



D4.12: Validation, verification, best practices and lessons learned (final version)

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EXECUTIVE SUMMARY

The present deliverable is the final document released within T4.6 "Functional and non-functional evaluation" describing the execution of testing activities performed on the final version of the Circularity Web Platform and the Circular Advisory Tool. The goal of this document is to provide an accurate depiction of how the test of the TREASURE system has been planned and executed, presenting an aggregated analysis of the assessment results.

Following the same evaluation process methodology defined in D4.11, TREASURE evaluation tasks comprise 5 phases:

- 1. Evaluation requirements definition: dedicated to the preparation of the preconditions for the test and the evaluation requirement consisting in validation purpose, test target, test perspectives and testers.
- Evaluation Specification: concerns definition of the metrics, split in functional and nonfunctional measures, the rating levels for evaluation and, finally, the criteria used for test assessment
- 3. Evaluation Design: provides the instruments, mainly test sheets, used by testers to accomplish the execution of the validation process. The test sheet consists in 4 main sections:
 - o Test Case References
 - Test Script
 - Functional Evaluation
 - Non-Functional Evaluation
- 4. Execution Phase: assigned to test performance by the appointed tester with the support of the development team, using the tools provided in the design stage.
- 5. Evaluation Reporting: focuses on summarizing the results coming from the previous stage, providing key takeaways for specific module assessment and comparison.

The execution phase is described in detail in 36 with full depiction of the tests carried out in all modules of both the Circularity Web Platform and the Circular Advisory Tool, that is the Disassemblability, Recycling and Eco-design modules with their equivalent advisory applications. For each module, the tests have been performed taking into consideration two major elements: the purpose of the specific application component to check the system availability for the key sections relevant for the user; and the type of users that operates on the modules according to the background and role in the automotive value chain. More specifically, the following categories of users have been identified: beginning of life actors (designers, carmakers), end of life actors (dismantlers, recyclers) and domain experts.

Overall, a total amount of 1135 tests have been executed for both functional and non-functional assessments. For the former, the whole script is provided with the bar chart and score table summarizing the results while for the latter only the global score is presented in form of radar graph and score table due to its length. Both sections of the test sheet contain evaluation and recommendations for the assessment of software product quality, providing a process description for stating the application compliance to specific requirements.

The full test reports are provided as annex attached at the present document.



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1 Introduction

The aim of this document is to provide an accurate description of the test plan and execution of the final version of TREASURE platform, considering all modules of both the Circularity Web Platform and the Circular Advisory Tool.

The TREASURE platform aims at becoming a reference tool for the circularity assessment in Europe for the automotive value chain. The platform integrates three different modules: (1) Disassemblability; (2) Recyclability, and (3) Eco-design modules. These modules are addressed to stakeholders from the beginning of life (designers and carmakers) to the end of life (dismantlers and recyclers), with the aim to improve circularity in the automobile sector by sharing essential information among the stakeholders of the value chain. The platform modules are complemented by the Circular Advisory Tool which provides support to both BoL and EoL actors in the different decision-making moments that occur in the car component design phase. It works on top of TREASURE platform, playing the role of sustainability enabling technology to support designers in the decision-making process with the aim at identifying the most circular path for car disassembly, recycling and design operations. Decisions are supported considering the environmental, economic, social and circular aspects related to each process. Thus, the tool has been designed to provide data in a clear and user-friendly approach, mainly based on tables and chart, to maximize the user experience.

The evaluation process has been performed on both tools. The test is conducted on two major streams: functional and non-functional evaluation of the system. The validation process encompasses from one side a software quality evaluation methodology and, for the other, the performance indicators mechanism resulting in TSS (Test Sheet Score) score.

Thus, the document is divided in two major sections:

- Overview and methodology of the validation process, presenting the reference framework used, the process phases followed for the preparation, execution and evaluation of the TREASURE platform.
- Test execution and reports, presenting the details of the test performance and result for each platform module and type of user.

Finally, the conclusions, lessons learned and future steps for the refinement of testing activities close the chapter.

As annex to the document, the full test sheets are provided.

1.1 Project Overview

TREASURE — "leading the Transition of the European Automotive SUpply chain towards a circular future" wants to support the transition of the automotive sector towards Circular Economy (CE), by providing a concrete demonstration of how the industry can benefit from the adoption of Circular Economy practices and principles, both from a business and a technological perspective. One of the main encountered issues highlighted by the automotive actors, refers to the huge information gap existent between Beginning-of-Life (BoL) and Endof-Life (EoL) actors along the whole automotive value chain up to the final consumers.

TREASURE aims at filling this gap through the development of a circular assessment tool able to connect and facilitate the interaction among the key involved stakeholders dedicated to car electronics: car parts suppliers, car makers, dismantlers, and shredders. On the other hand,



TREASURE goal consists in assisting both BoL and EoL actors in performing their operations, (best recycling options for optimal recovery), taking the most suitable decision according to up-to-date information, as well as in assessing the impact and the effect of their decision on the final customers.

To this aim, a web-based platform will be developed as a new information sharing tool among all stakeholders, both in forward and backward directions, ensuring secure access and confidentiality. The platform will indeed be developed in order to enhance the connection among the actors, making information available through specific modules that will be built and tailored according to their needs.

The platform will be tested with a set of dedicated demonstration actions within the project boundaries. However, it will be designed assuring that its potential can go beyond the project and its sustainability will be properly defined and agreed with the TREASURE consortium, guaranteeing the possibility for its scale-up and adoption by a wider group of stakeholders.

1.2 Scope of the deliverable

The Evaluation process carried out in T4.6 had as major goal testing all technical developments performed in T4.4. and T4.5, thus concerning both the Circularity Web Platform and the Circular Advisory Tool. The validation activities have been executed taking into consideration the purpose of the specific application component in order to check the system availability for the key part of the platform according to the most relevant tasks the user will perform. Moreover, the evaluation process was performed considering the several types of users according to their role in the automotive sector: beginning of life actors (designers and carmakers), end of life actors (dismantlers, recyclers) and domain experts.

1.3 Contribution to other WPs

Given the fact that the present document is the final step of the functional and non-functional evaluation of task T4.6, it's evident that the activities carried out in this task are strongly connected with T4.4 "Design of the eco-design, dismantling and recycling modules" and T4.5 "Circular Al-based Advisory Tool". The tests have been performed on the final version of the platform modules. Since the TREASURE project is based on an iterative approach, the outcomes of this document have been heavily influenced by activities planned in tasks T4.4 and T4.5. Furthermore, this deliverable is the second version of D4.11 and, therefore, consists in the evaluation of the final version of the TREASURE platform that was improved based on the recommendations provided in the previous test assessments.

Moreover, the evaluation process performed for the final version of the platform will also affect the post-project work as discussed in the conclusions in 245. Finally, the TREASURE Platform has been assessed in the demonstration phase performed within WP6, evaluating the procedure performances in terms of circularity and economic feasibility.



2 TREASURE Evaluation Methodology

Evaluation is the systematic determination of the extent to which an entity meets its specified criteria. The evaluation of software product quality is vital to both the acquisition and development of software. The relative importance of the various characteristics of software quality depends on the intended usage or objectives of the system of which the software is a part; software products need to be evaluated to decide whether relevant quality characteristics meet the requirements of the system.

2.1 Methodological Approach

TREASURE Evaluation Process is based on the reference methodology defined by the standard ISO/IEC 25040:2011 "Systems and software engineering — Systems and software Quality Requirements and Evaluation" (SQuaRE). The SQuaRE set of standards cover two main processes: software quality requirements specification and software quality evaluation, supported by a software quality measurement process. The purpose is to support specification and evaluation of quality requirements by establishing specific criteria for their measurement and evaluation. The SQuaRE standards include a quality model for aligning user definitions of quality with attributes of the development process, providing recommended set of software product quality reference guidelines that can be used by developers and evaluators.

This standard has been chosen due to its relevance for project activities since the ISO/IEC 25040:2011 concerns the same scope of application of TREASURE, being focused on software quality evaluation. Moreover, this system can be used for different purposes and approaches during or after the development process, including quality assessment of pre-developed software, commercial-off-the-shelf software or custom software. This flexibility is in line with the technical implementation of TREASURE platform that requires an agile approach based on an iterative procedure focused on demonstrator requirements and emerging needs for technological improvements.

The Evaluation Process, foreseen in ISO/IEC 25040:2011 standards, has been adapted to the validation of TREASURE system, using the same reference framework for defining the testing methodology, starting from the characterization of functional and non-functional properties to its related execution procedure step by step.

2.2 Evaluation process

TREASURE testing process has been conducted following a set of five phases derived from the reference evaluation process which are described in detail in next sub-chapters and represented in the figure below.



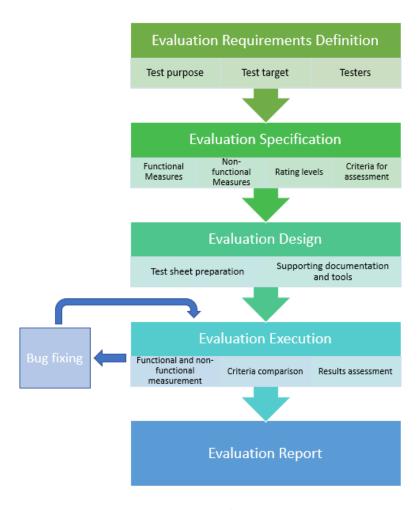


Figure 2.1: TREASURE Evaluation Process

TREASURE Evaluation Process has been designed to apply not only to the functional evaluation but also to non-functional characteristics, adapting the SQuaRE standards to project purpose and scope. A summary of the whole process is here outlined while the detailed description of the work performed in each phase is provided in the following chapters.

- 1. Evaluation requirements definition: it is the first phase of the assessing process dedicated to preliminary activities that are essential for the execution of the following tasks. This step is split is two stages: firstly, the preparation of the preconditions for the test, including availability of the system and responsibilities; secondly, the evaluation requirement consisting in the identification of validation purpose, test target, test perspectives and testers. More details can be found in 2.2.1.
- 2. Evaluation Specification: the second phase concerns activities related to the definition of the metrics, split in functional and non-functional measures, the rating levels for evaluation and, finally, the criteria used for test assessment. A detailed description is provided in 2.2.2.
- 3. Evaluation Design: the third phase provides the instruments, mainly test sheets, used by testers to accomplish the execution of the validation process. The test sheet consists in 4 main sections:
 - a. Test Case References
 - b. Test Script
 - c. Functional Evaluation



d. Non-Functional Evaluation

More details can be found in **Error! Reference source not found.**.

- 4. Execution Phase: the fourth phase is assigned to test performance by the appointed tester with the support of the development team, using the tools provided in the design stage. This step is paramount for the technical improvements of TREASURE platform since, thanks testing activities, lacks and problems are discovered. These bugs will be fixed in order to repeat the evaluation process in an iterative approach. More details on the step process, including the test plan, are reported in 2.2.4, while the activities report is presented in chapter 3 with a comprehensive description of how the tests have been conducted and related outcomes.
- 5. Evaluation Reporting: the final phase focuses on summarizing the results coming from the previous stage, providing key takeaways for specific module assessment and comparison. This topic is addressed in 2.2.5 and extensively reported in chapter 3.

2.2.1 Evaluation Requirements Phase

The first step in the evaluation process is to establish the requirements of the evaluation. To perform this operation, it's primarily necessary to set preconditions for the test. In particular, in the evaluation preparation phase the consistence of TREASURE platform and its availability have been checked to ensure that all sections of the modules are operatives. This preliminary step is pivotal also for the validation execution since it's an essential condition for a smooth testing performance.

The Evaluation Requirements phase is composed of three stages, the test purpose definition, the test target identification and the tester appointment. Their description is provided in the following sections.

2.2.1.1 Test purpose

The goal of this task is to document the purpose for evaluating the quality of the software, deciding on the acceptance of the intermediate (for this deliverable) and final result. In the project scope, the goal of the test performed is to evaluate and assess overall TREASURE platform, executing the validation on all modules of both the Circularity Web Platform and the Circular Advisory Tool.

TREASURE platform aims at becoming a reference tool for the circularity assessment in Europe for the automotive value chain. The platform integrates three different modules: (1) Disassemblability; (2) Recyclability, and (3) Eco-design modules. These modules are addressed to stakeholders from the beginning of life (designers and carmakers) to the end of life (dismantlers and recyclers), with the aim to improve circularity in the automobile sector by sharing essential information among the stakeholders of the value chain. The platform modules are complemented by the Circular Advisory Tool which provides support to both BoL and EoL actors in the different decision-making moments that occur in the car component design phase. It works on top of TREASURE platform, playing the role of sustainability enabling technology to support designers in the decision-making process with the aim at identifying the most circular path for car disassembly, recycling and design operations. Decisions are supported considering the environmental, economic, social and circular aspects related to each process. Thus, the tool has been designed to provide data in a clear and user-friendly approach, mainly based on tables and charts, to maximize the user experience.

The integrated TREASURE system test has been addressed by different perspectives in order to cover the different aspects of this complex and evolutionary system. To achieve this goal, the



test object may differ according to which platform modules is taken into consideration with the aim at focusing the attention to key elements that affect the user experience. In fact, since each module has a specific purpose, some sections of the platform are more relevant from a user perspective. For this reason, the test has been planned to focus on determined operations to be performed or tables/buttons to visualize/interact with, in order to ensure a comprehensive evaluation. From a technical point of view this approach allows the system to be tested by different perspectives reaching the goal to test all the major functionalities of the system contained in the 4 major block of the system: Disassemblability module, Recyclability module, Eco-Design module and the Circular Advisory Tool, including their integrations. From a non-technical point of view this approach allows the acceptability of the software to be checked with the users; from one hand, testing the aspects related with the data services availability and their retrieval/consumption, and on the other hand the test of the evolutionary behavior of the system that is crucial for its usage after the end of the project.

2.2.1.2 Test targets

The Evaluation process carried out in T4.6 had as major goal testing all technical developments performed in T4.4. and T4.5, thus concerning both the Circularity Web Platform and the Circular Al-based Advisory Tool. The validation activities have been executed taking into consideration the purpose of the specific application component in order to check the system availability for the key part of the platform according to the most relevant tasks the user will perform. More specifically, regarding the Circularity Web Platform, the evaluation procedure concerns the following sections:

- Disassemblability Module
- Recyclability Module
- Eco-design Module

If we consider the Circular Advisory Tool, the testing activities regard the following applications:

- Disassemblability Advisory Module
- Recyclability Advisory Module
- Eco-design Advisory Module

For all this platform sections the testing activities focus on the following key operations: access the TREASURE Circularity Web Platform login as the type of user/s foreseen by each module; select the desired car part/component for which the relevant information has to be inspected; assess that every resource expected is present and displayed in the correct format; eventually exporting the detailed information in Excel format whenever needed.

It's important to note that the evaluation process has been carried out taking into consideration not only the different sections of the platform but also the several types of users. In fact, the following categories of users are possible based on the granted authoring rights:

• The regular user with visualization only mode for the Disassemblability module: the user can only see the platform content related to the standard disassembly dashboards, as well as the necessary in-between pages necessary for him/her to navigate the platform in a coherent way. No access to the Circular Advisory dashboards is foreseen for this type of user.



- The regular user with visualization only mode for the Recyclability module: the user
 can only see the platform content related to the standard recyclability dashboards, as
 well as the necessary in-between pages necessary for him/her to navigate the platform
 in a coherent way. No access to the Circular Advisory dashboards is foreseen for this
 type of user.
- The regular user with visualization only mode for the Eco-design module: the user can only see the platform content related to the standard eco-design dashboards, as well as the necessary in-between pages necessary for him/her to navigate the platform in a coherent way. No access to the Circular Advisory dashboards is foreseen for this type of user.
- The advisory user with visualization mode for the Circular Advisory dashboards: this
 user can access the three advisory dashboards (Disassemblability Advisory dashboard,
 Recyclability Advisory dashboard and Eco-design advisory dashboard), as well as the
 necessary in-between pages necessary for him/her to navigate the platform in a
 coherent way. No access to the regular platform dashboards is foreseen for this type
 of user.

The first, second and third types of users are present for the Circularity Web Platform regular platform modules while the fourth user is foreseen for the Circular Advisory Tool platform modules.

2.2.1.3 Testers

Testers have been selected in the TREASURE project following the proximity to the characteristics of the different kind of users presented in the chapter above due to their professional background and technological expertise. To ensure a comprehensive evaluation that includes not only technical matters but also overall user experience, two types of testers have been identified:

- End user: he focuses on the platform usability and clarity with respect to the individual use case and goals. For the final round of this validation process, the end users have been selected, within the TREASURE project, from both BoL and EoL fields in order to gain valuable insights across the whole automotive value chain. In particular:
 - o For the BoL the involved actors are SEAT, WALTERPACK and EUROLCDS.
 - o For the EoL the involved actors are POLLINI and ILSSA.
- Domain expert: he focuses on the accuracy of the information contained in the
 platform modules with attention on the graphical representation and
 understandability. For this category of users, two key partners have been selected
 within the TREASURE project to obtain feedback on the overall flow of information
 between platform modules. The involved actors are TNO and UNIVAQ.

The testers have performed both functional and non-functional tests, reporting the results on the evaluation factsheets. Each actor has been provided with dedicated credentials to access the relevant portion of the platform under evaluation, as well as the detailed instructions on how to perform the assessment.

During the evaluation of the platform each actor had the opportunity to test both the module(s) relevant to his field of knowledge and also modules that are not directly linked with the purpose of his contribution or his activity. The reason behind this "blind" test was to simulate the interaction of a novel user accessing the platform for the first time, without prior



knowledge on the visualization style of the content or graphic arrangement of the information. This activity simulates the interaction of a new user which may be a domain expert on its field of knowledge but may not be accustomed to the specific way the TREASURE platform presents the information; it serves as a general benchmark on the platform ability to efficiently vehiculate the information and measure the onboarding effort required on the user's side.

2.2.2 Evaluation Specification

In this activity the evaluation modules and the decision criteria for quality measures are specified by selecting metrics that cover all software validation requirements. Measurement procedures concern the platform quality characteristic (or sub characteristic) they claim to be measuring with sufficient accuracy to allow criteria to be set and comparisons to be made.

2.2.2.1 Indicators and Rating for functional evaluation

To measure the success of the test a set of indicators have been prepared to be matched in advance with the real measurement had during the test. For the functional test the tester should indicate the availability of the running functionality by "Yes/No/Partial".

Another important test for the functionalities is the error check, that is if the system manages and prompts correctly to the users the errors occurred. For example, at the time an empty list is provided, back or a wrong command is launched. For each error the user should check the behavior of the system and report the right behavior by "Yes/No/Partial".

To total amount of Success/Partial/Fail is given a specific score that, converted in percentage, allows to assess the overall test result.

Expected results are visible in the table below.

Table 2.1: Mapping of functional evaluation measures

| Mapping of measures | | | | |
|---------------------|----------|-------------|-------------|-----------|
| | Poor | Fair | Good | Excellent |
| TSS Success | [0 0.25] |]0.25 0.50] |]0.50 0.75] |]0.75 1] |
| TSS Partial | [0 0.25] |]0.25 0.50] |]0.50 0.75] |]0.75 1] |
| TSS Fail |]0.75 1] |]0.50 0.75] |]0.25 0.50] | [0 0.25] |

2.2.2.2 Indicators and Rating for non-functional evaluation

The non-functional properties are derived from a reference framework based on SQuaRE standards that provide the background for the evaluation according to seven dimensions. These aspects take into consideration are:

- Dim.A Effectiveness -- usefulness to the network/company: it refers to the benefit or value deriving from the platform use to reach company objectives, i.e. outcomes/ value-based perspective, goal orientation, degree of task achievement, following business logic, benefits understandability, suitability to own environment/network.
- Dim.B Efficiency performance of the service: it concerns the generated improvements in executing a specific operation, i.e. time & resource to achieve a task, number of good and bad characteristics recalled by users, available commands not called upon.



- Dim.C Understandability/simplicity: it measures how understandable and clear the service is for the user, i.e. clarity, simplicity, visualization of complex things in the background.
- Dim.D Satisfaction & Attractiveness: it applies to user appreciation of the platform, i.e. comfort, running speed, emotional response/ attitudes (mental/ cognitive workload included) short response time, rewarding the user, social tools, first impression, feel of control.
- Dim.E Learnability, memorability: it regards how easy it is to learn to use the system and return back after a break in usage, i.e. training support, gradual starting, path from starter to power player.
- Dim.F Use preparation & maintenance: it measures how easy the service is to take into use and maintain, i.e. customizability, portability, adaptability, implementation, low barriers.
- Dim.G Suitability to network/collaborative environment: it concerns how well the service fits to network environment, i.e. universality (diversity of users), requirement/capability level.

Several questions are provided to the user for each dimension. The users can answer to them with a number comprises from 0 (min) to 4 (max). Results are grouped by dimension, then aggregated for all users and then provided with a result number (average). A radar chart will summarize the values of the different dimensions in just one picture.

Expected results are visible in the table below.

Table 2.2: Mapping of non-functional evaluation measures

| Manning of measures | | | | |
|-------------------------------|-------|-------|-------|-----------|
| Mapping of measures | | | | |
| | Poor | Fair | Good | Excellent |
| Effectiveness | [0 1] |]1 2] |]2 3] |]3 4] |
| Efficiency | [0 1] |]1 2] |]2 3] |]3 4] |
| Understandability | [0 1] |]1 2] |]2 3] |]3 4] |
| Satisfaction & Attractiveness | [0 1] |]1 2] |]2 3] |]3 4] |
| Learnability | [0 1] |]1 2] |]2 3] |]3 4] |
| Use preparation & maintenance | [0 1] |]1 2] |]2 3] |]3 4] |
| Suitability | [0 1] |]1 2] |]2 3] |]3 4] |

2.2.3 Evaluation Design

The first phase is the creation of test sheet that was used by testers to have a reference about what has to be tested and to report the experience had during the test. The same template has been used by all testers for each platform module to ensure result uniformity.

The test sheet is composed by four main parts which are fully described in the following subchapters:



- Test Case References
- Test Script
- Functional Evaluation
- Non-Functional Evaluation

2.2.3.1 Test Case References

Test Case References section provides all the information about the test and the support for testers. It presents an identifier to the scenario in order to facilitate the merge between different copies of the same test.

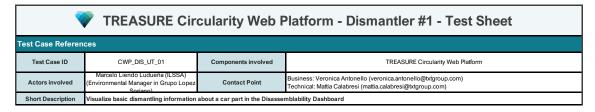


Figure 2.2: Test Sheet Template: Test Case References section

This upper section is composed by the following elements:

- Test Case ID: identify the id of the path built upon the demo case.
- Actor/s Involved: define the name of testers and the role they played in the test.
- Component/s Involved: depict the major components involved in the test.
- Contact point/s: testers are not alone in the execution phase; two experts are available
 to offer support: one for the front-end part and another person for the back-end part.
 In this section is defined the name of the contact points. In this way the support could
 be done by chat, by call or by remote desktop session.

2.2.3.2 Test Script

The test script section is devoted to the description of the steps that the user should do in the test. This serves as a guideline for the tester in order to ensure a homogenous process for all evaluation procedures regardless the platform module peculiarity.



Figure 2.3: Test Sheet Template: Test Script section

2.2.3.3 Functional Evaluation

The functional evaluation of the TREASURE platform is provided by the session *Functional Evaluation*, composed by a list of functionalities that will be tested during the execution of the test script and the expected result.

The functionalities list and the expected results are provided by the technical partner/s that describes the test script. The user should provide only the evaluation of the functionality inserting in the "passed Y/N/PARTIAL" box the result.

In addition to the functionalities, the user can also report remarks to provide additional information concerning the test results. This is particularly useful in case of Partial outcomes since it enables the user to give reason for its evaluation and indicate margin of improvements.



| TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet | | | | |
|--|--|--------|---------------------|----------|
| TSS _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | No comment | |
| Login to the Platform | User successfully logged in | YES | No comment | |
| User redirected to home page | Home page correctly opened | YES | No comment | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | No comment | <u> </u> |
| Select component to visualize | Modules selection page is shown for the selected component | YES | No comment | |

Figure 2.4: Test Sheet Template: Functional evaluation section

Results are summarized automatically at the end of the test sheet in a bar chart with clear indication of the score obtained in each evaluation category (Yes/No/Partial). It has to be noted that the TSS acronym refers to Test Sheet Score.

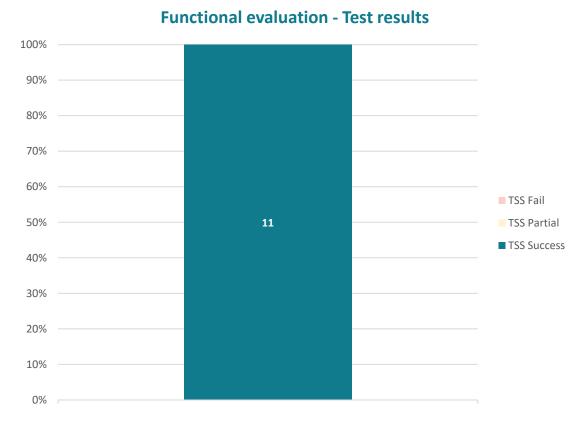


Figure 2.5: Test Sheet Template: Functional Evaluation Bar Chart

The score values shown in the bar chart refer to the corresponding data collected in the test results table below:

Table 2.3: Test Sheet Template: Summary of Functional Evaluation

| Functional Dimension | | |
|----------------------|-------------|--|
| | TSS Results | |
| TSS Success | 11 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |



2.2.3.4 Non-functional Evaluation

The non-functional evaluation is the fourth section of the test sheet. The questions to be answered are divided in the seven dimensions described in 2.2.2 and the user should only insert its answer in the proper column. The answer starts from 0 (disagree) to 4 (totally agree). Results are calculated automatically.



| | TREASURE Circularity Web Plan | | | | |
|---|--|---|-------------|--|-----|
| | Inctional Evaluation | | T 4 1 | | 4.0 |
| _ | ffectiveness usefulness to the network/company) | | Total | A manuar (0, 4) | 4.0 |
| # ^ 1 | Question | work | | Answer (0-4) 4 | |
| A1 | It is easy to understand the objective and benefit of the service to my organization/netv The outcome of the service is important / useful for the company/network. The service | | | 4 | |
| | company &network, for example by | creates value for my | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks - improving quality | | | 4 | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| | - supporting networking with other organizations | | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service | e. | | 4 | |
| A4 | What could be improved to make more value of the tool/service? | | | | |
| B (F | It's right, it doe fficiency - performance of the service) | esn't need any other tool | Total | | 4.0 |
| # | Question | | Total | Answer (0-4) | 4.0 |
| # B1 | The time and resources required to achieve the objectives with the service are reasonal | ble/moderate | | 4 | |
| B2 | The service runs fast enough. | 2.2,000.010. | | 4 | |
| B3 | The service does not require too many steps to achieve the result. | | | 4 | |
| B4 | All the functions are beneficial for my company/ network. | | | 4 | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | | |
| B6 | It's right, it doe | esn't need any other tool | | | |
| .C (U | nderstandability/simplicity) | | Total | | 3.7 |
| # | Question | | | Answer (0-4) | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 4 | |
| C2 | The concepts are understandable for my organization and in line with TREASURE termi | nology | | 3 | |
| C3 | The service offers sufficient guidance | | | 4 | |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory | and follows the | | 3 | |
| • | TREASURE style. | | | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role the actions required. | e and the purpose of | | 4 | |
| | The service is simple enough for practical use. The tasks do not look complex to perform | m. It is clear what is | | | |
| C6 | required for input. | | | 4 | |
| C7 C8 | The output of the service is clear and understandable. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| | | esn't need any other tool | | | |
| ס) ע. | | | | | |
| 44 | atisfaction & Attractiveness) | | Total | Anguar (0, 4) | 3.8 |
| | Question | ice | Total | Answer (0-4) | 3.8 |
| | Question The service is attractive to the user. I feel satisfied and comfortable when using the serv | | Total | Answer (0-4) | 3.8 |
| D1 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service can keep the control of the service, for example by pausing& continuing, canceling, sa | | Total | | 3.8 |
| D1 D2 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service are can keep the control of the service, for example by pausing& continuing, canceling, satarting again. | | Total | 4 | 3.8 |
| D1 D2 D3 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service is attractive to the user, I feel satisfied and comfortable when using the service I can keep the control of the service, for example by pausing& continuing, canceling, se starting again. The mental workload when using the service is low. | | Total | 4 4 3 | 3.8 |
| D1 D2 D3 D4 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service, loan keep the control of the service, for example by pausing& continuing, canceling, se starting again. The mental workload when using the service is low. The service rewards the user also personally | | Total | 4 4 3 4 | 3.8 |
| D1 D2 D3 D4 D5 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service, loan keep the control of the service, for example by pausing& continuing, canceling, sa starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. | | Total | 4 4 3 | 3.8 |
| D1 D2 D3 D4 D5 | Question The service is attractive to the user. I feel satisfied and comfortable when using the ser- I can keep the control of the service, for example by pausing& continuing, canceling, so starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | Total | 4 4 3 4 | 3.8 |
| D1 D2 D3 D4 D5 | Question The service is attractive to the user. I feel satisfied and comfortable when using the ser- I can keep the control of the service, for example by pausing& continuing, canceling, so starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | aving the status and | Total Total | 4 4 3 4 | 3.8 |
| D1 D2 D3 D4 D5 D6 .E (Le | Cuestion The service is attractive to the user. I feel satisfied and comfortable when using the service is attractive to the user. I feel satisfied and comfortable when using the service I can keep the control of the service, for example by pausing& continuing, canceling, se starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doe | aving the status and | | 4 4 3 4 4 4 Answer (0-4) | |
| D1 D2 D3 D4 D5 D6 .E (Le | Cuestion The service is attractive to the user. I feel satisfied and comfortable when using the ser I can keep the control of the service, for example by pausing& continuing, canceling, so starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it does the control of the could be improved to make more value of the tool/service? It's right, it does the could be improved to make more value of the tool/service? | aving the status and | | 4 4 3 4 4 4 Answer (0-4) | |
| D1 D2 D3 D4 D5 D6 E (Le | Cuestion The service is attractive to the user. I feel satisfied and comfortable when using the service is service is attractive to the user. I feel satisfied and comfortable when using the service I can keep the control of the service, for example by pausing& continuing, canceling, se starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it does are also to start using the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. | esn't need any other tool | | 4 4 3 4 4 4 4 4 4 4 4 3 3 4 4 4 3 3 4 3 | |
| D1 D2 D3 D4 D5 D6 E (Le # E1 E2 E3 | Cuestion The service is attractive to the user. I feel satisfied and comfortable when using the service is attractive to the user. I feel satisfied and comfortable when using the service I can keep the control of the service, for example by pausing& continuing, canceling, se starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it does arrability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions in | esn't need any other tool | | 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D1 D2 D3 D4 D5 D6 E (Le # E1 E2 E3 | Cuestion The service is attractive to the user. I feel satisfied and comfortable when using the service is attractive to the user. I feel satisfied and comfortable when using the service I can keep the control of the service, for example by pausing& continuing, canceling, so starting again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it does a canability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions in The service offers sufficient training support. | esn't need any other tool | | 4 4 3 4 4 4 4 4 4 4 4 3 3 4 4 4 3 3 4 3 | |
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Figure 2.6: Test Sheet Template: Non-Functional evaluation section

Results are summarized automatically at the end of the test sheet in a radio graph. Each dimension is represented on the different axis.



Table 2.4: Test Sheet Template: Summary of Non-Functional Evaluation

| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | |
| | Total | | | | |
| | 0.0 | | | | |

Non-functional evaluation - Test results

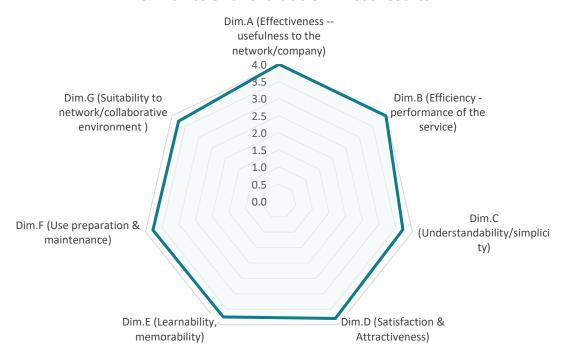


Figure 2.7: Test Sheet Template: Non-Functional Evaluation Radar Chart

2.2.4 Evaluation Execution

The execution of the test is conducted by selected users autonomously relying on the web availability of the TREASURE system. In case of troubles, users can receive online support from the contact point included in the test sheet. In case of bugs, the technical contact point takes in charge of their fix and a new execution can be done afterwards.

The output of the test execution is the filled in test sheet providing feedback on functional and non-functional aspects tested.

The test of the TREASURE platform has been done following the plan described below:



- Preparation of test sheet including online contact point and test factsheet by the 19th of April.
- On the 23rd of April testers receives the material and can start their activities supported online by the contact points.
- Starting from the 24th of April, test activities are performed with the submission of reports expected by the 10th of May.
- Test results are summarized and described in this deliverable submitted on the 31st of May.

Details of the execution including test sheets/scripts are reported in TREASURE Evaluation Execution together with evaluation reporting details.

2.2.5 Evaluation Reporting

The final phase of the test is the summary of the evaluation report within this deliverable. In the full description of the tests presented in TREASURE Evaluation Execution, conclusions regarding the validation activities and results are included. The output of this phase consists in two different items:

- Automatic evaluation results coming from measures and graphs.
- Plain text report summarizing the test and the experience had by testers coming also from plain text suggestions inserted in the test sheets.



3 TREASURE Evaluation Execution

In this section details of the execution of the test and the summary of results are reported. A specific chapter is provided for each module and user type according to the categories presented in 2.2.1.2. Each chapter is composed by an introduction of the scenario, information about test sheet/s used by testers and the report about the scenario evaluation.

Overall, a total amount of 1135 tests have been executed. A detailed description of functional and non-functional evaluations of the system have been performed approaching the project platform from 66 different perspectives corresponding to all modules of both the Circularity Web Platform and the Circular Advisory Tool, that is the Disassemblability, Recycling and Ecodesign Module with its equivalent advisory application for each end user, as follows:

- I. Circularity Web Platform
 - Disassemblability Module: the functional and non-functional evaluation was carried
 out considering not only the main page of the platform but also the detail pages
 (referenced as Level 1 and Level 2) that provides additional information on the
 assessment of specific data about individual recycling rates for a car part/component.
 The test users participating to the disassemblability module assessment are listed
 below:
 - Evaluation tester #1 (EUROLCDS)
 - o Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - Evaluation tester #5 (TNO)
 - o Evaluation tester #6 (UNIVAQ)
 - Evaluation tester #7 (WALTERPACK)
- Recyclability the functional and non-functional evaluation was carried out considering
 not only the main page of the platform but also the detail page that provides
 additional information on materials recycling rates for the desired recyclability level
 and recycling route. The test users participating to the recyclability module assessment
 are listed below:
 - Evaluation tester #1 (EUROLCDS)
 - Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - Evaluation tester #5 (TNO)
 - Evaluation tester #6 (UNIVAQ)
 - Evaluation tester #7 (WALTERPACK)
- Eco-design module: the functional and non-functional evaluation was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more. The test users participating to the eco-design module assessment are listed below:
 - Evaluation tester #1 (EUROLCDS)
 - Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - Evaluation tester #5 (TNO)



- Evaluation tester #6 (UNIVAQ)
- Evaluation tester #7 (WALTERPACK)
- II. Circular Advisory Tool:
 - Disassemblability Advisory Module: the functional and non-functional evaluation was carried out considering the information provided in the main advisory dashboard. The test users participating to the disassemblability advisory module assessment are listed below:
 - Evaluation tester #1 (EUROLCDS)
 - Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - o Test User #1
 - Test User #2
 - Evaluation tester #5 (TNO)
 - Evaluation tester #6 (UNIVAQ)
 - Evaluation tester #7 (WALTERPACK)
 - Recyclability Advisory Module: the functional and non-functional evaluation was carried out considering the information provided in the main advisory dashboard. The test users participating to the recyclability advisory module assessment are listed below:
 - Evaluation tester #1 (EUROLCDS)
 - o Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - Test User #1
 - o Test User #2
 - Evaluation tester #5 (TNO)
 - Evaluation tester #6 (UNIVAQ)
 - Evaluation tester #7 (WALTERPACK)
 - Eco-design Advisory Module: the functional and non-functional evaluation was carried out considering the information provided in the main advisory dashboard. The test users participating to the eco-design advisory module assessment are listed below:
 - Evaluation tester #1 (EUROLCDS)
 - Evaluation tester #2 (ILSSA)
 - Evaluation tester #3 (POLLINI)
 - Evaluation tester #4 (SEAT)
 - Test User #1
 - o Test User #2
 - Evaluation tester #5 (TNO)
 - Evaluation tester #6 (UNIVAQ)
 - Evaluation tester #7 (WALTERPACK)

For the functional test the whole script is provided with the bar chart summarizing the results while for the non-functional evaluation the overall score only is presented in form of radar graph due to its length. The full test reports are provided as annex attached at the present document.



3.1 Disassemblability Module

The Evaluation process performed in the Disassemblability module of the Circularity Web Platform mainly focused on user log in, search and visualization of the selected car component and use of the assessment instruments to evaluate disassembly procedures, including the details pages for disassemblability levels 1 and 2.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

The regular user with visualization only mode for the Disassemblability module: the
user can only see the platform content related to the standard disassembly
dashboards, as well as the necessary in-between pages necessary for him/her to
navigate the platform in a coherent way. No access to the Circular Advisory
dashboards is foreseen for this type of user.

3.1.1 Evaluation tester #1 (EUROLCDS)

3.1.1.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with only a remark on the visualization of the content of the materials chart when the percentage value for a certain item is verry low and the corresponding label is displayed small.



| TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet | | | | | | | |
|--|--|--|---|--|-----------------------------------|--|--------|
| Test Case Reference | ces | | | | | | |
| Test Case ID | CWP_DIS_U | CWP_DIS_UT_01 Components involved | | | TREASURE Circularity Web Platform | | |
| Actors involved | EuroLCDs | | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic dismant | ing information | about a car part in the Disasser | mblability Dashb | oard | | |
| Test Script | | | | | | | |
| Login with the evaluat In the search bar, sea Click the "OPEN DIS" Assess that every information | 1. Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN DIS" button in the "Disassemblability Module" card. 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. | | | | | | |
| TSS | 10 | | nartial 1 | | | TSS _{fail} | 0 |
| Functionalities | | Expected Resu | | | Passed | Remarks | |
| Access to the Circularity V | Neb Platform | Circularity Web Platform shows login page User successfully logged in | | | YES | | |
| Login to the Platform | | | | | YES | | |
| User redirected to home page | | Home page correctly opened | | | YES YES | | |
| Search for "combimeter" car part | | | elevant car parts shows up s selection page is shown for the selected component | | | | |
| | | | assembly dashboard is shown for the selected component | | YES | | |
| Click the "OPEN DIS" button in the "Disassemblability Module" card | | | <u> </u> | | YES | | |
| | | | nformation for the desired section is displayed | | YES | | |
| Assess "Materials composition" & "Material Costs" pie charts section | | All relevant information for the desired section is displayed | | | PARTIAL | In material cost side the costs are barely v | isible |
| Assess "Disassembly times (manual)" section | | All relevant info | rmation for the desired section is | displayed | YES | | |
| Assess "Disassembly met | trics" section | All relevant info | rmation for the desired section is | displayed | YES | | |
| "Disassemblability metrics" section | | The "Disassembly cost (lowerbound", "Disassembly cost" and "Disassembly cost (upperbound)" metrics adjust their values accordingly | | YES | | | |
| Assess "Cobot metrics" section All relevant | | All relevant info | rmation for the desired section is | displayed | YES | | |
| Assess "Feedback for recyclers" section All relevant in | | All relevant info | rmation for the desired section is | displayed | YES | | |
| Select different recycling routes from the The feedback of "Disassembly & recycling route" dropdown route | | | splayed changes depending on t | the selected | YES | | |
| Press the "Add feedback" | | The add feedba | ck popup appears | | YES | | |
| | | correctly inserted for the current | ly selected | YES | | | |
| Assess "components extraction priority vs disassembly time" section | | | | displayed | YES | | |

 $\textit{Figure 3.1: Disassemblability module - Functional evaluation for user \textit{EUROLCDS - Homepage}}\\$

The evaluation shows no TSS fail with only one TSS partial which is related to the materials composition remark above, granting a satisfactory score overall, as visible in the figure below.





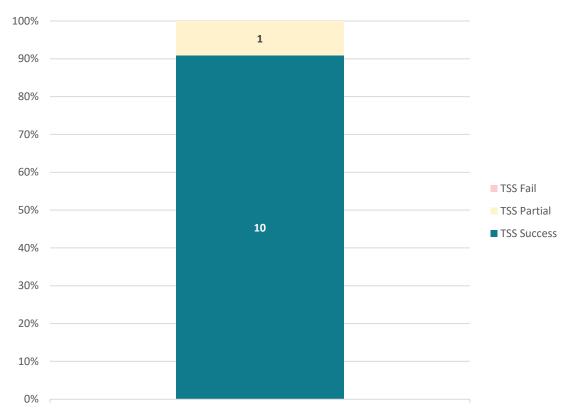


Figure 3.2: Disassemblability module -Visual results of the functional evaluation for user EUROLCDS - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 10 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.3: Disassemblability module -Tabular results of the functional evaluation for user EUROLCDS - Homepage

Considering the details page instead, the test sheet below shows all tests have passed successfully with no additional steps to be performed.



| • | IREASU | JRE Circ | ularity We | eb Plat | ttorm | - Dis | mantler #2 - | lest She | et | |
|--|--|--|--|---|--------------|--|---|----------|----|--|
| Test Case Referen | ces | | | | | | | | | |
| Test Case ID | (CWP_DIS_U CWP_DIS_U | | | | | | | | | |
| Actors involved | EuroLCD | Business: Veronica Antonello (veronica.antonello@bttgroup.com) Technical: Mattia Calabresi (mattia.calabresi@bttgroup.com) | | | | | | | | |
| Short Description | Assess and export spec | cific information ab | out a car part disasse | embly time fro | om the Disa | ssemblabilit | y Dashboard | | | |
| est Script | | | | | | | | | | |
| 6. Click the info button next to the "Level 2" metric. 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct. 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: 6. Click the info button next to the "Level 1" metric (CWP DIS UT 02) | | | | | | | | | | |
| NOTE: The following pr | ocedures have a similar | r interaction model | | , , | | | st case for brevity: | | | |
| IOTE: The following pr Click the info button | ocedures have a similar next to the "Level 1" me | r interaction model etric (CWP_DIS_U | Γ_02) | and are group | | | - | | 0 | |
| OTE: The following process TSS Success | ocedures have a similar | r interaction model | Γ_02) | and are group | | | st case for brevity: TSS _{fell} Remarks | | 0 | |
| OTE: The following process and the control of the c | rocedures have a similar next to the "Level 1" me 13 | r interaction model etric (CWP_DIS_U* TSS_s_ Expected Results | Γ_02) | and are group | | the same tes | TSS _{fail} | | 0 | |
| OTE: The following properties. Click the info button TSS success unctionalities ccess to the Circularity | rocedures have a similar next to the "Level 1" me 13 | r interaction model etric (CWP_DIS_U* TSS_s_ Expected Results | T_02) | and are group | | the same tes | TSS _{fail} | | 0 | |
| OTE: The following process to the Circularity ogin to the Platform | rocedures have a similar next to the "Level 1" me 13 | r interaction model etric (CWP_DIS_U [*] TSS _{ner} Expected Results Circularity Web Pla | T_02) tiol 0 ttform shows login page ogged in | and are group | | the same tes Passed YES | TSS _{fail} | | 0 | |
| IOTE: The following process to the Circularity ogin to the Platform Iser redirected to home | rocedures have a similar next to the "Level 1" me 13 Web Platform | r interaction model etric (CWP_DIS_U [*] TSS_ner Expected Results Circularity Web Pla User successfully I | T_02) tipl 0 ttform shows login page ogged in ttly opened | and are group | | Passed YES YES | TSS _{fail} | | 0 | |
| IOTE: The following pr. Click the info button TSS unctionalities ccess to the Circularity ogin to the Platform liser redirected to home earch for "combineter" | rocedures have a similar next to the "Level 1" me 13 Web Platform | r interaction model etric (CWP_DIS_U* TSS_sec_Expected Results Circularity Web Pla User successfully I Home page correct List of relevant car | T_02) tipl 0 ttform shows login page ogged in ttly opened | and are group | ped under t | Passed YES YES YES | TSS _{fail} | | 0 | |
| IOTE: The following pr. Click the info button TSS | rocedures have a similar next to the "Level 1" me 13 Web Platform | r interaction model etric (CWP_DIS_UTTSS Expected Results Circularity Web Pla User successfully it Home page correct List of relevant car Modules selection | T_02) titorm shows login page ogged in the opened parts shows up | and are group | ped under t | Passed YES YES YES YES YES | TSS _{fail} | | 0 | |
| OTE: The following pr Click the info button TSS | ocedures have a similar next to the "Level 1" me 13 | r interaction model stric (CWP_DIS_UTSS_astrong TSS_astrong TSS_as | T_02) Ithorn shows login page ogged in the page is shown up page is shown for the is s (manual)" section is p | selected component and ha | ped under t | Passed YES YES YES YES YES YES YES YES YES | TSS _{fail} | | 0 | |
| OTE: The following pr Click the info button TSS | ocedures have a similar next to the "Level 1" me 13 | r interaction model etric (CWP_DIS_UTSS | T_02) ittorm shows login page ogged in the parts shows up page is shown for the soard is shown for the soard is shown for the stream of the parts shown for the stream of the page is shown for the stream of the stream of the page is shown for the stream of the | selected composesent and ha | ped under t | Passed YES YES YES YES YES YES YES | TSS _{fail} | | 0 | |
| IOTE: The following pr Click the info button TSS | ocedures have a similar next to the "Level 1" me 13 | r interaction model etric (CWP_DIS_UTSS | T_02) Ithorn shows login page ogged in the page is shown up page is shown for the is s (manual)" section is p | selected composesent and ha | ped under t | Passed YES YES YES YES YES YES YES YES YES | TSS _{fail} | | 0 | |
| IOTE: The following processing the control of the c | ocedures have a similar next to the "Level 1" me 13 | r interaction model stric (CWP_DIS_U" TSS | T_02) ittorm shows login page ogged in the parts shows up page is shown for the soard is shown for the soard is shown for the stream of the parts shown for the stream of the page is shown for the stream of the stream of the page is shown for the stream of the | selected component and hatrics | ped under to | Passed YES | TSS _{fail} | | 0 | |
| IOTE: The following pr i. Click the info button TSS | ocedures have a similar next to the "Level 1" me 13 | r interaction model tric (CWP_DIS_U" TSS | T_02) Ifform shows login page ogged in the page ogged in the parts shows up page is shown for the solored is shown for the solored is shown for the solored in the page is correctlevel 2) | selected composeent and hatrics | ped under to | Passed YES | TSS _{fail} | | 0 | |
| NOTE: The following properties of the circumstantial contents of the Circularity cogin to the Platform User redirected to home bearch for "combineter" belief to more official component to visualize the "DFR DIS" but davigate to the "Disasser ection. Press the info button next Assess the parts table | web Platform page car part ualize ton in the "Level 1" me to the "Level 2" metric to the "Difficulty level" | r interaction model tric (CWP_DIS_U" TSS | T_02) Ittorm shows login page ogged in the parts shows up page is shown for the soard is page in the page in the page is correctly displays all the releval of the page is correctly displays all the releval | selected comp selected comp resent and ha trics trics call y shown | pped under f | Passed YES | TSS _{fail} | | 0 | |
| IOTE: The following process to the Circularity of the Platform Search Component to visualization of the Platform Search for "Combineter" idelect component to visualization to the "DEAD DIS" but alwaygate to the "Disasser ection. Tess the info button next season the parts table research to "combineter" in the "Disasser ection. | rocedures have a similar next to the "Level 1" me 13 | r interaction model tric (CWP_DIS_U" TSS | T_02) ttorm shows login page ogged in the property of the page is shown for the page is correctlevel 2) page | selected comp selected comp resent and ha trics trics call y shown | pped under f | Passed YES | TSS _{fail} | | 0 | |

Figure 3.4: Disassemblability module - Functional evaluation for user EUROLCDS - Details page





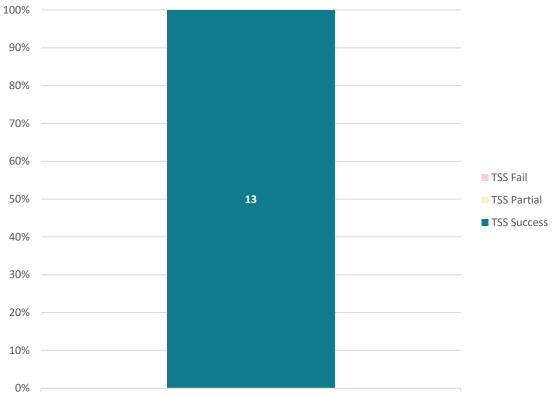


Figure 3.5: Disassemblability module -Visual results of the functional evaluation for user EUROLCDS - Details page

| Results Assessment | | | |
|----------------------|-------------|--|--|
| Functional Dimension | | | |
| | TSS Results | | |
| TSS Success | 13 | | |
| TSS Partial TSS Fail | 0 | | |
| TSS Fail | 0 | | |

Figure 3.6: Disassemblability module -Tabular results of the functional evaluation for user EUROLCDS - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and most results are TSS Success.

3.1.1.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, full ranking has been achieved by learnability with reasonable values for the other dimensions, while more emphasis should be put on collaboration.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | |
| Dim.C (Understandability/simplicity) | 3.3 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.8 | | | |
| | Total | | | |
| | 3.4 | | | |

Figure 3.7: Disassemblability module – Tabular results of the non-functional assessment for user EUROLCDS -Homepage

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

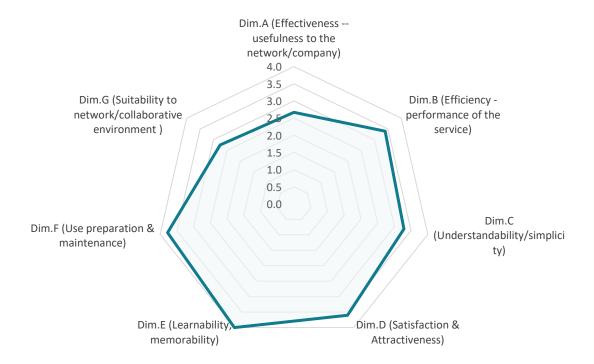


Figure 3.8: Disassemblability module – Visual results of the non-functional assessment for user EUROLCDS - Homepage

If we consider the non-functional evaluation of the details page, full ranking has been achieved by satisfaction and attractiveness with reasonable values for the other dimensions, while more emphasis should be put on collaboration.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | |
| Dim.C (Understandability/simplicity) | 3.3 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.8 | | | |
| | Total | | | |
| | 3.4 | | | |

Figure 3.9: Disassemblability module – Tabular results of the non-functional assessment for user EUROLCDS - Details page

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

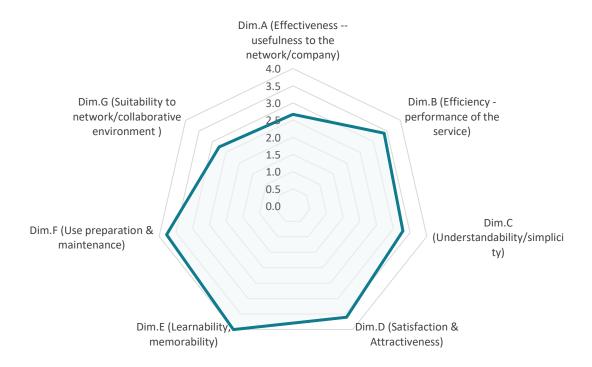


Figure 3.10: Disassemblability module – Visual results of the non-functional assessment for user EUROLCDS - Details page

3.1.2 Evaluation tester #2 (ILSSA)

3.1.2.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.



Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

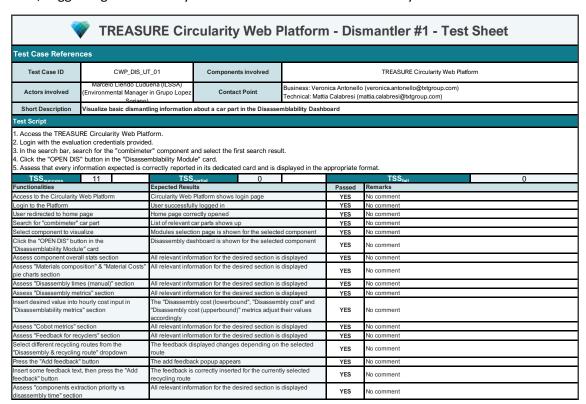


Figure 3.11: Disassemblability module - Functional evaluation for user ILSSA - Homepage



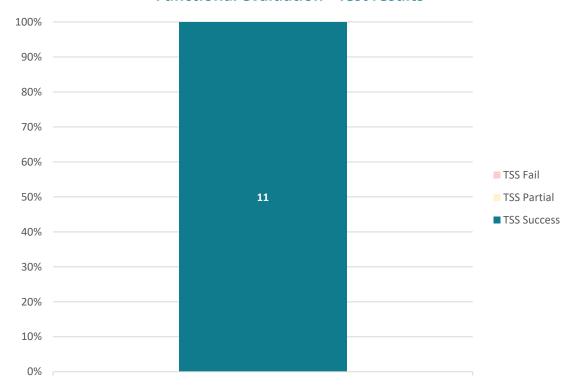


Figure 3.12: Disassemblability module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 11 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.13: Disassemblability module -Tabular results of the functional evaluation for user ILSSA - Homepage

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



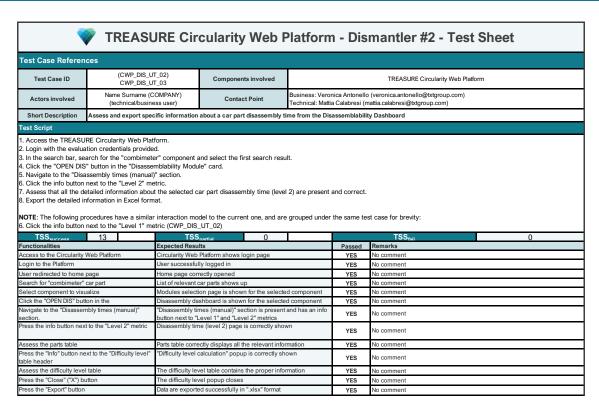


Figure 3.14: Disassemblability module - Functional evaluation for user ILSSA - Details page

Concerning the details page instead, the evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.

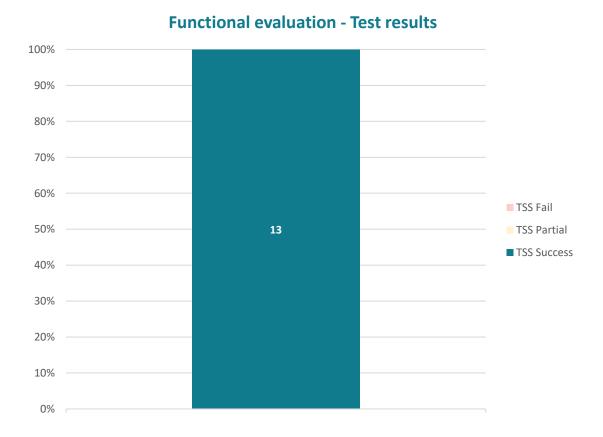


Figure 3.15: Disassemblability module -Visual results of the functional evaluation for user ILSSA - Details page



| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 13 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.16: Disassemblability module -Tabular results of the functional evaluation for user ILSSA - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.2.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, full ranking has been achieved by effectiveness and efficiency with high values also for the other dimensions, indicating overall satisfaction for the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | |
| | Total | | | |
| | 3.8 | | | |

 $\textit{Figure 3.17: Disassemblability module-Tabular results of the non-functional assessment for user \textit{ILSSA}-Homepage}$



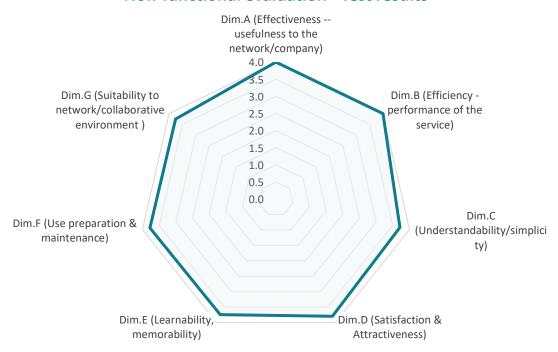


Figure 3.18: Disassemblability module – Visual results of the non-functional assessment for user ILSSA - Homepage

If we consider the non-functional evaluation of the details page, full ranking has been achieved by understandability with high values also for the other dimensions, indicating overall satisfaction for the dashboard.

| Non-functional Dimension | |
|---|---------|
| L | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |

Figure 3.19: Disassemblability module – Tabular results of the non-functional assessment for user ILSSA - Details



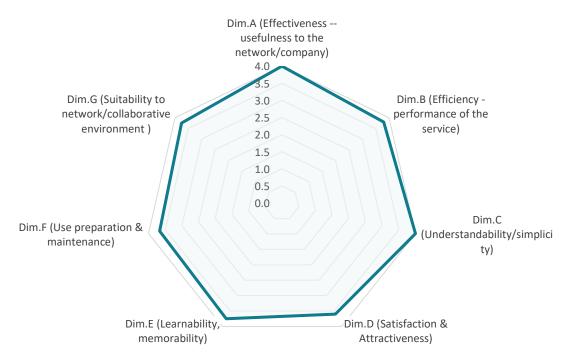


Figure 3.20: Disassemblability module – Visual results of the non-functional assessment for user ILSSA - Details page

3.1.3 Evaluation tester #3 (POLLINI)

3.1.3.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



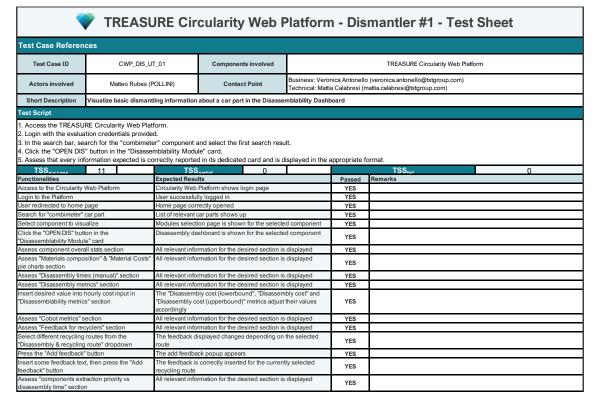


Figure 3.21: Disassemblability module - Functional evaluation for user POLLINI - Homepage



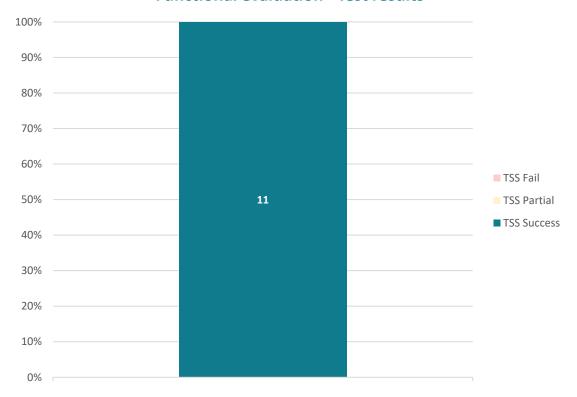


Figure 3.22: Disassemblability module -Visual results of the functional evaluation for user POLLINI - Homepage

| Results Assessment | | | | |
|----------------------|-------------|--|--|--|
| Functional Dimension | | | | |
| | TSS Results | | | |
| TSS Success | 11 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |

Figure 3.23: Disassemblability module -Tabular results of the functional evaluation for user POLLINI - Homepage

Concerning the details page instead, the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



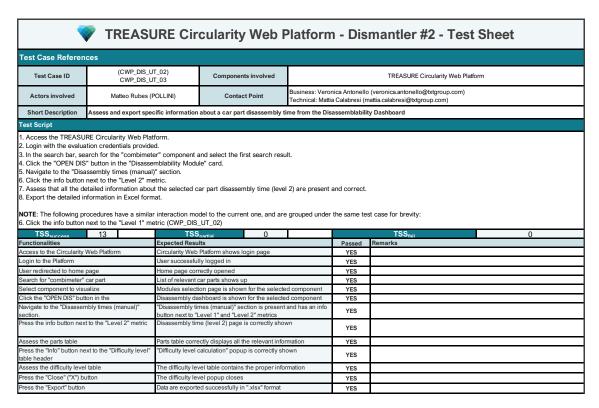


Figure 3.24: Disassemblability module - Functional evaluation for user POLLINI - Details page

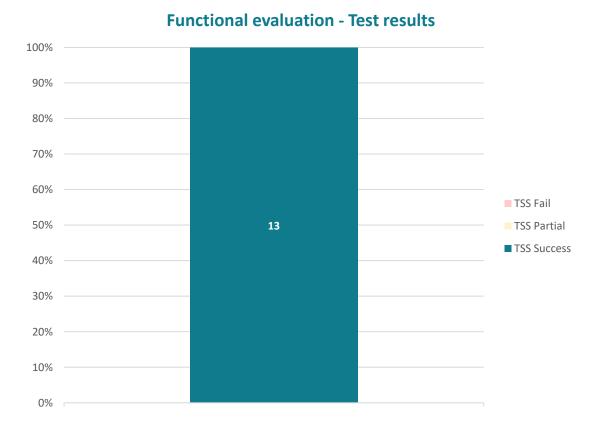


Figure 3.25: Disassemblability module -Visual results of the functional evaluation for user POLLINI - Details page



| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 13 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.26: Disassemblability module -Tabular results of the functional evaluation for user POLLINI - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.3.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, full ranking has been achieved by all dashboards indicating overall satisfaction for the dashboard.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 4.0 | |
| Dim.C (Understandability/simplicity) | 4.0 | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 4.0 | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | |
| | Total | |
| | 4.0 | |

Figure 3.27: Disassemblability module – Tabular results of the non-functional assessment for user POLLINI - Homepage



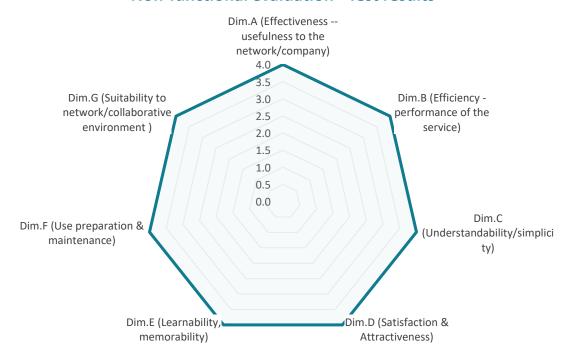


Figure 3.28: Disassemblability module – Visual results of the non-functional assessment for user POLLINI - Homepage

If we consider the non-functional evaluation of the details page, full ranking has been achieved by all dashboards indicating overall satisfaction for the dashboard.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 4.0 | |
| Dim.C (Understandability/simplicity) | 4.0 | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 4.0 | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | |
| | Total | |
| | 4.0 | |

Figure 3.29: Disassemblability module – Tabular results of the non-functional assessment for user POLLINI - Details page



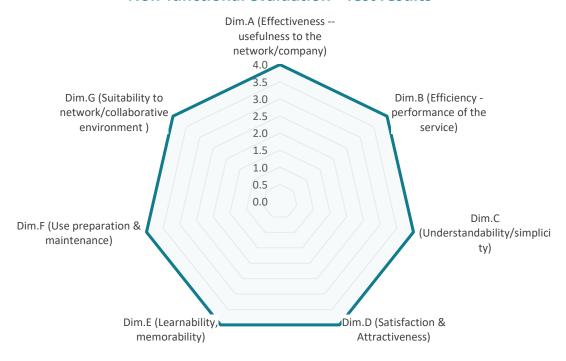


Figure 3.30: Disassemblability module – Visual results of the non-functional assessment for user POLLINI - Details page

3.1.4 Evaluation tester #4 (SEAT)

3.1.4.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet | | | | | | | |
|---|--|---|------------------------------------|--|-----------------------------------|---------------------|---|
| Test Case Referen | ces | | | | | | |
| Test Case ID | CWP_DIS_U | Γ_01 | Components involved | | TREASURE Circularity Web Platform | | |
| Actors involved | Mar Villacampa (S (Product Environme | | Contact Point | Business: Veronica Antonello (veronica antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic dismant | ling information | about a car part in the Disasser | mblability Dashb | oard | | |
| Test Script | | | | | | | |
| Click the "OPEN DIS Assess that every inference or the second s | ation credentials provide arch for the "combimete " button in the "Disasse formation expected is co | d. er" component a mblability Modu orrectly reporte | d in its dedicated card and is di | | ppropriate fo | | |
| TSS | 11 | | nartial 0 | | | TSS _{fail} | 0 |
| Functionalities | | Expected Resu | | | Passed | Remarks | |
| Access to the Circularity \ | Web Platform | | Platform shows login page | | YES | | |
| Login to the Platform User successfully logged in | | | YES | | | | |
| User redirected to home page Home page correctly opened | | | YES | | | | |
| Search for "combimeter" car part List of relevant car parts shows up | | YES | | | | | |
| Select component to visualize Modules selection page is shown for the selected component | | d component | YES | | | | |
| Click the "OPEN DIS" button in the Disassembly dashboard is shown for the selected component "Disassemblability Module" card | | YES | | | | | |
| Assess component overa | all stats section | All relevant info | rmation for the desired section is | displayed | YES | | |
| Assess "Materials compo- pie charts section | sition" & "Material Costs" | All relevant information for the desired section is displayed | | YES | | | |
| Assess "Disassembly time | es (manual)" section | All relevant info | rmation for the desired section is | displayed | YES | | |
| Assess "Disassembly me | trics" section | All relevant info | rmation for the desired section is | displayed | YES | | |
| Insert desired value into hourly cost input in The "Disassembly cost (lowerbound", "Disassembly cost" and "Disassemblability metrics" section Disassembly cost (upperbound)" metrics adjust their values accordingly | | YES | | | | | |
| Assess "Cobot metrics" section All relevant information for the desired section is displayed | | YES | | | | | |
| | s "Feedback for recyclers" section All relevant information for the desired section is displayed | | YES | | | | |
| Select different recycling routes from the The feedback displayed changes depending on the selected | | YES | | | | | |
| | "Disassembly & recycling route" dropdown route | | TES | | | | |
| Press the "Add feedback" | | | | YES | | | |
| Insert some feedback text feedback" button | | The feedback is correctly inserted for the currently selected recycling route | | YES | | | |
| Assess "components extr disassembly time" section | | All relevant information for the desired section is displayed | | YES | | | |

 $\textit{Figure 3.31: Disassemblability module - Functional evaluation for user \textit{SEAT - Homepage}}\\$





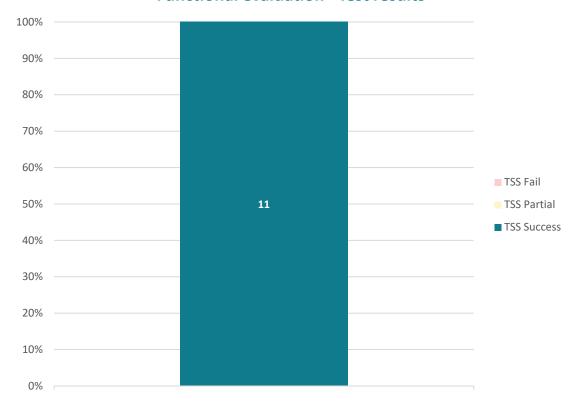


Figure 3.32: Disassemblability module -Visual results of the functional evaluation for user SEAT - Homepage

| Results Assessment | | |
|----------------------|--|--|
| Functional Dimension | | |
| TSS Results | | |
| 11 | | |
| 0 | | |
| 0 | | |
| | | |

Figure 3.33: Disassemblability module -Tabular results of the functional evaluation for user SEAT - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



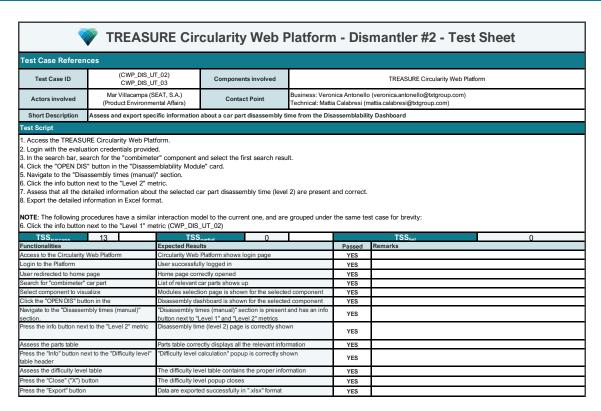


Figure 3.34: Disassemblability module - Functional evaluation for user SEAT - Details page

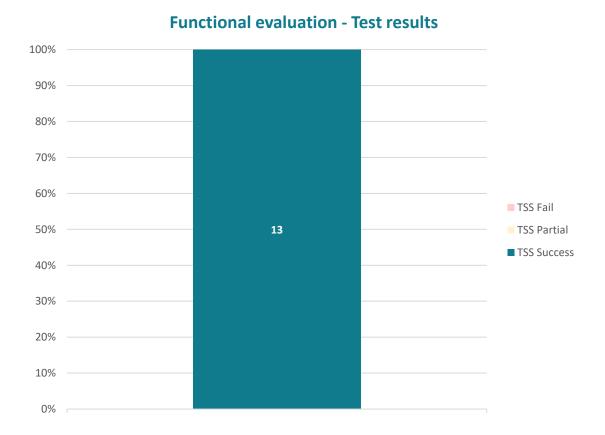


Figure 3.35: Disassemblability module -Visual results of the functional evaluation for user SEAT - Details page



| Results Assessment | | |
|----------------------|-------------|--|
| Functional Dimension | | |
| | TSS Results | |
| TSS Success | 13 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |

Figure 3.36: Disassemblability module -Tabular results of the functional evaluation for user SEAT - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.4.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a reasonable high score has been achieved by many dimensions while more attention is needed for the simplicity dimension.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | |
| Dim.B (Efficiency - performance of the service) | 3.6 | |
| Dim.C (Understandability/simplicity) | 2.7 | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | |
| Dim.E (Learnability, memorability) | 2.8 | |
| Dim.F (Use preparation & maintenance) | 2.9 | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | |
| | Total | |
| | 3.1 | |

Figure 3.37: Disassemblability module – Tabular results of the non-functional assessment for user SEAT - Homepage



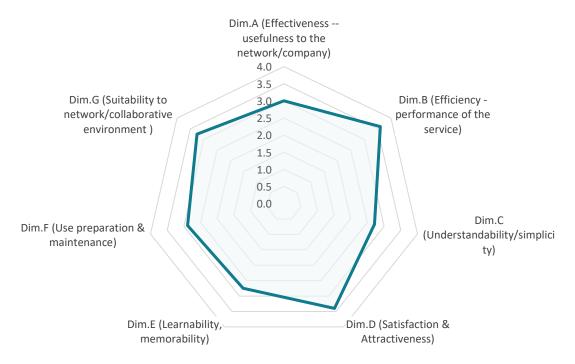


Figure 3.38: Disassemblability module – Visual results of the non-functional assessment for user SEAT - Homepage

If we consider the non-functional evaluation of the details page, a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| | Results |
|---|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 3.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.0 |
| Dim.F (Use preparation & maintenance) | 3.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.2 |

Figure 3.39: Disassemblability module – Tabular results of the non-functional assessment for user SEAT - Details page



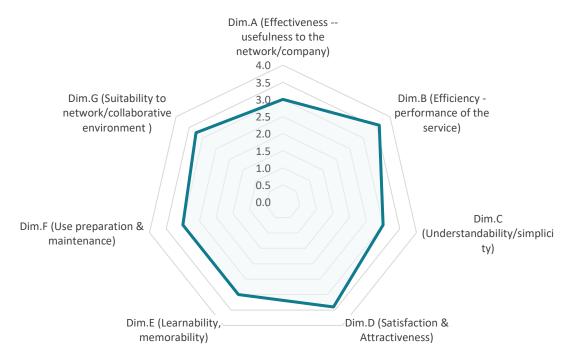


Figure 3.40: Disassemblability module – Visual results of the non-functional assessment for user SEAT - Details page

3.1.5 Evaluation tester #5 (TNO)

3.1.5.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet | | | | | | | |
|--|---|--|---|------------------|---|-----------------------------------|---|
| Test Case Reference | s | | | | | | |
| Test Case ID | CWP_DIS_U | Γ_01 | Components involved | | | TREASURE Circularity Web Platform | n |
| Actors involved | | | | | Veronica Antonello (veronica.antonello@btgroup.com) Mattia Calabresi (mattia.calabresi@btgroup.com) | | |
| Short Description Vi | isualize basic dismant | ling information | about a car part in the Disasser | mblability Dashb | oard | | |
| Test Script | | | | | | | |
| Click the "OPEN DIS" b Assess that every inform | on credentials provide the for the "combimete outton in the "Disasse mation expected is co | d. er" component a mblability Modu errectly reporte | d in its dedicated card and is d | | ppropriate fo | | |
| TSS | 11 | | nartial 0 | L | | TSS _{fail} | 0 |
| Functionalities | 1 PM 16 | Expected Resu | | | Passed | Remarks | |
| Access to the Circularity We | b Platform | | Platform shows login page | | YES | | |
| Login to the Platform User redirected to home page | | User successful | | | YES | | |
| Search for "combimeter" car | 10 /1 | | | YES | | | |
| Select component to visualize | | List of relevant car parts shows up Modules selection page is shown for the selected component | | YES | | | |
| Click the "OPEN DIS" button | | | | | | | |
| "Disassemblability Module" | | bisassembly dashboard is shown for the selected component | | YES | | | |
| Assess component overall s | | All relevant information for the desired section is displayed | | displayed | YES | | |
| Assess "Materials compositi | on" & "Material Costs" | All relevant information for the desired section is displayed | | displayed | YES | | |
| | pie charts section | | | | | | |
| Assess "Disassembly times | , , | , | | YES | | | |
| Assess "Disassembly metric | | | | YES | | | |
| Insert desired value into hou "Disassemblability metrics" s | | The "Disassembly cost (lowerbound", "Disassembly cost" and "Disassembly cost (upperbound)" metrics adjust their values accordingly | | YES | | | |
| Assess "Cobot metrics" sect | tion | All relevant information for the desired section is displayed | | YES | | | |
| Assess "Feedback for recycl | lers" section | All relevant information for the desired section is displayed | | YES | | | |
| Select different recycling rou "Disassembly & recycling ro | | The feedback displayed changes depending on the selected route | | YES | | | |
| Press the "Add feedback" bu | | | | | | | |
| Insert some feedback text, th | | | | YES | | | |
| feedback" button | | recycling route | | | | | |
| Assess "components extract disassembly time" section | tion priority vs | All relevant info | Il relevant information for the desired section is displayed YES | | | | |

Figure 3.41: Disassemblability module - Functional evaluation for user TNO-Homepage



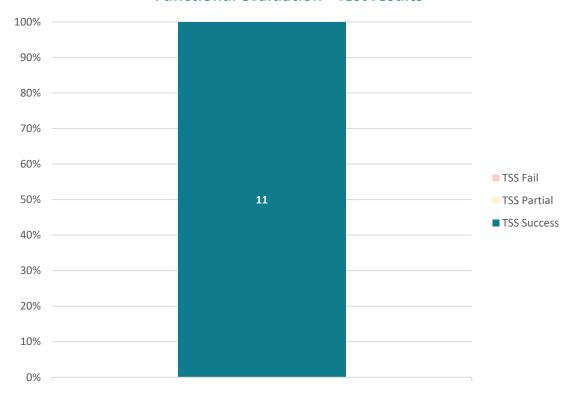


Figure 3.42: Disassemblability module -Visual results of the functional evaluation for user TNO - Homepage

| Results Assessment | | |
|----------------------|-------------|--|
| Functional Dimension | | |
| | TSS Results | |
| TSS Success | 11 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |

Figure 3.43: Disassemblability module -Tabular results of the functional evaluation for user TNO - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



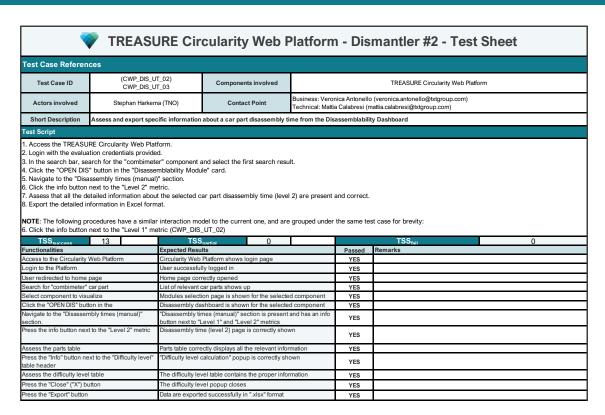


Figure 3.44: Disassemblability module - Functional evaluation for user TNO - Details page

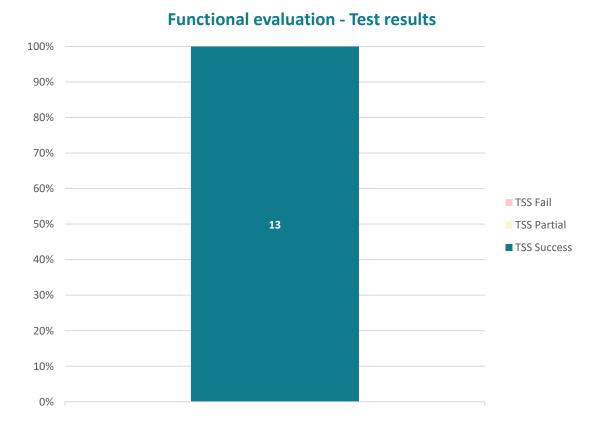


Figure 3.45: Disassemblability module -Visual results of the functional evaluation for user TNO - Details page



| Results Assessment | | |
|----------------------|-------------|--|
| Functional Dimension | | |
| | TSS Results | |
| TSS Success | 13 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |

Figure 3.46: Disassemblability module -Tabular results of the functional evaluation for user TNO - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.5.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | |
| Dim.B (Efficiency - performance of the service) | 3.4 | |
| Dim.C (Understandability/simplicity) | 3.3 | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | |
| Dim.E (Learnability, memorability) | 3.5 | |
| Dim.F (Use preparation & maintenance) | 3.7 | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | |
| | Total | |
| | 3.5 | |

Figure 3.47: Disassemblability module – Tabular results of the non-functional assessment for user TNO - Homepage



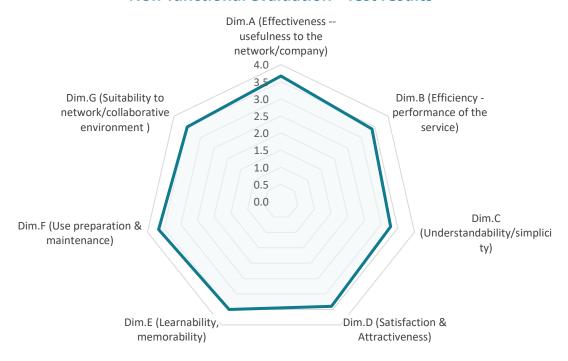


Figure 3.48: Disassemblability module – Visual results of the non-functional assessment for user TNO - Homepage

If we consider the non-functional evaluation of the details page, a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | |
| Dim.B (Efficiency - performance of the service) | 3.2 | |
| Dim.C (Understandability/simplicity) | 3.7 | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | |
| Dim.E (Learnability, memorability) | 3.5 | |
| Dim.F (Use preparation & maintenance) | 3.7 | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | |
| | Total | |
| | 3.5 | |

Figure 3.49: Disassemblability module – Tabular results of the non-functional assessment for user TNO - Details page



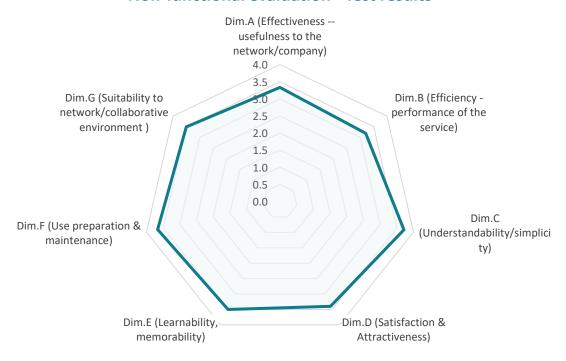


Figure 3.50: Disassemblability module – Visual results of the non-functional assessment for user TNO - Details page

3.1.6 Evaluation tester #6 (UNIVAQ)

3.1.6.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet | | | | | | | | | |
|---|---|---|--|----------|--|--------|---------------------|---|---|
| Test Case References | | | | | | | | | |
| Test Case ID | CWP_DIS_UT_01 | | Components involved | | TREASURE Circularity Web Platform | | | | |
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy | | Contac | et Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Visualize basic dis | mantling information about a car part in the Disassemblability Dash | | | | board | | | |
| Test Script | Test Script | | | | | | | | |
| 1. Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combineter" component and select the first search result. 4. Click the "OPEN IDIS" button in the "Disassemblability Module" card. 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. | | | | | | | | | |
| TSS | 11 | TSS | nartial | 0 | | | TSS _{fail} | | 0 |
| Functionalities | | | | | | Passed | Remarks | | |
| Access to the Circularity Web Platform | | Circularity Web | Circularity Web Platform shows login page | | | | | | |
| Login to the Platform | | User successfu | User successfully logged in | | | | | | |
| User redirected to home page | | Home page cor | Home page correctly opened | | | | | | |
| Search for "combimeter" car part | | List of relevant | List of relevant car parts shows up | | | | | | |
| Select component to visualize | | Modules select | Modules selection page is shown for the selected component | | | | | | |
| Click the "OPEN DIS" button in the "Disassemblability Module" card | | Disassembly da | Disassembly dashboard is shown for the selected component | | | | | | |
| Assess component overall stats section | | All relevant info | All relevant information for the desired section is displayed | | | | | | |
| Assess "Materials composition" & "Material Costs" pie charts section | | sts" All relevant info | All relevant information for the desired section is displayed | | | | | | |
| Assess "Disassembly time | All relevant info | All relevant information for the desired section is displayed | | | | | | | |
| Assess "Disassembly met | | All relevant information for the desired section is displayed | | | | | | | |
| Insert desired value into hourly cost input in "Disassemblability metrics" section | | | The "Disassembly cost (lowerbound", "Disassembly cost" and "Disassembly cost (upperbound)" metrics adjust their values accordingly | | | | | | |
| Assess "Cobot metrics" section | | All relevant info | All relevant information for the desired section is displayed | | | | | | |
| Assess "Feedback for recyclers" section | | All relevant info | All relevant information for the desired section is displayed | | | | | | |
| Select different recycling routes from the "Disassembly & recycling route" dropdown | | The feedback d route | The feedback displayed changes depending on the selected route | | | | | | |
| Press the "Add feedback" button | | | The add feedback popup appears | | | | | | |
| Insert some feedback text feedback" button | recycling route | | | | | | | | |
| Assess "components extr disassembly time" section | All relevant info | All relevant information for the desired section is displayed | | | | | | · | |

Figure 3.51: Disassemblability module - Functional evaluation for user UNIVAQ - Homepage



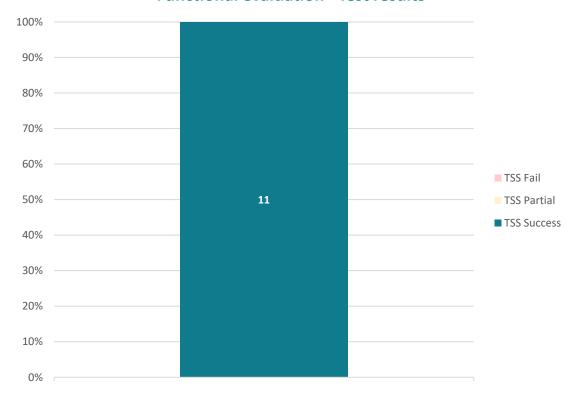


Figure 3.52: Disassemblability module -Visual results of the functional evaluation for user UNIVAQ - Homepage

| Results Assessment | | | | |
|----------------------|-------------|--|--|--|
| Functional Dimension | | | | |
| | TSS Results | | | |
| TSS Success | 11 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |

Figure 3.53: Disassemblability module -Tabular results of the functional evaluation for user UNIVAQ - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



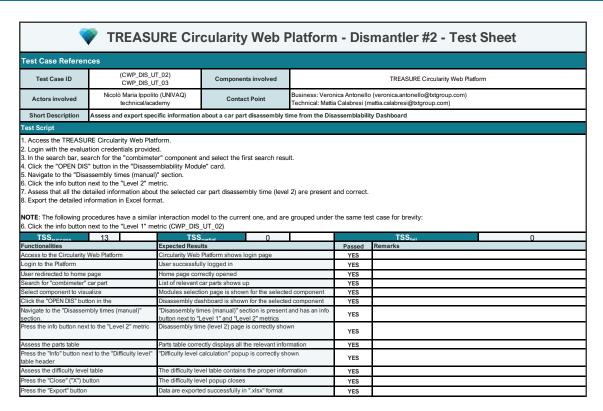


Figure 3.54: Disassemblability module - Functional evaluation for user UNIVAQ - Details page

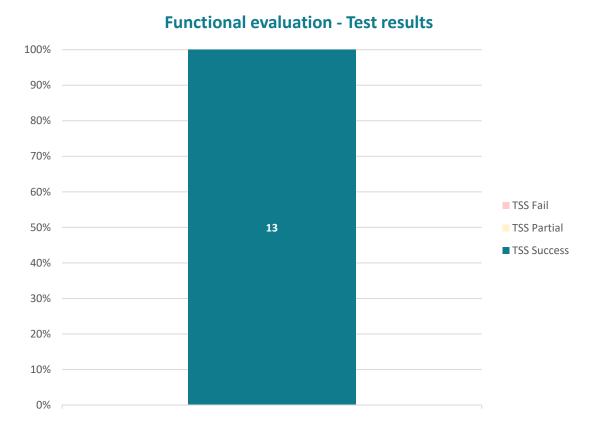


Figure 3.55: Disassemblability module -Visual results of the functional evaluation for user UNIVAQ - Details page



| Results Assessment | | | | |
|----------------------|-------------|--|--|--|
| Functional Dimension | | | | |
| | TSS Results | | | |
| TSS Success | 13 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |

Figure 3.56: Disassemblability module -Tabular results of the functional evaluation for user UNIVAQ - Details page

If we consider both tests performed on the Disassemblability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.6.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by collaboration, performance and understandability, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | |
|---|---------|--|--|
| | Results | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | |
| Dim.C (Understandability/simplicity) | 4.0 | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | |
| Dim.E (Learnability, memorability) | 3.3 | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | |
| | Total | | |
| | 3.8 | | |

Figure 3.57: Disassemblability module — Tabular results of the non-functional assessment for user UNIVAQ - Homepage



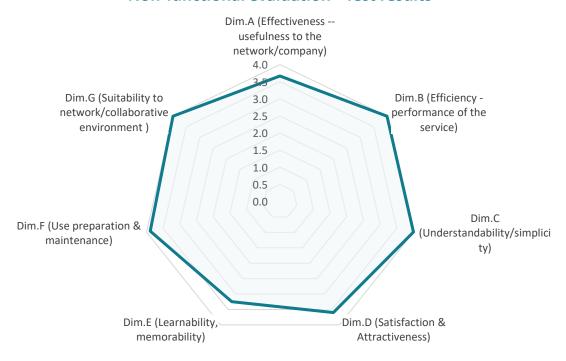


Figure 3.58: Disassemblability module – Visual results of the non-functional assessment for user UNIVAQ - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by collaboration, performance and understandability, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 3.3 | | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.8 | | | |

Figure 3.59: Disassemblability module – Tabular results of the non-functional assessment for user UNIVAQ - Details



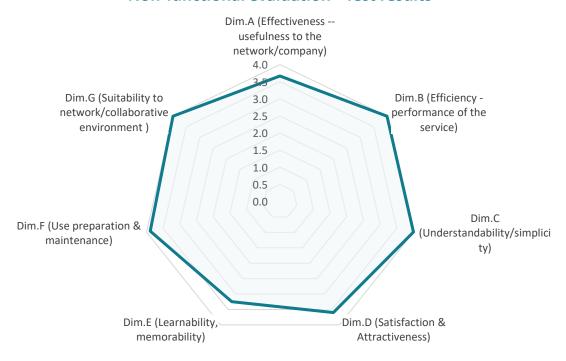


Figure 3.60: Disassemblability module – Visual results of the non-functional assessment for user UNIVAQ - Details page

3.1.7 Evaluation tester #7 (WALTERPACK)

3.1.7.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



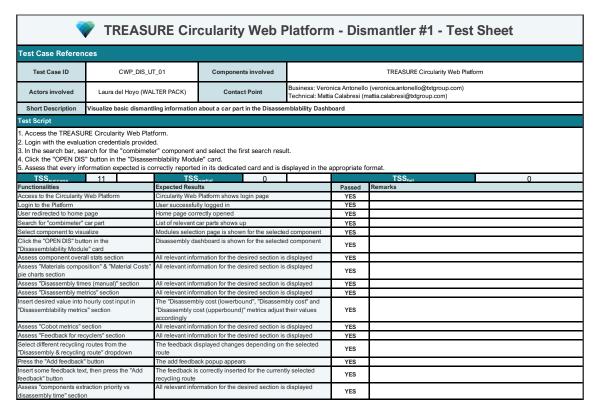


Figure 3.61: Disassemblability module - Functional evaluation for user WALTERPACK - Homepage



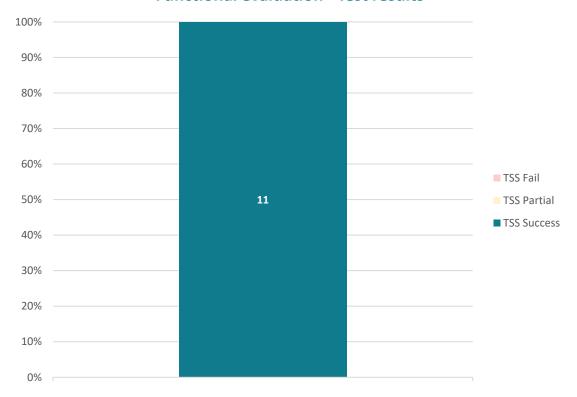


Figure 3.62: Disassemblability module -Visual results of the functional evaluation for user WALTERPACK - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.63: Disassemblability module -Tabular results of the functional evaluation for user WALTERPACK - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet | | | | | | | | | |
|--|---|---|--|-------------------|-------------------|---|-------------|---|--|
| Test Case Referen | ces | | | | | | | | |
| Test Case ID | (CWP_DIS_I CWP_DIS_I | | Componen | nts involved | | TREASURE Circularity Web Platform | | | |
| Actors involved | Laura del Hoyo (W | ALTER PACK) | Contac | ct Point | | nica Antonello (veronica.antonello@txtgroup.com) a Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Assess and export spe | cific information | about a car par | t disassembly t | time from the Dis | assemblabilit | y Dashboard | | |
| Test Script | | | | | | | | | |
| 5. Navigate to the "Disassembly times (manual)" section. 6. Click the info button next to the "Level 2" metric. 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct. 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: | | | | | | | | | |
| 6. Click the info button | 13 | | _U1_U2) | 0 | | | TSSfail | 0 | |
| Functionalities | 13 | Expected Resu | | | 1 | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | Platform shows I | ogin page | | YES | Romano | | |
| Login to the Platform | | User successful | | | | YES | 1 | | |
| User redirected to home | page | Home page con | ectly opened | | | YES | | | |
| Search for "combimeter" | | | ar parts shows u | p | | YES | 1 | | |
| Select component to visu | alize | Modules selecti | on page is show | n for the selecte | ed component | YES | | | |
| Click the "OPEN DIS" butt | on in the | Disassembly da | shboard is show | n for the selecte | ed component | YES | | | |
| Navigate to the "Disassen section. | nbly times (manual)" | "Disassembly times (manual)" section is present and has an info button next to "Level 1" and "Level 2" metrics | | | | YES | | | |
| Press the info button next | t to the "Level 2" metric | Disassembly time (level 2) page is correctly shown | | | YES | | | | |
| Assess the parts table | Parts table correctly displays all the relevant information | | | YES | | | | | |
| Press the "Info" button ne table header | xt to the "Difficulty level" | "Difficulty level of | vel calculation" popup is correctly shown | | | YES | | | |
| Assess the difficulty level | table | The difficulty lev | evel table contains the proper information | | | YES | | | |
| Press the "Close" ("X") bu | itton | The difficulty lev | evel popup closes | | | YES | | | |
| Press the "Export" button | | Data are exporte | xported successfully in ".xlsx" format | | | YES | | | |

Figure 3.64: Disassemblability module - Functional evaluation for user WALTERPACK - Details page





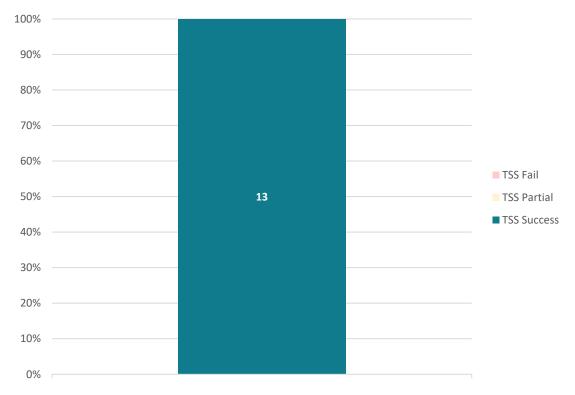


Figure 3.65: Disassemblability module -Visual results of the functional evaluation for user WALTERPACK - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 13 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.66: Disassemblability module -Tabular results of the functional evaluation for user WALTERPACK - Details page

If we consider both tests performed on the Disassemblability, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.1.7.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The testing tasks concerned the log in phase, and the assessment of disassembly routes and disassemblability levels according to the selected car part.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.



If we consider the non-functional evaluation of the homepage, a full score has been achieved by learnability, performance and understandability, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.8 | | | |

Figure 3.67: Disassemblability module – Tabular results of the non-functional assessment for user WALTERPACK -Homepage

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

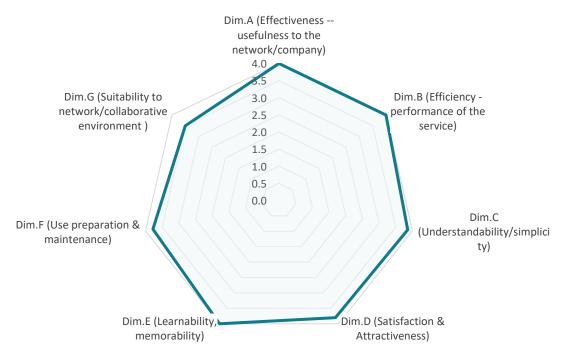


Figure 3.68: Disassemblability module – Visual results of the non-functional assessment for user WALTERPACK - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by effectiveness, satisfaction, performance and learnability, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.9 | | | |

Figure 3.69: Disassemblability module – Tabular results of the non-functional assessment for user WALTERPACK –

Details page

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

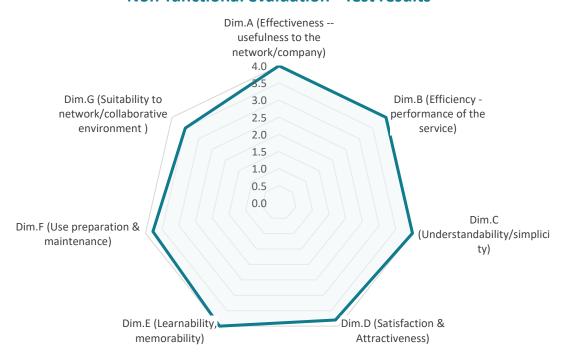


Figure 3.70: Disassemblability module – Visual results of the non-functional assessment for user WALTERPACK - Details page

3.1.8 Overall results

3.1.8.1 Functional evaluation

The functional evaluation for the Disassemblability module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 191, the total number of TSS partial is 1 and the total number of TSS fail is 0.



| Disassemblability Module - Overall Results Assessment | |
|---|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 191 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.71 - Disassemblability Module - Functional evaluation overall results assessment

The only attention point for this module has been raised by EUROLCDS concerning the home page of the Disassemblability dashboard and it is relative to the "Material Composition" and "Material Cost" pie charts. In these charts whenever a category is represented with a small value, the corresponding portion of the chart shows the category name with a text size that is too small, thus impacting readability.

3.1.8.2 Non-functional evaluation

The non-functional evaluation for the Disassemblability module has an overall satisfactory outcome.

| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.5 | | | |
| Dim.B (Efficiency - performance of the service) | 3.7 | | | |
| Dim.C (Understandability/simplicity) | 3.6 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 3.6 | | | |
| Dim.F (Use preparation & maintenance) | 3.7 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.6 | | | |

Figure 3.72: Disassemblability Module – Non-functional evaluation overall results assessment

3.2 Recyclability Module

The Recyclability module is dedicated to providing information concerning the most suitable recycling routes based on the LCA performed by the Sustainability Tool through the representation of recovery rate for each car part material. Like the Disassemblability module, the Recyclability module is composed of the homepage and a detail page that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

The regular user with visualization only mode for the Recyclability module: the user
can only see the platform content related to the standard recyclability dashboards, as
well as the necessary in-between pages necessary for him/her to navigate the platform
in a coherent way. No access to the Circular Advisory dashboards is foreseen for this
type of user.



3.2.1 Evaluation tester #1 (EUROLCDS)

3.2.1.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with only a remark on the reading key of the details table related to the individual recycling rates.

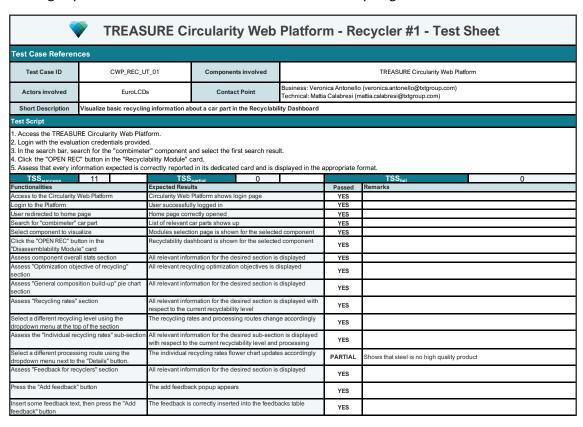


Figure 3.73: Recyclability module - Functional evaluation for user EUROLCDS - Homepage

The evaluation shows no TSS fail, with only one TSS partial related to the individual recycling rates section as described above, granting a satisfactory score overall, as visible in the figure below.





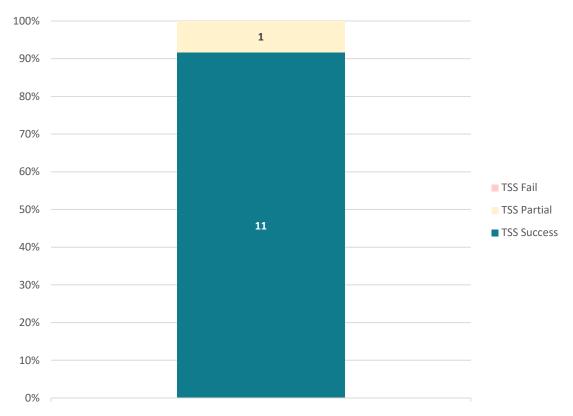


Figure 3.74: Recyclability module -Visual results of the functional evaluation for user EUROLCDS - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 1 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.75: Recyclability module -Tabular results of the functional evaluation for user EUROLCDS - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Recycler #2 - Test Sheet | | | | | | | | | |
|--|--|--|---|---------|--|----------------|---------------------------------|------|--|
| Test Case Reference | es | | | | | | | | |
| Test Case ID | CWP_REC_U | T_02 | Components involv | red . | | | TREASURE Circularity Web Platfo | form | |
| Actors involved | EuroLCD | is | Contact Point | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Assess specific informa | ation about indiv | idual recycling rates for | a car p | art in the Recyc | lability Dashl | board | | |
| Test Script | | | | | | | | | |
| 1. Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN REC" button in the "Recyclability Module" card. 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section. 6. Click the "Details" button net to the recycling routes dropdown menu. 7. Assess that all the recycling rates for the selected recycling level and recycling route are present and correct. | | | | | | | | | |
| TSS _{success} | 11 | TSS _{ported} 0 TSS _{fell} 0 | | | | | | 0 | |
| Functionalities | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity W | leb Platform | | Platform shows login pag | е | | YES | | | |
| Login to the Platform | | User successful | , 00 | | | YES | | | |
| User redirected to home pa | • | Home page con | | | | YES | | | |
| Search for "combimeter" ca | | | car parts shows up | | | YES | | | |
| Select component to visua | | | on page is shown for the | | | YES | | | |
| | IN REC" button in the "Recyclability Recyclability dashboard is shown for the selected component "Individual recycling rates" sub- "Recycling rates" section is present and has a "Details" button next to the recycling routes dropdown menu | | | | YES | | | | |
| Press the "Details" button noutes dropdown menu | next to the recycling | "Individual recycling rates" page is correctly shown | | | YES | | | | |
| Select a recyclability level to dropdown menu | from the top-right | | ycling rates table correctly displays all the relevant rmation accounting for the user selection | | | YES | | | |
| Select a recycling route fro dropdown menu on the rig | | | rates table correctly displays all the relevant accounting for the user selection | | | YES | | | |
| Assess the "Rates by recyc | cling route" table | Recycling rates table correctly displays all the relevant information for the selected recyclability level and recycling route | | | YES | | | | |

Figure 3.76: Recyclability module - Functional evaluation for user EUROLCDS - Details page

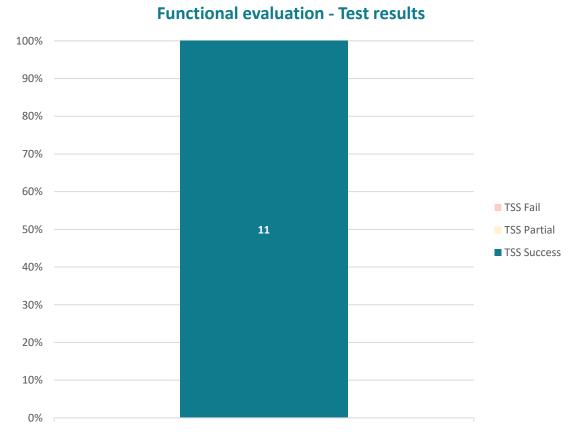


Figure 3.77: Recyclability module -Visual results of the functional evaluation for user EUROLCDS - Details page



| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.78: Recyclability module -Tabular results of the functional evaluation for user EUROLCDS - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.1.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by collaboration and maintenance, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.6 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.7 | | | |

Figure 3.79: Recyclability module – Tabular results of the non-functional assessment for user EUROLCDS - Homepage



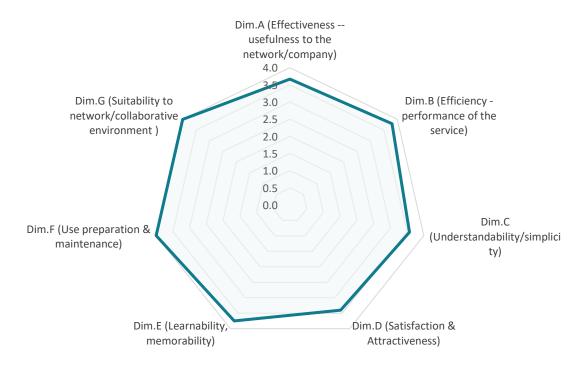


Figure 3.80: Recyclability module – Visual results of the non-functional assessment for user EUROLCDS - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by collaboration and maintenance, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | | |
|--|---------|--|--|--|--|--|
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | | |
| | Total | | | | | |
| | 3.8 | | | | | |

Figure 3.81: Recyclability module – Tabular results of the non-functional assessment for user EUROLCDS - Details page



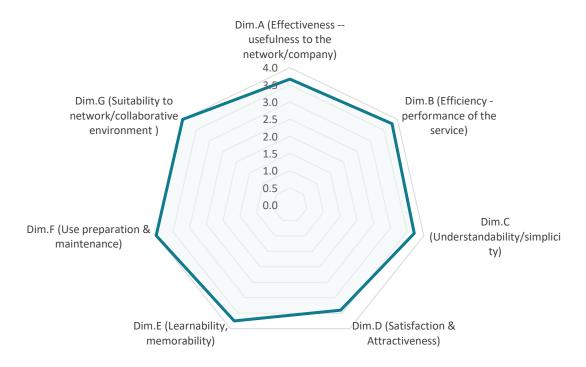


Figure 3.82: Recyclability module – Visual results of the non-functional assessment for user EUROLCDS - Details page

3.2.2 Evaluation tester #2 (ILSSA)

3.2.2.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



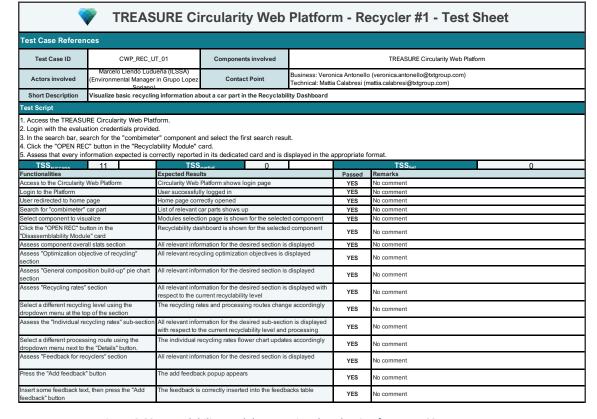


Figure 3.83: Recyclability module - Functional evaluation for user ILSSA - Homepage





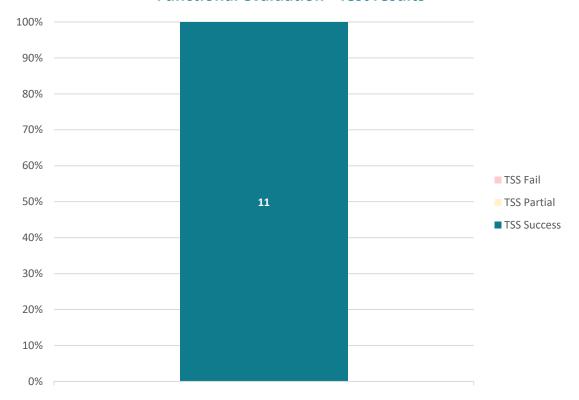


Figure 3.84: Recyclability module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.85: Recyclability module -Tabular results of the functional evaluation for user ILSSA - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



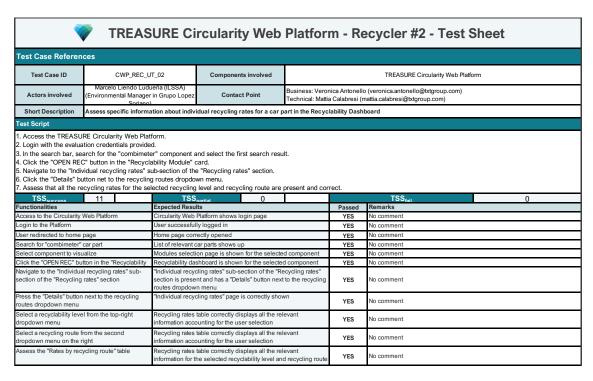


Figure 3.86: Recyclability module - Functional evaluation for user ILSSA - Details page

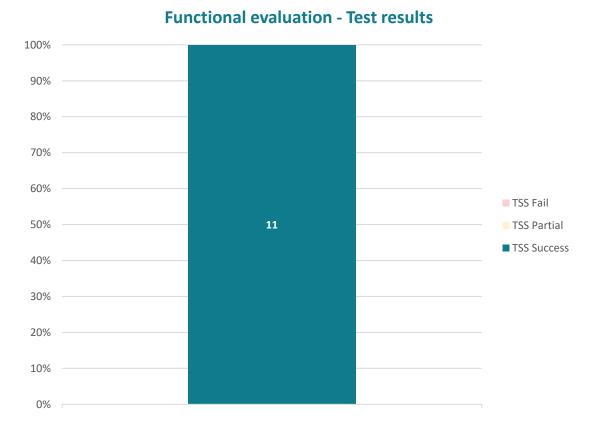


Figure 3.87: Recyclability module -Visual results of the functional evaluation for user ILSSA - Details page



| desults Assessment | | | | | |
|----------------------|----|--|--|--|--|
| Functional Dimension | | | | | |
| TSS Results | | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.88: Recyclability module Tabular results of the functional evaluation for user ILSSA - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.2.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by effectiveness, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | | |
|---|---------|--|--|--|--|--|
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | | |
| | Total | | | | | |
| | 3.7 | | | | | |

Figure 3.89: Recyclability module – Tabular results of the non-functional assessment for user ILSSA - Homepage



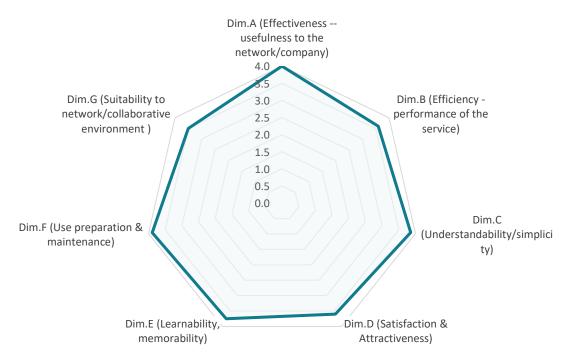


Figure 3.90: Recyclability module – Visual results of the non-functional assessment for user ILSSA - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by effectiveness, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | | | |
|---|---------|--|--|--|--|--|--|
| | Results | | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | | | |
| | Total | | | | | | |
| | 3.8 | | | | | | |

Figure 3.91: Recyclability module – Tabular results of the non-functional assessment for user ILSSA - Details page



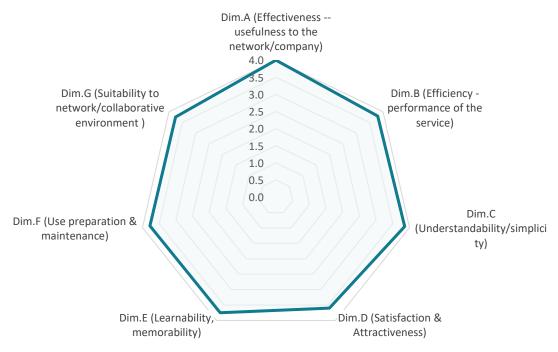


Figure 3.92: Recyclability module – Visual results of the non-functional assessment for user ILSSA - Details page

3.2.3 Evaluation tester #3 (POLLINI)

3.2.3.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Recycler #1 - Test Sheet | | | | | | | | | | |
|---|---|--|--|------------------|------------------|--|-----------------------------------|---------------------|--|---|
| Test Case Referen | ices | | | | | | | | | |
| Test Case ID | | CWP_REC_U | T_01 | Compone | nts involved | | TREASURE Circularity Web Platform | | | |
| Actors involved | Matteo Rubes (POLLINI) | | | Conta | ct Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Visualize | basic recyclin | g information at | out a car part | n the Recyclabi | lity Dashboard | | | | |
| Test Script | | | | | | | | | | |
| Access the TREASU Login with the evalua In the search bar, se Click the "OPEN REC Assess that every interest. | ation crede arch for th C" button i | entials provide ne "combimete n the "Recycla | d. er" component a ability Module" o | card. | | | appropriate fo | ormat. | | |
| TSS | 11 | | TSS | | 0 | | | TSS _{fail} | | 0 |
| Functionalities | | | Expected Resu | | | | Passed YES | Remarks | | |
| Access to the Circularity | Web Platfor | m | Circularity Web Platform shows login page | | | | | | | |
| Login to the Platform | | | User successful | | | | YES | | | |
| User redirected to home | | | Home page con | | | | YES | | | |
| Search for "combimeter" | | | List of relevant of | - | | | YES | | | |
| Select component to visu | | | Modules selection page is shown for the selected component | | | | YES | | | |
| Click the "OPEN REC" bu "Disassemblability Modul | | | Recyclability dashboard is shown for the selected component | | | | YES | | | |
| Assess component over | | | All relevant information for the desired section is displayed | | | | YES | | | |
| Assess "Optimization obj section | jective of re | cycling" | All relevant recycling optimization objectives is displayed | | | | YES | | | |
| Assess "General compos section | sition build- | up" pie chart | All relevant information for the desired section is displayed | | | | YES | | | |
| Assess "Recycling rates" | section 'section | | All relevant information for the desired section is displayed with respect to the current recyclability level | | | YES | | | | |
| Select a different recycling level using the dropdown menu at the top of the section | | | The recycling ra | ites and process | ing routes chang | ge accordingly | YES | | | |
| Assess the "Individual recycling rates" sub-section | | | All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing | | | | YES | | | |
| Select a different processing route using the dropdown menu next to the "Details" button. | | | The individual recycling rates flower chart updates accordingly | | | YES | | | | |
| | ssess "Feedback for recyclers" section All relevant information for the desired section is displayed | | | | YES | | | | | |
| Press the "Add feedback | Press the "Add feedback" button | | | | YES | | | | | |
| Insert some feedback text, then press the "Add feedback" button The feedback is correctly inserted into the feedbacks table | | | | | YES | | | | | |

Figure 3.93: Recyclability module - Functional evaluation for user POLLINI - Homepage



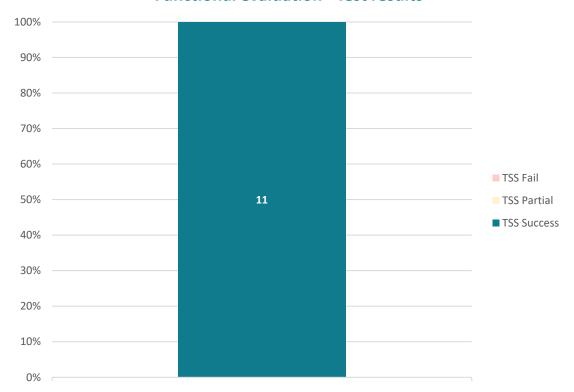


Figure 3.94: Recyclability module -Visual results of the functional evaluation for user POLLINI - Homepage

| Results Assessment | | | | | | |
|----------------------|----|--|--|--|--|--|
| Functional Dimension | | | | | | |
| TSS Results | | | | | | |
| TSS Success | 11 | | | | | |
| TSS Partial | 0 | | | | | |
| TSS Fail | 0 | | | | | |

Figure 3.95: Recyclability module -Tabular results of the functional evaluation for user POLLINI - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



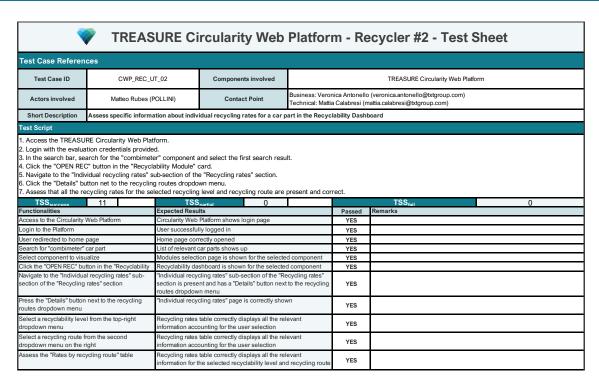


Figure 3.96: Recyclability module - Functional evaluation for user POLLINI - Details page

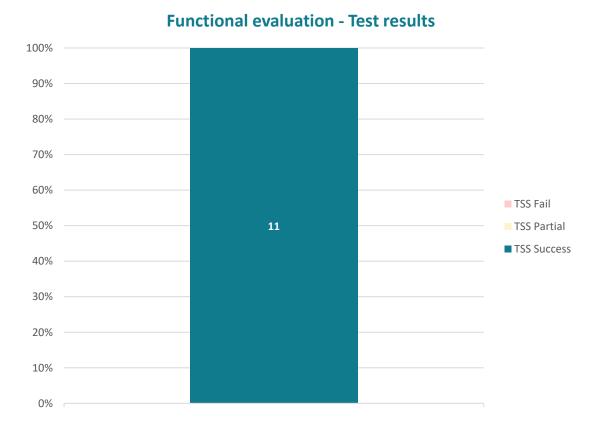


Figure 3.97: Recyclability module -Visual results of the functional evaluation for user POLLINI - Details page



| Results Assessment | | | | | | |
|----------------------|-------------|--|--|--|--|--|
| Functional Dimension | | | | | | |
| | TSS Results | | | | | |
| TSS Success | 11 | | | | | |
| TSS Partial | 0 | | | | | |
| TSS Fail | 0 | | | | | |

Figure 3.98: Recyclability module -Tabular results of the functional evaluation for user POLLINI - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.3.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | |
| | Total | | | | |
| | 4.0 | | | | |

 $\textit{Figure 3.99: Recyclability module-Tabular results of the non-functional assessment for user \textit{POLLINI-Homepage}}\\$



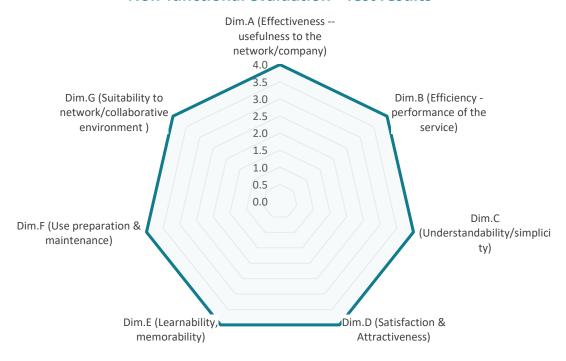


Figure 3.100: Recyclability module – Visual results of the non-functional assessment for user POLLINI - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | | |
|---|---------|--|--|--|--|--|
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | | |
| | Total | | | | | |
| | 4.0 | | | | | |

Figure~3.101: Recyclability~module-Tabular~results~of~the~non-functional~assessment~for~user~POLLINI~-~Details~page~assessment~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~user~polling~asses~for~polling~asses~for~user~poll



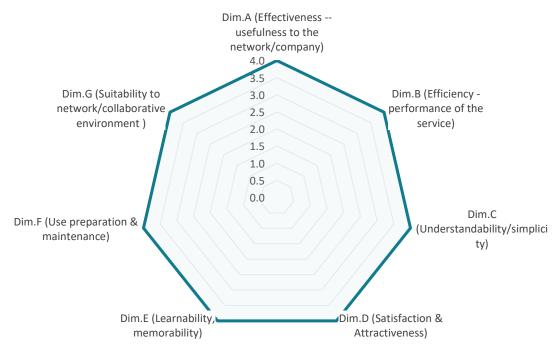


Figure 3.102: Recyclability module – Visual results of the non-functional assessment for user POLLINI - Details page

3.2.4 Evaluation tester #4 (SEAT)

3.2.4.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Recycler #1 - Test Sheet | | | | | | | | | | |
|--|--|------------------------------|--|------------------|-------------------|--|----------------|---------------------------------|---|--|
| Test Case Referen | ices | | | | | | | | | |
| Test Case ID | CWP_REC_UT_01 | | | Compone | nts involved | | | TREASURE Circularity Web Platfo | m | |
| Actors involved | Actors involved Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | | | Conta | ect Point | Business: Veronica Antonello (veronica.antonello@btgroup.com) Technical: Mattia Calabresi (mattia.calabresi@btgroup.com) | | | | |
| Short Description | Visualize basic re | ecyclin | g information al | out a car part | in the Recyclabi | lity Dashboard | | | | |
| Test Script | | | | | | | | | | |
| Access the TREASU Login with the evalua In the search bar, se Click the "OPEN REI Assess that every in | ation credentials p earch for the "com C" button in the "F | rovided bimete Recycla | d. r" component a ability Module" (| card. | | | appropriate fo | ormat. | | |
| TSSeurcase | 11 | | TSS | | 0 | | | TSS _{fail} | 0 | |
| Functionalities | | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | Circularity Web | | login page | | YES | | | |
| Login to the Platform | | | User successful | | | | YES | | | |
| User redirected to home | | | Home page con | | | | YES | | | |
| Search for "combimeter" | | | List of relevant of | _ | | | YES YES | | | |
| Select component to visi | | | Modules selection page is shown for the selected component | | | | | | | |
| Click the "OPEN REC" bu "Disassemblability Modu | | | Recyclability dashboard is shown for the selected component | | | | YES | | | |
| Assess component over | | | All relevant information for the desired section is displayed | | | | YES | | | |
| Assess "Optimization ob section | jective of recycling" | | All relevant recycling optimization objectives is displayed | | | | YES | | | |
| Assess "General compos section | sition build-up" pie | chart | All relevant information for the desired section is displayed | | | | YES | | | |
| Assess "Recycling rates" | 'section | | All relevant information for the desired section is displayed with respect to the current recyclability level | | | | YES | | | |
| Select a different recycling level using the dropdown menu at the top of the section | | | The recycling ra | ites and process | sing routes chang | ge accordingly | YES | | | |
| Assess the "Individual recycling rates" sub-section | | | All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing | | | | YES | | | |
| Select a different processing route using the dropdown menu next to the "Details" button. | | | The individual recycling rates flower chart updates accordingly | | | | YES | | | |
| Assess "Feedback for re- | All relevant information for the desired section is displayed | | | | YES | | | | | |
| Press the "Add feedback | Press the "Add feedback" button | | | | YES | | | | | |
| Insert some feedback text, then press the "Add feedback" button The feedback is correctly inserted into the feedbacks table | | | | | YES | | | | | |

Figure 3.103: Recyclability module - Functional evaluation for user SEAT - Homepage





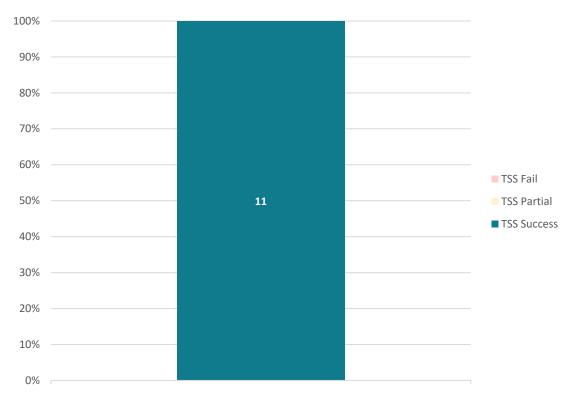


Figure 3.104: Recyclability module -Visual results of the functional evaluation for user SEAT - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.105: Recyclability module -Tabular results of the functional evaluation for user SEAT - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



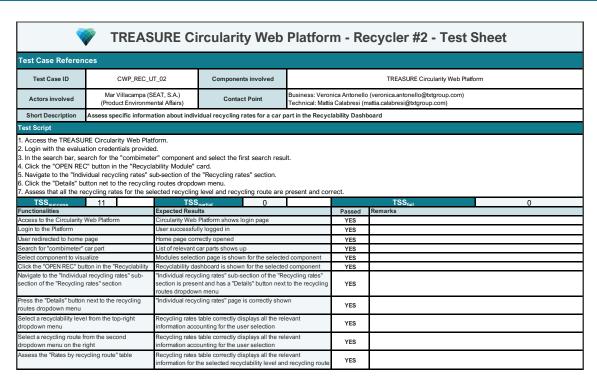


Figure 3.106: Recyclability module - Functional evaluation for user SEAT - Details page

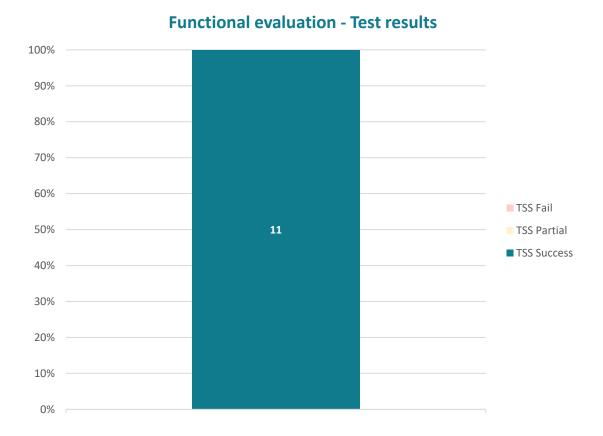


Figure 3.107: Recyclability module -Visual results of the functional evaluation for user SEAT - Details page



| Results Assessment | | | | |
|----------------------|-------------|--|--|--|
| Functional Dimension | | | | |
| | TSS Results | | | |
| TSS Success | 11 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |

Figure 3.108: Recyclability module -Tabular results of the functional evaluation for user SEAT - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.4.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard, while attention is needed on simplicity.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 2.4 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 2.8 | | | |
| Dim.F (Use preparation & maintenance) | 2.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.0 | | | |

Figure 3.109: Recyclability module – Tabular results of the non-functional assessment for user SEAT - Homepage



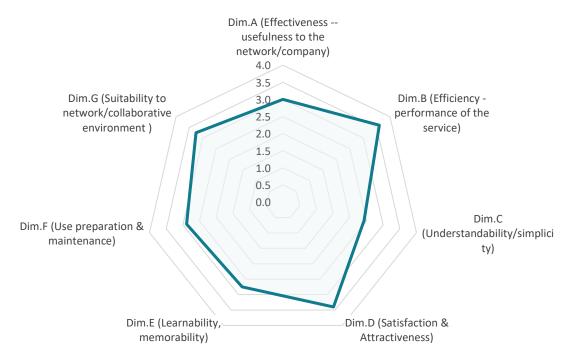


Figure 3.110: Recyclability module – Visual results of the non-functional assessment for user SEAT - Homepage

If we consider the non-functional evaluation of the details page a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard, while attention is needed on simplicity.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 2.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 2.8 | | | |
| Dim.F (Use preparation & maintenance) | 2.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.1 | | | |

Figure 3.111: Recyclability module – Tabular results of the non-functional assessment for user SEAT - Details page



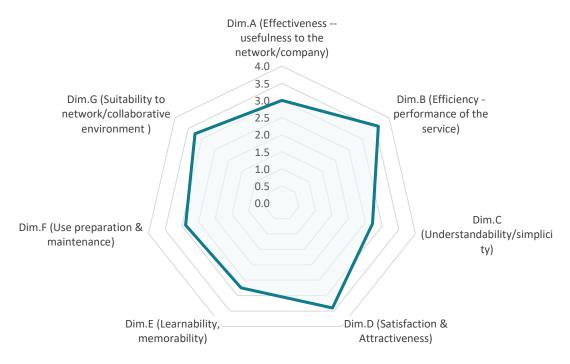


Figure 3.112: Recyclability module – Visual results of the non-functional assessment for user SEAT - Details page

3.2.5 Evaluation tester #5 (TNO)

3.2.5.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| • | TREAS | URE Ci | rculari | ty Web | Platfor | m - Re | ecycler #1 - Test S | heet | |
|---|---|--|---------|---------------|-------------|--|-----------------------------------|------|--|
| Test Case Referen | ıces | | | | | | | | |
| Test Case ID | CWP_REC_UT_01 | | Compone | ents involved | | | TREASURE Circularity Web Platform | | |
| Actors involved | Stephan Harkema (TNO) | | Conta | act Point | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic recyclin | ize basic recycling information about a car part in the Recyclability Dashboard | | | | | | | |
| Test Script | | | | | | | | | |
| Login with the evalu In the search bar, se Click the "OPEN RE | JRE Circularity Web Plati ation credentials provide earch for the "combimete C" button in the "Recycla formation expected is co | d. er" component a ability Module" o | card. | | | appropriate fo | ormat. | | |
| TSSeurrage | 11 | TSS | | 0 | | | TSS _{fail} | 0 | |
| Functionalities | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | Circularity Web Platform shows login page | | | | YES | | | |
| Login to the Platform | | User successfully logged in | | | YES | | | | |
| User redirected to home page | | Home page correctly opened | | | YES | | | | |
| Search for "combimeter" car part | | List of relevant car parts shows up | | | YES | | | | |
| Select component to visualize | | Modules selection page is shown for the selected component | | | YES | | | | |
| Click the "OPEN REC" button in the "Disassemblability Module" card | | Recyclability dashboard is shown for the selected component | | | YES | | | | |
| Assess component over | rall stats section | All relevant information for the desired section is displayed | | | YES | | | | |
| Assess "Optimization objective of recycling" section | | All relevant recycling optimization objectives is displayed | | | YES | | | | |
| Assess "General composition build-up" pie chart section | | All relevant information for the desired section is displayed | | | YES | | | | |
| Assess "Recycling rates" section | | All relevant information for the desired section is displayed with respect to the current recyclability level | | | YES | | | | |
| Select a different recycling level using the | | The recycling rates and processing routes change accordingly | | | YES | | | | |
| dropdown menu at the top of the section | | | | | TES | | | | |
| | | All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing | | YES | | | | | |
| Select a different proces dropdown menu next to | The individual recycling rates flower chart updates accordingly | | | YES | | | | | |
| | | All relevant information for the desired section is displayed | | | YES | | | | |
| Press the "Add feedback | Press the "Add feedback" button | | | | YES | | | | |
| Insert some feedback te feedback" button | Insert some feedback text, then press the "Add | | | | backs table | YES | | | |

Figure 3.113: Recyclability module - Functional evaluation for user TNO - Homepage



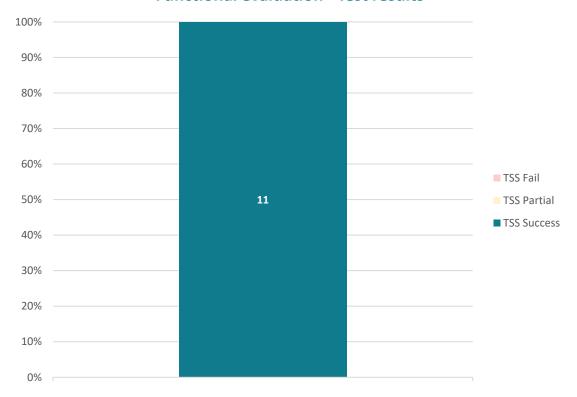


Figure 3.114: Recyclability module -Visual results of the functional evaluation for user TNO - Homepage

| Results Assessment | | | | |
|----------------------|----|--|--|--|
| Functional Dimension | | | | |
| TSS Results | | | | |
| TSS Success | 11 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |

Figure 3.115: Recyclability module -Tabular results of the functional evaluation for user TNO - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



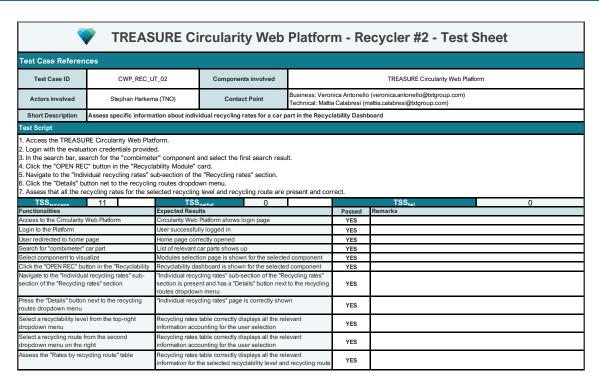


Figure 3.116: Recyclability module - Functional evaluation for user TNO - Details page

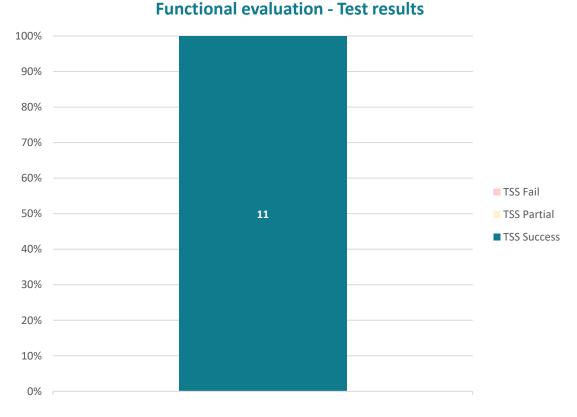


Figure 3.117: Recyclability module -Visual results of the functional evaluation for user TNO - Details page



| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.118: Recyclability module -Tabular results of the functional evaluation for user TNO - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.5.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.2 | | | |
| Dim.C (Understandability/simplicity) | 3.4 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.2 | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | |
| Dim.F (Use preparation & maintenance) | 3.6 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.3 | | | |

 $\textit{Figure 3.119: Recyclability module-Tabular results of the non-functional assessment for user {\tt TNO-Homepage} \\$



Non-functional evaluation - Test results

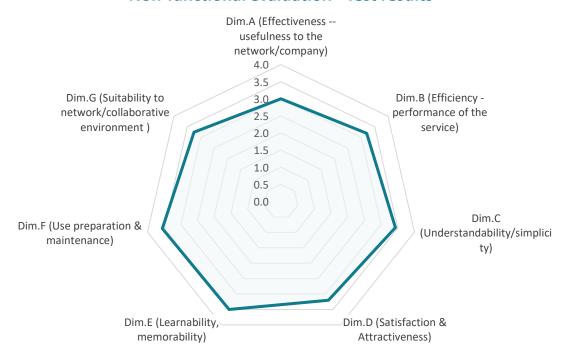


Figure 3.120: Recyclability module – Visual results of the non-functional assessment for user TNO - Homepage

If we consider the non-functional evaluation of the details page a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | |
| Dim.C (Understandability/simplicity) | 3.6 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 3.4 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.5 | | | |

Figure 3.121: Recyclability module – Tabular results of the non-functional assessment for user TNO - Details page



Non-functional evaluation - Test results

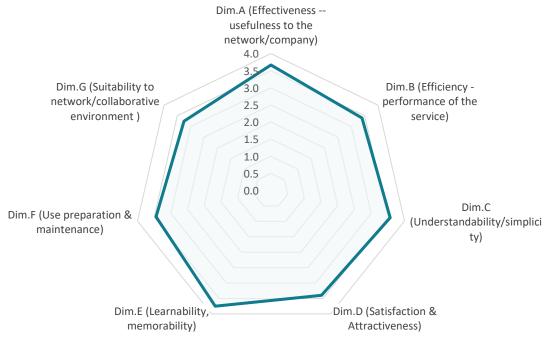


Figure 3.122: Recyclability module - Visual results of the non-functional assessment for user TNO - Details page

3.2.6 Evaluation tester #6 (UNIVAQ)

3.2.6.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully with only a few remarks. First the need to clarify the description for the "level-2" total label, then to enable comment deletion from the dashboard and finally to better clarify a placeholder message when no recycling routes are predent.



| TREASURE Circularity Web Platform - Recycler #1 - Test Sheet | | | | | | | | | | |
|--|--|---|--|---------------|-----------------------------|--|---|---------------|--|--|
| Test Case Referen | ces | | | | | | | | | |
| Test Case ID | CWP_REC_U | T_01 | Components | involved | | | TREASURE Circularity Web Platform | | | |
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy Contact Poin | | | Point | | Business: Veronica Antonello (veronica.antonello@bxtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@bxtgroup.com) | | | | |
| Short Description | Visualize basic recycling information about a car part in the Recyclability Dashboard | | | | | | | | | |
| Test Script | | | | | | | | | | |
| Login with the evalua In the search bar, sea Click the "OPEN REC Assess that every inf | arch for the "combimete " button in the "Recycla | d. er" component a ability Module" o prrectly reported | card. d in its dedicated | | | appropriate f | | | | |
| TSS | 11 | | nartial | 0 | | | TSS _{fail} 0 | | | |
| Functionalities | | Expected Resu | | | | Passed | Remarks | | | |
| Access to the Circularity \ | Web Platform | | Platform shows log | in page | | YES | | | | |
| ., | Login to the Platform User successfully logged in | | | | YES | | | | | |
| User redirected to home p | page | Home page corr | , , | | | YES | | | | |
| Search for "combimeter" | car part | List of relevant of | ar parts shows up | | | YES | | | | |
| Select component to visu | alize | Modules selecti | on page is shown | for the selec | cted component | YES | | | | |
| Click the "OPEN REC" but "Disassemblability Module | | Recyclability das | shboard is shown f | or the selec | ted component | YES | | | | |
| Assess component overa | Il stats section | All relevant info | mation for the des | ired section | is displayed | YES | | | | |
| Assess "Optimization obje section | ective of recycling" | All relevant recy | cling optimization | objectives is | s displayed | YES | | | | |
| Assess "General compos section | | All relevant info | mation for the des | ired section | is displayed | YES | | | | |
| | | | nt information for the desired section is displayed with the current recyclability level | | | YES | Why does 'infotainment unit' at I | evel 2-total? | | |
| Select a different recyclin dropdown menu at the to | p of the section | , , | ites and processing | | | YES | | | | |
| Assess the "Individual red | cycling rates" sub-section | ction All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing | | | | YES | | | | |
| Select a different process dropdown menu next to t | he "Details" button. | The individual recycling rates flower chart updates accordingly | | | PARTIAL | For the steel processing route a | at level 1 no recycling rates are shown | | | |
| Assess "Feedback for rec | | All relevant information for the desired section is displayed | | YES | | | | | | |
| Press the "Add feedback" | button | The add feedback popup appears | | | YES | | | | | |
| Insert some feedback tex feedback" button | ert some feedback text, then press the "Add The feedback is correctly inserted into the feedbacks table edback" button | | | YES | The comment can't be delete | | | | | |

Figure 3.123: Recyclability module - Functional evaluation for user UNIVAQ - Homepage





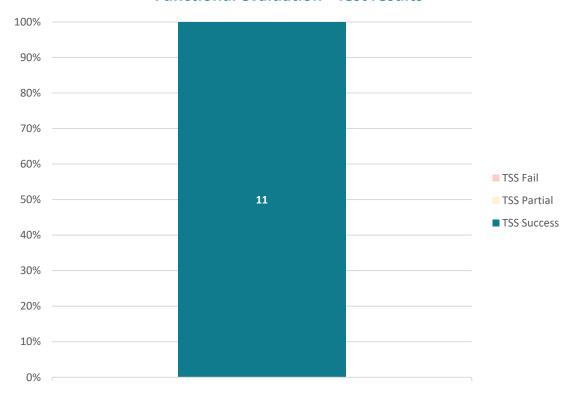


Figure 3.124: Recyclability module -Visual results of the functional evaluation for user UNIVAQ - Homepage

| Results Assessment | | | | | |
|----------------------|--|--|--|--|--|
| Functional Dimension | | | | | |
| TSS Results | | | | | |
| 11 | | | | | |
| 0 | | | | | |
| 0 | | | | | |
| | | | | | |

Figure 3.125: Recyclability module -Tabular results of the functional evaluation for user UNIVAQ - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



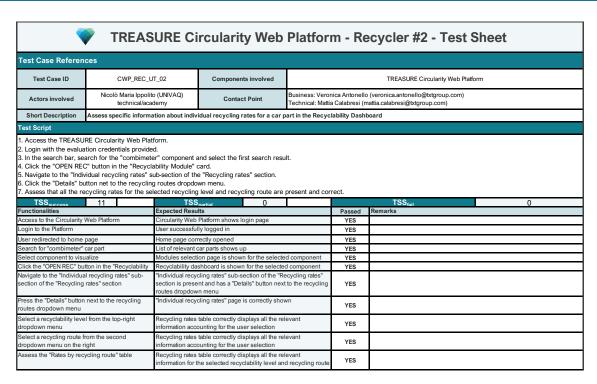


Figure 3.126: Recyclability module - Functional evaluation for user UNIVAQ - Details page

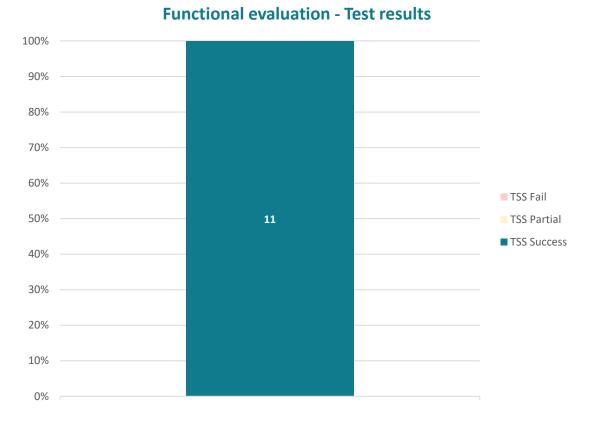


Figure 3.127: Recyclability module -Visual results of the functional evaluation for user UNIVAQ - Details page



| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.128: Recyclability module -Tabular results of the functional evaluation for user UNIVAQ - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.6.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a full score has been achieved by simplicity, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | |
| | Total | | | |
| | 3.9 | | | |

Figure 3.129: Recyclability module – Tabular results of the non-functional assessment for user UNIVAQ - Homepage



Non-functional evaluation - Test results

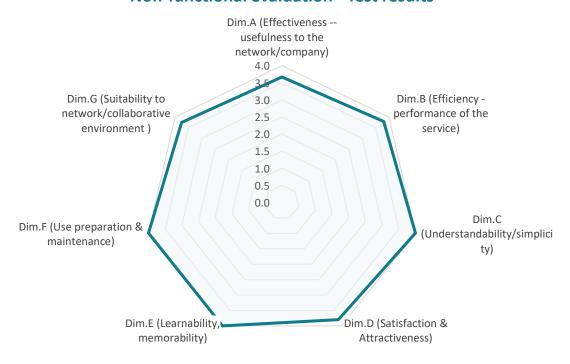


Figure 3.130: Recyclability module – Visual results of the non-functional assessment for user UNIVAQ - Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by simplicity, learnability and maintenance, while a reasonable high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | |
| | Total | | | | |
| | 3.9 | | | | |

Figure 3.131: Recyclability module - Tabular results of the non-functional assessment for user UNIVAQ - Details page



Non-functional evaluation - Test results

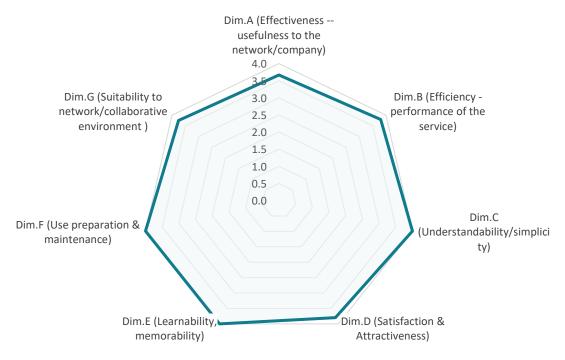


Figure 3.132: Recyclability module – Visual results of the non-functional assessment for user UNIVAQ - Details page

3.2.7 Evaluation tester #7 (WALTERPACK)

3.2.7.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Recycler #1 - Test Sheet | | | | | | | | | |
|---|--|--|--|---------------------------------|----------------|---|----------------------------------|---|--|
| Test Case Referen | ices | | | | | | | | |
| Test Case ID | CWP_REC_U | T_01 | Compone | nts involved | | | TREASURE Circularity Web Platfor | m | |
| Actors involved | | | | | | usiness: Veronica Antonello (veronica.antonello@txtgroup.com) echnical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic recyclin | g information al | out a car part | in the Recyclabil | lity Dashboard | | | | |
| Test Script | | | | | | | | | |
| Login with the evaluation 3. In the search bar, set 4. Click the "OPEN REGISTRENT CONTROL OF THE PROPERTY | JRE Circularity Web Platt ation credentials provided earch for the "combimete C" button in the "Recycla formation expected is co | d. er" component a ability Module" (| card. | | | appropriate fo | ormat. | | |
| TSS | 11 | TSS | | 0 | | | TSS _{fail} | 0 | |
| Functionalities | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | Platform shows | login page | | YES | | | |
| Login to the Platform | | User successful | | | | YES | | | |
| User redirected to home | | Home page con | | | | YES | | | |
| Search for "combimeter" | ' | | ar parts shows | | | YES | | | |
| Select component to visi | | | | vn for the selecte | | YES | | | |
| Click the "OPEN REC" bu "Disassemblability Modu | | Recyclability da | shboard is show | n for the selected | d component | YES | | | |
| Assess component over | all stats section | All relevant info | mation for the d | lesired section is | displayed | YES | | | |
| Assess "Optimization ob section | Assess "Optimization objective of recycling" All relevant recycling optimization objectives is displayed section | | | | lisplayed | YES | | | |
| Assess "General compos section | sition build-up" pie chart | All relevant info | mation for the d | lesired section is | displayed | YES | | | |
| Assess "Recycling rates" | 'section | | mation for the d irrent recyclabil | lesired section is ity level | displayed with | YES | | | |
| | Select a different recycling level using the The recycling rates and processing routes change accordingly dropdown menu at the top of the section | | | | ge accordingly | YES | | | |
| Assess the "Individual re | ss the "Individual recycling rates" sub-section All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing | | | | YES | | | | |
| Select a different process dropdown menu next to | | The individual r | ne individual recycling rates flower chart updates accordingly | | | YES | | | |
| Assess "Feedback for re- | cyclers" section | All relevant info | relevant information for the desired section is displayed | | | YES | | | |
| Press the "Add feedback | " button | The add feedba | dback popup appears | | | YES | | | |
| Insert some feedback tex feedback" button | kt, then press the "Add | The feedback is | e feedback is correctly inserted into the feedbacks table | | | | | | |

Figure 3.133: Recyclability module - Functional evaluation for user WALTEREPACK - Homepage





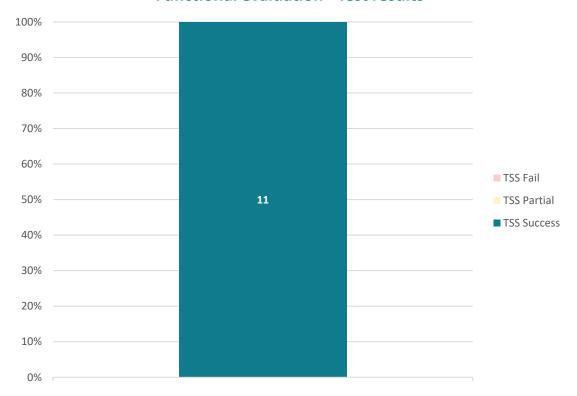


Figure 3.134: Recyclability module -Visual results of the functional evaluation for user WALTERPACK - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.135: Recyclability module -Tabular results of the functional evaluation for user WALTREPACK - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



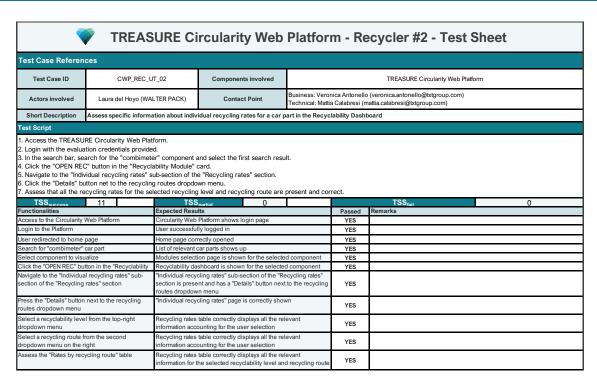


Figure 3.136: Recyclability module - Functional evaluation for user WALTERPACK - Details page

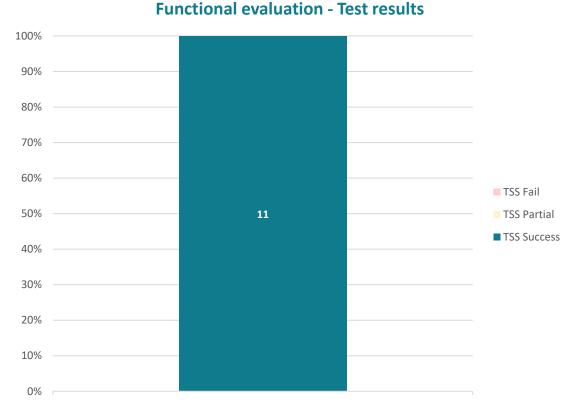


Figure 3.137: Recyclability module -Visual results of the functional evaluation for user WALTERPACK - Details page



| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.138: Recyclability module -Tabular results of the functional evaluation for user WALTERPACK - Details page

If we consider both tests performed on the Recyclability module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.2.7.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail page that provides additional information on materials recycling rates for the desired recyclability level and recycling route.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to recycling routes.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.9 | | | |

Figure 3.139: Recyclability module – Tabular results of the non-functional assessment for user WALTERPACK -Homepage



Non-functional evaluation - Test results

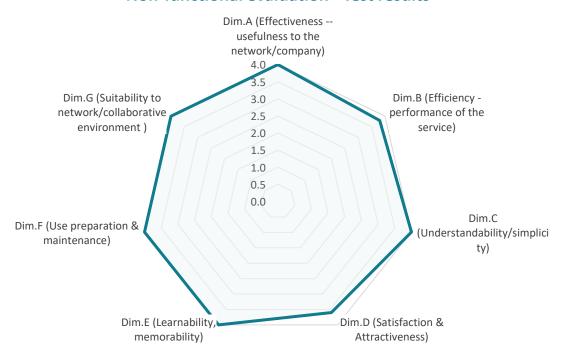


Figure 3.140: Recyclability module – Visual results of the non-functional assessment for user WALTERPACK -Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| | Results |
|---|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.9 |

Figure 3.141: Recyclability module – Tabular results of the non-functional assessment for user WALTERPACK - Details page



Non-functional evaluation - Test results

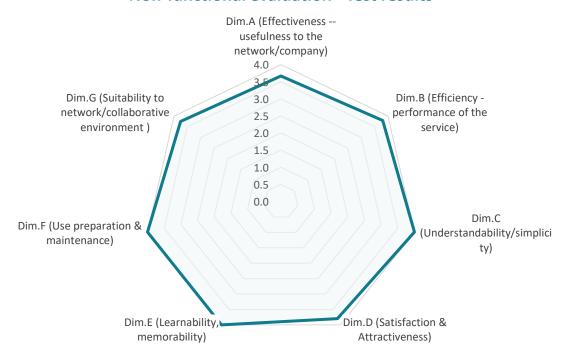


Figure 3.142: Recyclability module – Visual results of the non-functional assessment for user WALTERPACK - Details page

3.2.8 Overall results

3.2.8.1 Functional evaluation

The functional evaluation for the Recyclability module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 154, the total number of TSS partial is 1 and the total number of TSS fail is 0.

| Recyclability Module - Overall Results Assessment | |
|---|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 154 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.143 - Recyclability Module - Functional evaluation overall results assessment

The only attention point for this module has been raised again by EUROLCDS concerning the home page of the Disassemblability dashboard and it is relative to the "Recycling routes" section. In this section the indication related to the steel analysis has been reported as non-high-quality product from the recyclability assessment and the remark suggest to provide an adequate explanation concerning the motivation behind this classification.

3.2.8.2 Non-functional evaluation

The non-functional evaluation for the Recyclability module has an overall satisfactory outcome.



| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.6 | |
| Dim.B (Efficiency - performance of the service) | 3.7 | |
| Dim.C (Understandability/simplicity) | 3.7 | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | |
| Dim.E (Learnability, memorability) | 3.7 | |
| Dim.F (Use preparation & maintenance) | 3.7 | |
| Dim.G (Suitability to network/collaborative environment) | 3.7 | |
| | Total | |
| | 3.7 | |

Figure 3.144: Recyclability Module - Non-functional evaluation overall results assessment

3.3 Eco-Design Module

The Eco-Design module is focused on providing recommendations to car manufacturers with the aim at improving vehicle design to improve car parts recyclability. Like the previous modules, the Eco-design module is composed of the homepage and a series of detail pages (for both metals and plastics) that provides additional information on the material composition of the car part/component.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

The regular user with visualization only mode for the Eco-design module: the user can
only see the platform content related to the standard eco-design dashboards, as well
as the necessary in-between pages necessary for him/her to navigate the platform in a
coherent way. No access to the Circular Advisory dashboards is foreseen for this type
of user.

3.3.1 Evaluation tester #1 (EUROLCDS)

3.3.1.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | | |
|---|---|--|---|-----------|--------------|----------------|---|---|--|
| Test Case Referen | ices | | | | | | | | |
| Test Case ID | CWP_ECO_U | T_01 | Components invol- | ved | | | TREASURE Circularity Web Platfor | m | |
| Actors involved | EuroLCD | | | | | | ca Antonello (veronica.antonello@txtgroup.com) Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description | Visualize basic eco-des | ign information | about a car part in the E | co-Desi | gn Dashboard | | | | |
| Test Script | | | | | | | | | |
| Login with the evaluar In the search bar, se Click the "OPEN ECO | RE Circularity Web Plat ation credentials provide arch for the "combimete O" button in the "Eco-De formation expected is co | d. er" component a sign Module" c | ard. | | | appropriate fo | ormat. | | |
| TSS | 11 | | aleta (et | 0 | | | TSS _{fail} | 0 | |
| Functionalities | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | , | Platform shows login pag | ge | | YES | | | |
| Login to the Platform | | User successful | | | | YES | | | |
| User redirected to home | | Home page con | , , | | | YES | | | |
| Search for "combimeter" | | | car parts shows up | | | YES | | | |
| Select component to visu | | | on page is shown for the | | | YES | | | |
| Click the "OPEN ECO" bu Module" card | , | Eco-design das | hboard is shown for the s | selected | component | YES | | | |
| Assess component over | | | rmation for the desired se | | | YES | | | |
| Assess "Top 5 metals" se | | | rmation for the desired se | | . , | YES | | | |
| Select an option from the right of the section | e metals dropdown on the | All relevant info accordingly | rmation for the desired se | ection up | odates | YES | | | |
| Hover the mouse over the thermodynamic rarity" su | e info icon next to the "By b-section title | A tooltip explain | ing the sub-title meaning | g appears | S | YES | | | |
| Assess the "Plastic characterization" section All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | | YES | | | | | | |
| Assess the "Disassembla | ability metrics" section | The appropriate disassemblability metrics are shown | | YES | | | | | |
| Assess the "Eco-Design | recommendations" | The proper eco-design recommendations are displayed coherently with the metrics above | | YES | | | | | |
| Assess the "Semantic So section | ocial Network Analysis" | The SSNA tool | SSNA tool description is clear and understandable | | | PARTIAL | | | |
| Click the "Open docume | ntation" button | The SSNA tool | tool documentation opens in a new tab | | | YES | | | |
| Click the "Open SSNA To | ool" button | The SSNA tool opens in a new tab | | | YES | | | | |

Figure 3.145: Eco-design module - Functional evaluation for user EUROLCDS - Homepage



Functional evaluation - Test results

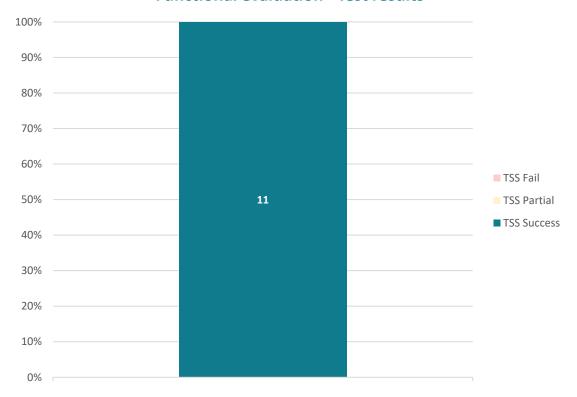


Figure 3.146: Eco-design module -Visual results of the functional evaluation for user EUROLCDS - Homepage

| Results Assessment | | | |
|----------------------|-------------|--|--|
| Functional Dimension | | | |
| | TSS Results | | |
| TSS Success | 11 | | |
| TSS Partial | 0 | | |
| TSS Fail | 0 | | |

Figure 3.147: Eco-design module -Tabular results of the functional evaluation for user EUROLCDS - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) EuroLCDs Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) **Expected Results** Passed Remarks Access to the Circularity Web Platform ser successfully logged in YES arch for "combimeter" car part st of relevant car parts shows up YES elect component to visualize lick the "OPEN ECO" button in the "Eco-Design YES YES fodules selection page is shown for the selected componer lavigate to the "By weight" sub-section of the "By weight" sub-section of the "Top 5 metals" section is presen Top 5 metals" section nd has a "Details" button above the corresponding stacked bar YES Press the "Details" button above the Metals by weight" page is correctly shown YES rresponding stacked bar chart letals table correctly displays all the relevant information YES elect a filtering method from the dropdo ext to "Assess" Metals table correctly displays all the relevant informatio accounting for the user selection Assess the "Metals by weight" table Metals table correctly displays all the relevant information for the elected filtering methods Hover the mouse over the info icon next to the "Share over the total weight", "Supply risk" and "SMI" table column titles A tooltip explaining the table column title meaning appears YES ress the "Export" button Data are exported successfully in ".xlsx" format, following the YES applied filters

Figure 3.148: Eco-design module - Functional evaluation for user EUROLCDS - Details page



Functional evaluation - Test results

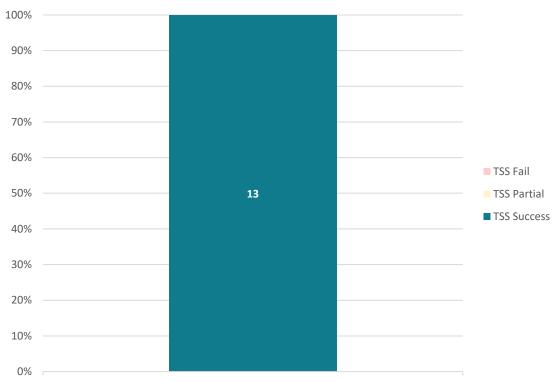


Figure 3.149: Eco-design module -Visual results of the functional evaluation for user EUROLCDS - Details page

| Results Assessment | | |
|----------------------|-------------|--|
| Functional Dimension | | |
| | TSS Results | |
| TSS Success | 13 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |

Figure 3.150: Eco-design module -Tabular results of the functional evaluation for user EUROLCDS - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.1.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by satisfaction and learnability, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | |
| Dim.B (Efficiency - performance of the service) | 3.8 | |
| Dim.C (Understandability/simplicity) | 3.7 | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 3.8 | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | |
| | Total | |
| | 3.7 | |

Figure 3.151: Eco-design module – Tabular results of the non-functional assessment for user EUROLCDS - Homepage

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

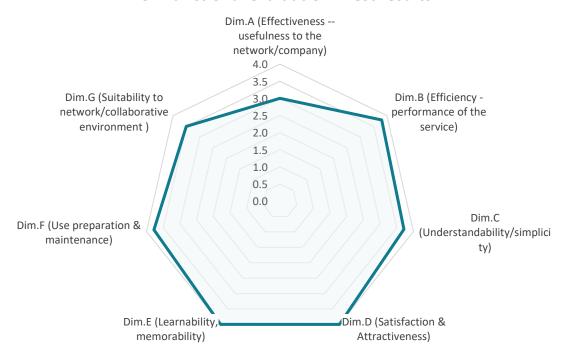


Figure 3.152: Eco-design module – Visual results of the non-functional assessment for user EUROLCDS - Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | |
|--|---------|--|--|
| | Results | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | |
| Dim.C (Understandability/simplicity) | 4.0 | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | |
| Dim.E (Learnability, memorability) | 4.0 | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | |
| | Total | | |
| _ | 3.8 | | |

Figure 3.153: Eco-design module – Tabular results of the non-functional assessment for user EUROLCDS - Details page



Non-functional evaluation - Test results

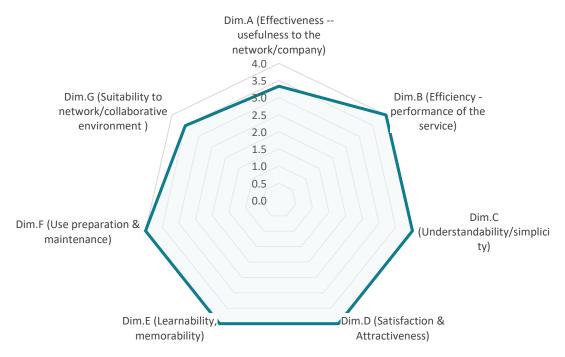


Figure 3.154: Eco-design module – Visual results of the non-functional assessment for user EUROLCDS - Details page

3.3.2 Evaluation tester #2 (ILSSA)

3.3.2.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



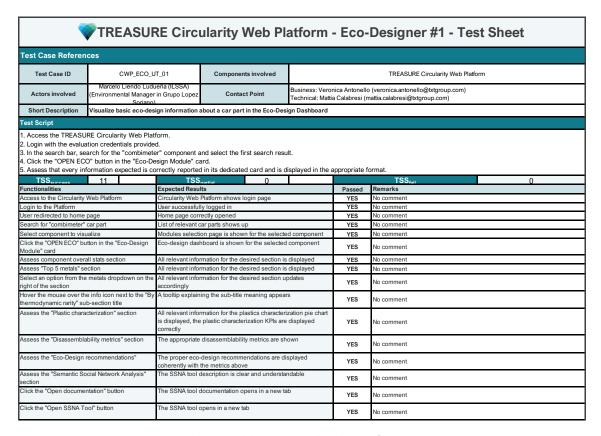


Figure 3.155: Eco-design module - Functional evaluation for user ILSSA - Homepage





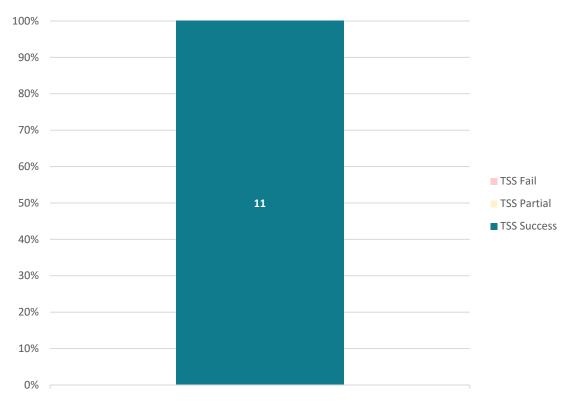


Figure 3.156: Eco-design module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 11 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.157: Eco-design module -Tabular results of the functional evaluation for user ILSSA - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Marcelo Liendo Ludueña (ILSSA) Environmental Manager in Grupo Lope: Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard 1. Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) **Expected Results** Passed Remarks Access to the Circularity Web Platform No comment ser successfully logged in YES No comment earch for "combimeter" car part st of relevant car parts shows up YES elect component to visualize lick the "OPEN ECO" button in the "Eco-Design YES YES fodules selection page is shown for the selected componer No comment lavigate to the "By weight" sub-section of the "By weight" sub-section of the "Top 5 metals" section is presen Top 5 metals" section nd has a "Details" button above the corresponding stacked bar YES No comment Press the "Details" button above the Metals by weight" page is correctly shown YES No comment rresponding stacked bar chart letals table correctly displays all the relevant information YES elect a filtering method from the dropdo ext to "Assess" Metals table correctly displays all the relevant informatio accounting for the user selection Assess the "Metals by weight" table Metals table correctly displays all the relevant information for the elected filtering methods Hover the mouse over the info icon next to the "Share over the total weight", "Supply risk" and "SMI" table column titles A tooltip explaining the table column title meaning appears YES ress the "Export" button Data are exported successfully in ".xlsx" format, following the YES No comment applied filters

Figure 3.158: Eco-design module - Functional evaluation for user ILSSA - Details page



Functional evaluation - Test results

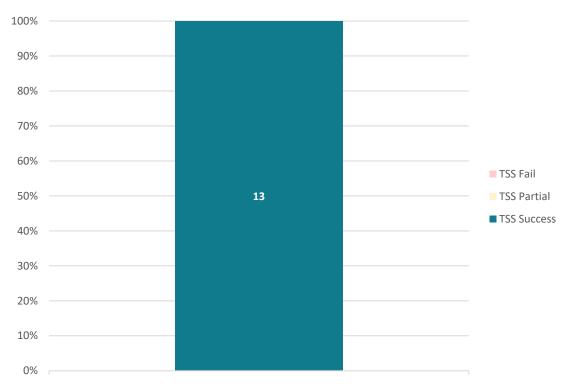


Figure 3.159: Eco-design module -Visual results of the functional evaluation for user ILSSA - Details page

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 13 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.160: Eco-design module -Tabular results of the functional evaluation for user ILSSA - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.2.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by effectiveness, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 3.8 | |
| Dim.C (Understandability/simplicity) | 3.9 | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | |
| Dim.E (Learnability, memorability) | 3.8 | |
| Dim.F (Use preparation & maintenance) | 3.7 | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | |
| | Total | |
| | 3.8 | |

Figure 3.161: Eco-design module - Tabular results of the non-functional assessment for user ILSSA - Homepage

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results Dim.A (Effectiveness -usefulness to the network/company) 4.0 Dim.G (Suitability to Dim.B (Efficiency -3.0 network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance) ty) Dim.E (Learnability, Dim.D (Satisfaction & memorability) Attractiveness)

Figure 3.162: Eco-design module – Visual results of the non-functional assessment for user ILSSA - Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by effectiveness and efficiency, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | |
|---|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 4.0 | |
| Dim.C (Understandability/simplicity) | 3.9 | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | |
| Dim.E (Learnability, memorability) | 3.8 | |
| Dim.F (Use preparation & maintenance) | 3.7 | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | |
| | Total | |
| | 3.8 | |

Figure 3.163: Eco-design module – Tabular results of the non-functional assessment for user ILSSA – Details page



Dim.A (Effectiveness -usefulness to the network/company) 4.0 3.5 Dim.G (Suitability to Dim.B (Efficiency -3.0 network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance) ty)

Non-functional evaluation - Test results

Figure 3.164: Eco-design module – Visual results of the non-functional assessment for user ILSSA – Details page

Dim.D (Satisfaction &

Attractiveness)

3.3.3 Evaluation tester #3 (POLLINI)

Dim.E (Learnability,

memorability)

3.3.3.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | |
|---|---|---|--|--|-----------------------------------|----------------|---------------------|---|
| Test Case References | | | | | | | | |
| Test Case ID | CWP_ECO_UT_01 | | Components involved | | TREASURE Circularity Web Platform | | | |
| Actors involved | Matteo Rube | Contact Point | t | Business: Veronica Antonello (veronica.antonello@bttgroup.com) Technical: Mattia Calabresi (mattia.calabresi@bttgroup.com) | | | | |
| Short Description | ption Visualize basic eco-design information about a car part in | | | Eco-Desi | gn Dashboard | | | |
| Test Script | | | | | | | | |
| Access the TREASU Login with the evalua In the search bar, se Click the "OPEN ECC Assess that every interest. | ation credentials prov arch for the "combin O" button in the "Eco | ded. eter" component Design Module" c | ard. | | | appropriate fo | ormat. | |
| TSS | 11 | | Darrial | 0 | | | TSS _{fail} | 0 |
| Functionalities | | | Expected Results | | | | Remarks | |
| Access to the Circularity | Web Platform | , | Circularity Web Platform shows login page | | | | | |
| Login to the Platform | | | User successfully logged in | | | YES | | |
| User redirected to home | | | Home page correctly opened | | | YES | | |
| Search for "combimeter" | | | List of relevant car parts shows up | | | YES | | |
| Select component to visualize | | | Modules selection page is shown for the selected component | | | YES | | |
| Click the "OPEN ECO" bu Module" card | , | Eco-design das | Eco-design dashboard is shown for the selected component | | | YES | | |
| Assess component over | all stats section | All relevant info | All relevant information for the desired section is displayed | | | YES | | |
| Assess "Top 5 metals" se | ection | All relevant info | All relevant information for the desired section is displayed | | | YES | | |
| Select an option from the right of the section | | | All relevant information for the desired section updates accordingly | | | YES | | |
| | | | A tooltip explaining the sub-title meaning appears | | | YES | | |
| Assess the "Plastic chara | | | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | | YES | | |
| Assess the "Disassembla | ability metrics" section | The appropriate disassemblability metrics are shown | | | YES | | | |
| Assess the "Eco-Design | recommendations" | | The proper eco-design recommendations are displayed coherently with the metrics above | | | YES | | |
| Assess the "Semantic So section | ocial Network Analysis' | The SSNA tool | The SSNA tool description is clear and understandable | | | YES | | |
| Click the "Open docume | Click the "Open documentation" button | | | YES | | | | |
| Click the "Open SSNA To | ool" button | The SSNA tool | The SSNA tool opens in a new tab | | | YES | | |

Figure 3.165: Eco-design module - Functional evaluation for user POLLINI - Homepage



Functional evaluation - Test results

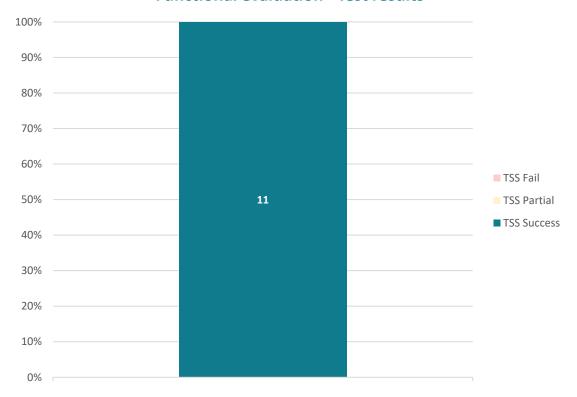


Figure 3.166: Eco-design module -Visual results of the functional evaluation for user POLLINI - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.167: Eco-design module -Tabular results of the functional evaluation for user POLLINI - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Matteo Rubes (POLLINI) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard Access the TREASURE Circularity Web Platform. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) **Expected Results** Passed Remarks Access to the Circularity Web Platform YES earch for "combimeter" car part ist of relevant car parts shows up YES elect component to visualize lick the "OPEN ECO" button in YES YES Modules selection page is shown for the selected componer te to the "By weight" sub-section of the Top 5 metals" section and has a "Details" button above the corresponding stacked bar YES Press the "Details" button above the Metals by weight" page is correctly shown YES rresponding stacked bar chart etals table correctly displays all the relevant information YES elect a filtering method from the dropdown me ext to "Assess" Metals table correctly displays all the relevant information accounting for the user selection Metals table correctly displays all the relevant information for the selected filtering methods Assess the "Metals by weight" table Hover the mouse over the info icon next to the A tooltip explaining the table column title meaning appear "Share over the total weight", "Supply risk" and "SMI" table column titles YES ress the "Export" button Data are exported successfully in ".xlsx" format, following the YES applied filters

Figure 3.168: Eco-design module - Functional evaluation for user POLLINI - Details page



Functional evaluation - Test results

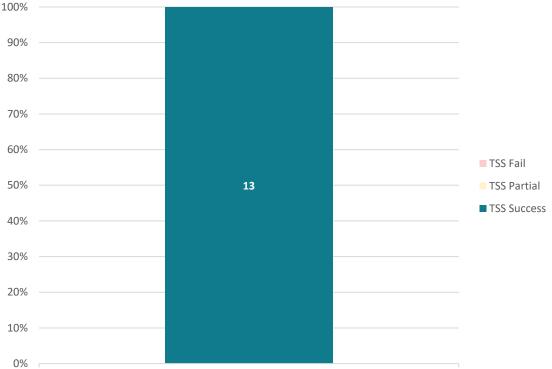


Figure 3.169: Eco-design module -Visual results of the functional evaluation for user POLLINI - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 13 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.170: Eco-design module -Tabular results of the functional evaluation for user POLLINI - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.3.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | |
| | Total | | | | |
| | 4.0 | | | | |

Figure 3.171: Eco-design module – Tabular results of the non-functional assessment for user POLLINI - Homepage

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.

Non-functional evaluation - Test results

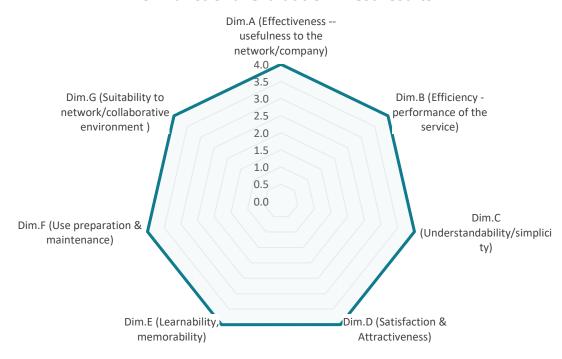


Figure 3.172: Eco-design module – Visual results of the non-functional assessment for user Pollini - Homepage

If we consider the non-functional evaluation of the details page, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | |
| | Total | | | | |
| | 4.0 | | | | |

Figure 3.173: Eco-design module – Tabular results of the non-functional assessment for user POLLINI – Details page



Dim.A (Effectiveness -usefulness to the network/company) 4.0 3.5 Dim.G (Suitability to Dim.B (Efficiency -3.0 network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance)

Non-functional evaluation - Test results

Figure 3.174: Eco-design module – Visual results of the non-functional assessment for user POLLINI – Details page

3.3.4 Evaluation tester #4 (SEAT)

Dim.E (Learnability,

memorability)

3.3.4.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

ty)

Dim.D (Satisfaction &

Attractiveness)



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | |
|--|--|--|---------------------|------|-----|--|---------------------|---|
| Test Case References | | | | | | | | |
| Test Case ID | CWP_ECO_UT_01 | | Components involved | | | TREASURE Circularity Web Platform | | |
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | | | oint | | ica Antonello (veronica.antonello@txtgroup.com) Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description | escription Visualize basic eco-design information about a car part in the Eco-Design Dashboard | | | | | | | |
| Test Script | | | | | | | | |
| | O" button in the "Eco-De | d. er" component a esign Module" c | ard. | | | appropriate fo | ormat. | |
| TSS | 11 | | nartial | 0 | | | TSS _{fail} | 0 |
| Functionalities | | Expected Resu | | | | Passed | Remarks | |
| Access to the Circularity | Web Platform | Circularity Web Platform shows login page | | | | YES | | |
| Login to the Platform | | User successfully logged in | | | YES | | | |
| User redirected to home | | Home page correctly opened | | | | YES | | |
| Search for "combimeter" | | List of relevant car parts shows up | | | | YES | | |
| Select component to visu | | Modules selection page is shown for the selected component | | | YES | | | |
| Click the "OPEN ECO" bu Module" card | | Eco-design dashboard is shown for the selected component | | | | YES | | |
| Assess component overa | | All relevant information for the desired section is displayed | | | YES | | | |
| Assess "Top 5 metals" se | | All relevant information for the desired section is displayed | | | | YES | | |
| Select an option from the right of the section | metals dropdown on the | All relevant information for the desired section updates accordingly | | | YES | | | |
| Hover the mouse over the info icon next to the "By thermodynamic rarity" sub-section title | | A tooltip explaining the sub-title meaning appears | | | YES | | | |
| Assess the "Plastic chara | cterization" section | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | | YES | | | |
| Assess the "Disassembla | bility metrics" section | The appropriate disassemblability metrics are shown | | | YES | | | |
| Assess the "Eco-Design I | recommendations" | The proper eco-design recommendations are displayed coherently with the metrics above | | | YES | | | |
| Assess the "Semantic So section | icial Network Analysis" | The SSNA tool description is clear and understandable | | | YES | | | |
| Click the "Open documentation" button The SSNA tool documentation opens in a new tab | | | YES | | | | | |
| Click the "Open SSNA To | ool" button | The SSNA tool opens in a new tab | | | YES | | | |

Figure 3.175: Eco-design module - Functional evaluation for user SEAT - Homepage





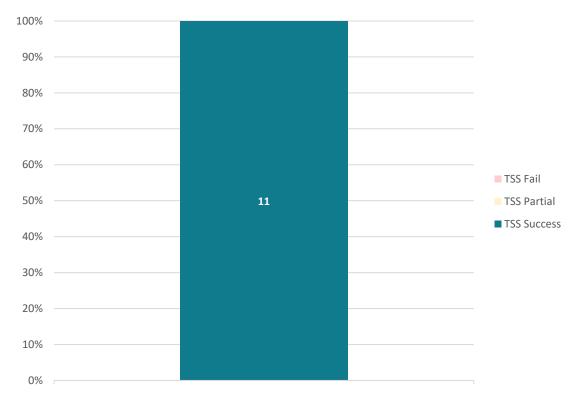


Figure 3.176: Eco-design module -Visual results of the functional evaluation for user SEAT - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.177: Eco-design module -Tabular results of the functional evaluation for user SEAT - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet | | | | | | | | |
|---|---|--|--|--------------|-----------------------------------|--|-----------------------|--|
| Test Case References | | | | | | | | |
| Test Case ID | CWP_ECO_U (CWP_ECO_U | Components involved | | | TREASURE Circularity Web Platform | | | |
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | | Contact P | oint | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description Asse | ess and export spec | ific information | about material con | nposition fo | or a car part in the | Eco-Design | n Dashboard | |
| Test Script | | | | | | | | |
| 3. In the search bar, search id. Click the "OPEN ECO" bu 5. Navigate to the "By weigh 6. Click the "Details" button in 7. Assess that all the detailed. Export the detailed inform NOTE: The following proced 5. Navigate to the "By therm 5. Navigate to the "Plastico". | tton in the "Eco-De t" sub-section of th above the correspo d information about lation in Excel form ures have a similar lodynamic rarity" si | esign Module" come "Top 5 metals anding chart. It the selected as at. interaction moub-section of the selection of the section of the selection of the selecti | ard. " section. spect for the desire del to the current of e "Top 5 metals" s | ed car part | t are present and | the same te | est case for brevity: | |
| | 13 | | J_U1_04) | 0 | | | TSS ₆₋₁ | |
| Functionalities | 13 | Expected Resu | Half Half | - 0 | | Passed | Remarks | |
| Access to the Circularity Web F | Platform | Circularity Web | Platform shows logic | n page | | YES | | |
| Login to the Platform | | User successful | ly logged in | | | YES | | |
| User redirected to home page | | Home page corr | ectly opened | | | YES | | |
| Search for "combimeter" car pa | art | List of relevant of | ar parts shows up | | | YES | | |
| Select component to visualize | | | on page is shown fo | | | YES | | |
| Click the "OPEN ECO" button in | ů | ů | hboard is shown for | | | YES | | |
| Navigate to the "By weight" sub "Top 5 metals" section | o-section of the | | -section of the "Top Is" button above the | | | YES | | |
| Press the "Details" button abov corresponding stacked bar cha | | "Metals by weig | ht" page is correctly | shown | | YES | | |
| Select a filtering method from t next to "Show" | · | accounting for the | Metals table correctly displays all the relevant information accounting for the user selection | | | YES | | |
| Select a filtering method from t next to "Assess" | · | accounting for the | Metals table correctly displays all the relevant information accounting for the user selection | | | YES | | |
| Assess the "Metals by weight" | table | Metals table correctly displays all the relevant information for the selected filtering methods | | | | YES | | |
| Hover the mouse over the info "Share over the total weight", "3 "SMI" table column titles | | | ing the table column | | | YES | | |
| Press the "Export" button | | Data are exporte applied filters | ed successfully in ".x | dsx" format, | following the | YES | | |

Figure 3.178: Eco-design module - Functional evaluation for user SEAT - Details page



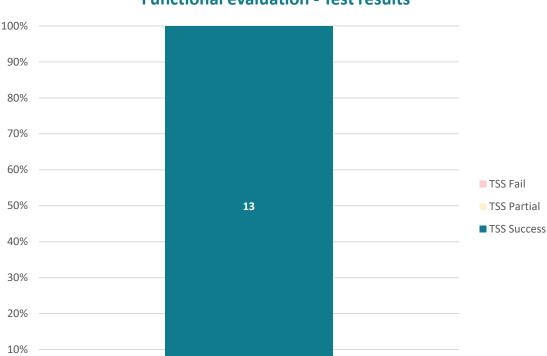


Figure 3.179: Eco-design module -Visual results of the functional evaluation for user SEAT - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 13 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.180: Eco-design module -Tabular results of the functional evaluation for user SEAT - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.4.2 Non-functional Evaluation

0%

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard. Some attention is instead needed by simplicity.



| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | | |
| Dim.C (Understandability/simplicity) | 2.7 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | | |
| Dim.E (Learnability, memorability) | 2.8 | | | | |
| Dim.F (Use preparation & maintenance) | 2.9 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | | |
| | Total | | | | |
| | 3.1 | | | | |

Figure 3.181: Eco-design module – Tabular results of the non-functional assessment for user SEAT - Homepage

Non-functional evaluation - Test results

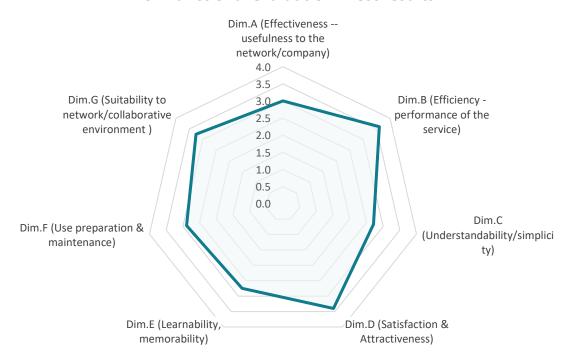


Figure 3.182: Eco-design module – Visual results of the non-functional assessment for user SEAT - Homepage

If we consider the non-functional evaluation of the details page a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | | |
| Dim.C (Understandability/simplicity) | 3.3 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.2 | | | | |
| Dim.E (Learnability, memorability) | 3.0 | | | | |
| Dim.F (Use preparation & maintenance) | 3.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.0 | | | | |
| | Total | | | | |
| | 3.2 | | | | |

Figure 3.183: Eco-design module – Tabular results of the non-functional assessment for user SEAT – Details page

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.



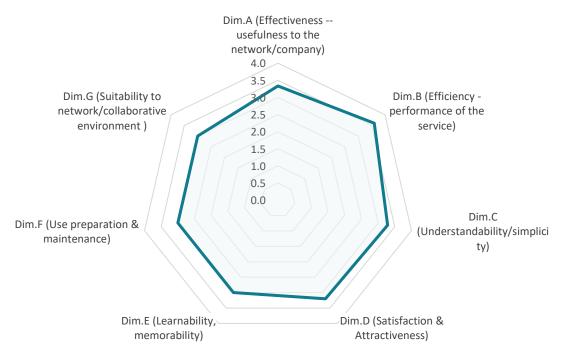


Figure 3.184: Eco-design module – Visual results of the non-functional assessment for user SEAT – Details page

3.3.5 Evaluation tester #5 (TNO)

3.3.5.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | | | |
|---|--|--|---|-----------------|---|---------------|----------------|---------------------------------|-----|--|
| Test Case Referen | ices | | | | | | | | | |
| Test Case ID | CWP_E | CWP_ECO_UT_01 Components involved | | | | | | TREASURE Circularity Web Platfo | orm | |
| Actors involved | Stephan Harkema (TNO) | | | Conta | Contact Point Business: Veronica Antonello (veronica.antonello@bxtgroup.com) Technicai: Mattia Calabresi (mattia.calabresi@bxtgroup.com) | | | | | |
| Short Description | Visualize basic ed | o-des | ign information | about a car pai | rt in the Eco-Des | ign Dashboard | | | | |
| Test Script | | | | | | | | | | |
| Access the TREASU Login with the evalua In the search bar, se Click the "OPEN EC Assess that every in | ation credentials p earch for the "com O" button in the "E | rovide bimete co-De | ed. er" component a esign Module" c | ard. | | | appropriate fo | ormat. | | |
| TSS | 11 | | | nartial | 0 | | | TSS _{fail} | 0 | |
| Functionalities | | | Expected Resu | | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | , | Platform shows | login page | | YES | | | |
| Login to the Platform | | | User successful | | | | YES | | | |
| User redirected to home page | | | Home page con | | | | YES | | | |
| Search for "combimeter" | | | | car parts shows | | | YES | | | |
| Select component to visualize | | Modules selection page is shown for the selected component | | | | YES | | | | |
| Click the "OPEN ECO" bu Module" card | utton in the "Eco-De: | sign | Eco-design dashboard is shown for the selected component | | | | YES | | | |
| Assess component over | | | All relevant information for the desired section is displayed | | | | YES | | | |
| Assess "Top 5 metals" se | ection | | All relevant information for the desired section is displayed | | | | YES | | | |
| | e metals dropdown | on the | All relevant information for the desired section updates | | | | YES | | | |
| right of the section | | | accordingly | | | | 110 | | | |
| Hover the mouse over the thermodynamic rarity" su | | he "By | A tooltip explaining the sub-title meaning appears | | | YES | | | | |
| Assess the "Plastic characterization" section | | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | | YES | | | | | |
| Assess the "Disassemblability metrics" section | | The appropriate disassemblability metrics are shown | | | YES | | | | | |
| Assess the "Eco-Design recommendations" The proper eco-design recommendations are displayed coherently with the metrics above | | | | YES | | | | | | |
| Assess the "Semantic Social Network Analysis" The SSNA tool description is clear and understandable section | | | | YES | | | | | | |
| Click the "Open docume | ntation" button | | The SSNA tool | documentation | opens in a new ta | ab | YES | | | |
| Click the "Open SSNA Tool" button | | | | | YES | | | | | |

Figure 3.185: Eco-design module - Functional evaluation for user TNO - Homepage



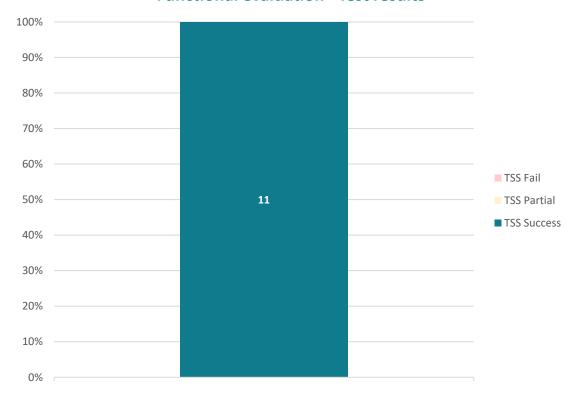


Figure 3.186: Eco-design module -Visual results of the functional evaluation for user TNO - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.187: Eco-design module -Tabular results of the functional evaluation for user TNO - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard Access the TREASURE Circularity Web Platform. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) Expected Results Passed Remarks Access to the Circularity Web Platform YES earch for "combimeter" car part ist of relevant car parts shows up YES elect component to visualize lick the "OPEN ECO" button in YES YES Modules selection page is shown for the selected componer te to the "By weight" sub-section of the Top 5 metals" section and has a "Details" button above the corresponding stacked bar YES Press the "Details" button above the Metals by weight" page is correctly shown YES rresponding stacked bar chart etals table correctly displays all the relevant information YES elect a filtering method from the dropdown me ext to "Assess" Metals table correctly displays all the relevant information accounting for the user selection Metals table correctly displays all the relevant information for the selected filtering methods Assess the "Metals by weight" table Hover the mouse over the info icon next to the A tooltip explaining the table column title meaning appear "Share over the total weight", "Supply risk" and "SMI" table column titles YES ress the "Export" button Data are exported successfully in ".xlsx" format, following the YES applied filters

Figure 3.188: Eco-design module - Functional evaluation for user TNO - Details page



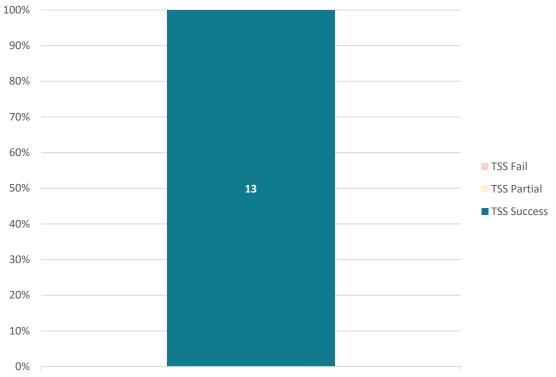


Figure 3.189: Eco-design module -Visual results of the functional evaluation for user TNO - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 13 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.190: Eco-design module -Tabular results of the functional evaluation for user TNO - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.5.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

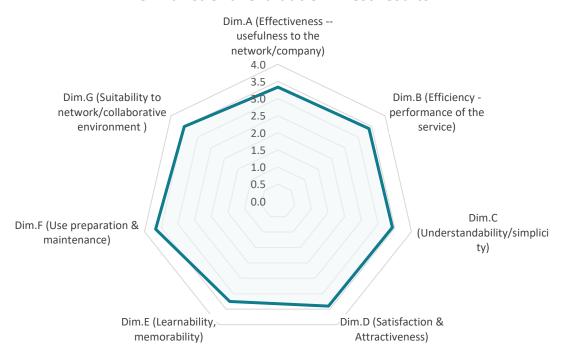
If we consider the non-functional evaluation of the homepage a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | | |
| Dim.C (Understandability/simplicity) | 3.4 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | | |
| Dim.E (Learnability, memorability) | 3.3 | | | | |
| Dim.F (Use preparation & maintenance) | 3.7 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.4 | | | | |

Figure 3.191: Eco-design module – Tabular results of the non-functional assessment for user TNO - Homepage

Non-functional evaluation - Test results



 $\textit{Figure 3.192: Eco-design module-Visual results of the non-functional assessment for user {\tt TNO-Homepage} \\$

If we consider the non-functional evaluation of the details page a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.2 | | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | | |
| Dim.E (Learnability, memorability) | 3.0 | | | | |
| Dim.F (Use preparation & maintenance) | 3.3 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | | |
| | Total | | | | |
| | 3.4 | | | | |

Figure 3.193: Eco-design module – Tabular results of the non-functional assessment for user TNO - Details page

The results are graphically visualized through the radar chart in the figure below that allows to understand at a glance the assessment results and areas of potential improvement.



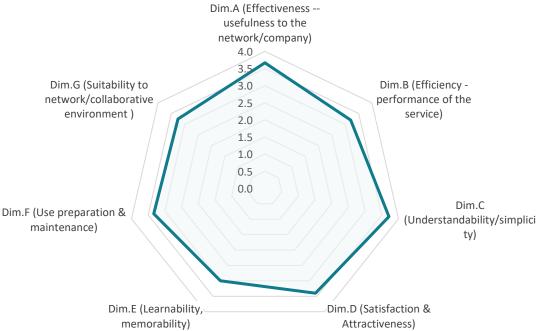


Figure 3.194: Eco-design module – Visual results of the non-functional assessment for user TNO - Details page

3.3.6 Evaluation tester #6 (UNIVAQ)

3.3.6.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with only a minor remark on the quality of displaying some elements in the ECO dashboard.



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | |
|--|--|--|------------------------|---------------|----------------|--|-----------------------------------|-----------------------|
| Test Case Reference | ces | | | | | | | |
| Test Case ID | CWP_ECO_U | Components involved | | | | TREASURE Circularity Web | Platform | |
| Actors involved | Nicolò Maria Ippolito technical/acad | | | | | (veronica.antonello@txtgroup.com nattia.calabresi@txtgroup.com) |) | |
| Short Description | Visualize basic eco-desi | gn information | about a car part in th | ne Eco-Des | sign Dashboard | | | |
| Test Script | | | | | | | | |
| Access the TREASUR Login with the evaluar In the search bar, sea Click the "OPEN ECC Assess that every information." | tion credentials provided arch for the "combimete D" button in the "Eco-De | d. r" component a sign Module" ca | ard. | | | ippropriate fo | ormat. | |
| TSS | 10 | TSS | nartial | 1 | | | TSS _{fail} | 0 |
| Functionalities | | Expected Resu | | | | Passed | Remarks | |
| Access to the Circularity \ | Web Platform | | Platform shows login | page | | YES | | • |
| Login to the Platform | | User successful | | | | YES | | |
| User redirected to home p | | Home page corr | | | • | YES | | |
| Search for "combimeter" of | | List of relevant of | car parts shows up | | | YES | | <u> </u> |
| Select component to visu | alize | Modules selecti | on page is shown for | the selecte | ed component | YES | | |
| Click the "OPEN ECO" but Module" card | tton in the "Eco-Design | Eco-design das | hboard is shown for t | he selected | component | YES | | |
| Assess component overa | all stats section | All relevant info | rmation for the desire | d section is | displayed | YES | | |
| Assess "Top 5 metals" se | ction | All relevant info | rmation for the desire | d section is | displayed | PARTIAL | by thermodinamic rarity AI and Ag | are to well displayed |
| Select an option from the right of the section | · | accordingly | | | | YES | | |
| thermodynamic rarity" sub | b-section title | A tooltip explaining the sub-title meaning appears | | | | YES | | |
| Assess the "Plastic characterization" section | | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | | YES | | | |
| Assess the "Disassemblability metrics" section | | The appropriate disassemblability metrics are shown | | | | YES | | |
| Assess the "Eco-Design recommendations" | | The proper eco-design recommendations are displayed coherently with the metrics above | | | | YES | | |
| Assess the "Semantic Soc section | The SSNA tool description is clear and understandable | | | | YES | | | |
| Click the "Open documen | ntation" button | The SSNA tool | documentation opens | s in a new ta | ab | YES | | |
| Click the "Open SSNA To | ool" button | The SSNA tool | opens in a new tab | | | YES | | |

Figure 3.195: Eco-design module - Functional evaluation for user UNIVAQ - Homepage

The evaluation shows no TSS fail with only one TSS partial which is related to the thermodynamic rarity remark above, granting a satisfactory score overall, as visible in the figure below.





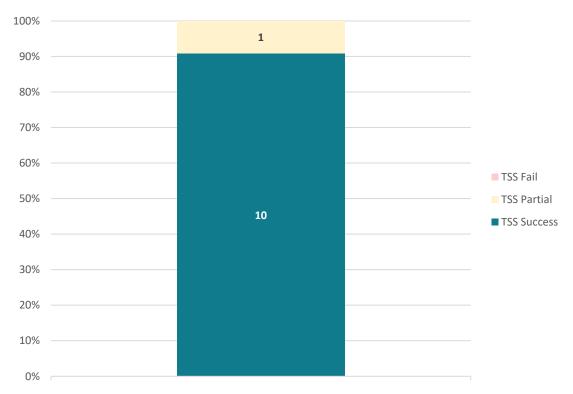


Figure 3.196: Eco-design module -Visual results of the functional evaluation for user UNIVAQ - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 10 | | | | |
| TSS Partial | 1 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.197: Eco-design module -Tabular results of the functional evaluation for user UNIVAQ - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Nicolò Maria Ippolito (UNIVAQ) technical/academic Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard Access the TREASURE Circularity Web Platform. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) TSS **Expected Results** Passed Remarks YES ch for "combimeter" car part ist of relevant car parts shows up YES ect component to visualize k the "OPEN ECO" button in YES YES Modules selection page is shown for the selected compo te to the "By weight" sub-section of the Top 5 metals" section and has a "Details" button above the corresponding stacked bar YES Press the "Details" button above the Metals by weight" page is correctly shown YES rresponding stacked bar chart YES counting for the user selection elect a filtering method from the dropdown me ext to "Assess" Metals table correctly displays all the relevant information accounting for the user selection Assess the "Metals by weight" table Metals table correctly displays all the relevant information for the elected filtering methods Hover the mouse over the info icon next to the A tooltip explaining the table column title meaning appear Share over the total weight", "Supply risk" and SMI" table column titles YES ess the "Export" button Data are exported successfully in ".xlsx" format, following the PARTIAL File name is too long and some unit of measure missing applied filters

Figure 3.198: Eco-design module - Functional evaluation for user UNIVAQ - Details page

The evaluation shows no TSS fail with only one TSS partial related to the name of the exported file as mentioned above, granting a satisfactory score overall, as visible in the figure below.



20%

10%

0%

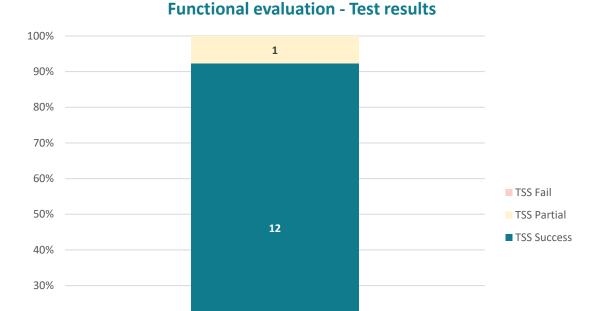


Figure 3.199: Eco-design module -Visual results of the functional evaluation for user UNIVAQ - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 12 | | | | |
| TSS Partial | 1 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.200: Eco-design module -Tabular results of the functional evaluation for user UNIVAQ - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and most results are TSS Success.

3.3.6.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by efficiency, learnability and maintenance, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.8 | | | | |

Figure 3.201: Eco-design module – Tabular results of the non-functional assessment for user UNIVAQ - Homepage

Non-functional evaluation - Test results

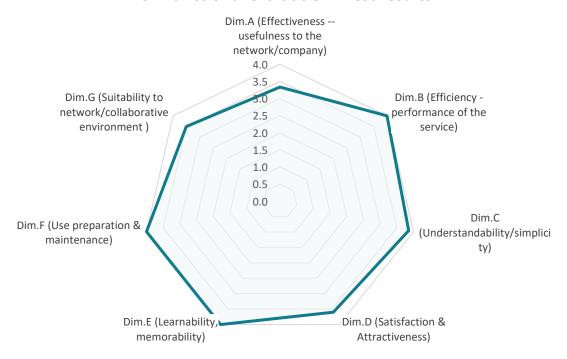


Figure 3.202: Eco-design module – Visual results of the non-functional assessment for user UNIVAQ - Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by maintenance, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | |
| | Total | | | | |
| | 3.8 | | | | |

 $\textit{Figure 3.203: Eco-design module-Tabular results of the non-functional assessment for user \textit{UNIVAQ-Details page}} \\$



Dim.A (Effectiveness -usefulness to the network/company) 4.0 Dim.G (Suitability to Dim.B (Efficiency -3.0 network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance) ty) Dim.E (Learnability, Dim.D (Satisfaction & memorability) Attractiveness)

Non-functional evaluation - Test results

Figure 3.204: Eco-design module – Visual results of the non-functional assessment for user UNIVAQ - Details page

3.3.7 Evaluation tester #7 (WALTERPACK)

3.3.7.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis. A minor remark is provided again underlying the need to improve the chart labels when the data displayed is too small.



| TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet | | | | | | | | |
|---|--|--|--|-----------------|--|-----------------------------------|---|--|
| Test Case Referen | ces | | | | | | | |
| Test Case ID | CWP_ECO_U | IT_01 | Components involved | | | TREASURE Circularity Web Platform | | |
| Actors involved | Laura del Hoyo (WAI | LTER PACK) | Contact Point | | Business: Veronica Antonello (veronica.antonello@bxtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@bxtgroup.com) | | | |
| Short Description | Visualize basic eco-des | ign information | about a car part in the Eco-D | esign Dashboard | | | | |
| Test Script | | | | | | | | |
| Login with the evalua In the search bar, se Click the "OPEN ECC Assess that every interest. | O" button in the "Eco-De formation expected is co | d. er" component a esign Module" c orrectly reporte | d in its dedicated card and i | | appropriate fo | | | |
| TSS | 11 | | nartial 0 | | | TSS _{fail} | 0 | |
| Functionalities Access to the Circularity | Mak Dietferen | Expected Resu | | | Passed | Remarks | | |
| , , , | Web Platform | , | Platform shows login page | | YES | | | |
| Login to the Platform User redirected to home | | User successful Home page con | | | YES YES | | | |
| | | | | | | | | |
| Search for "combineter" | | | car parts shows up | -td | YES | | | |
| Select component to visu | | Modules selection page is shown for the selected comp | | | YES | | | |
| Click the "OPEN ECO" button in the "Eco-Design Module" card | | Eco-design dashboard is shown for the selected component | | | YES | | | |
| Assess component over | | All relevant information for the desired section is displayed | | | YES | | | |
| Assess "Top 5 metals" section | | All relevant information for the desired section is displayed | | YES | It's difficult to see clearly the figures of the metals with the lowest weight content | | | |
| Select an option from the metals dropdown on the right of the section | | All relevant information for the desired section updates accordingly | | | YES | | | |
| Hover the mouse over the info icon next to the "By thermodynamic rarity" sub-section title | | y A tooltip explaining the sub-title meaning appears | | | YES | | | |
| Assess the "Plastic chara | cterization" section | | rmation for the plastics characterization KPIs | | YES | | | |
| Assess the "Disassembla | bility metrics" section | The appropriate | disassemblability metrics are | shown | YES | | | |
| Assess the "Eco-Design recommendations" The proper eco-design recommendation coherently with the metrics above | | | the metrics above | . , | YES | | | |
| Assess the "Semantic So section | | The SSNA tool | description is clear and under | standable | YES | | · | |
| Click the "Open docume | ntation" button | The SSNA tool | documentation opens in a nev | v tab | YES | | | |
| Click the "Open SSNA To | ool" button | The SSNA tool | opens in a new tab | | YES | | | |

Figure 3.205: Eco-design module - Functional evaluation for user WALTERPACK - Homepage



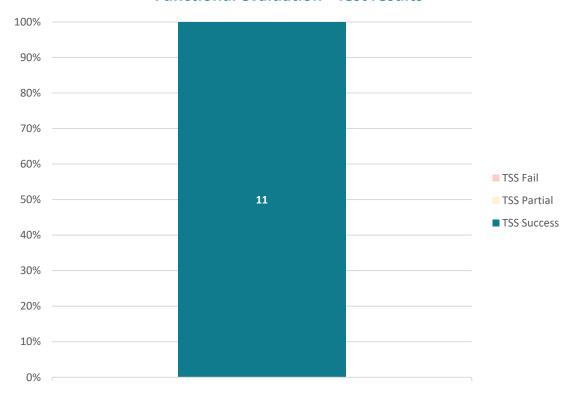


Figure 3.206: Eco-design module -Visual results of the functional evaluation for user WALTERPACK - Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.207: Eco-design module -Tabular results of the functional evaluation for user WALTERPACK - Homepage

Concerning the details page, instead the test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis. A minor remark is provided regarding the exported data sheet indicating a mis formatting of some cells.



TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet Test Case References Test Case ID (CWP_ECO_UT_03) Components involved TREASURE Circularity Web Platform Laura del Hoyo (WALTER PACK) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard Access the TREASURE Circularity Web Platform. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section. 6. Click the "Details" button above the corresponding chart. 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct 8. Export the detailed information in Excel format. NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) Navigate to the "Plastic characterization" section (CWP_ECO_UT_04) **Expected Results** Passed Remarks Access to the Circularity Web Platform YES earch for "combimeter" car part ist of relevant car parts shows up YES elect component to visualize lick the "OPEN ECO" button in YES YES Modules selection page is shown for the selected componer te to the "By weight" sub-section of the Top 5 metals" section and has a "Details" button above the corresponding stacked bar YES Press the "Details" button above the Metals by weight" page is correctly shown YES rresponding stacked bar chart etals table correctly displays all the relevant information YES elect a filtering method from the dropdown me ext to "Assess" Metals table correctly displays all the relevant information accounting for the user selection Metals table correctly displays all the relevant information for the selected filtering methods Assess the "Metals by weight" table Hover the mouse over the info icon next to the A tooltip explaining the table column title meaning appear "Share over the total weight", "Supply risk" and "SMI" table column titles YES ress the "Export" button Data are exported successfully in ".xlsx" format, following the YES The cell format of the excel file is not in % applied filters

Figure 3.208: Eco-design module - Functional evaluation for user WALTERPACK - Details page



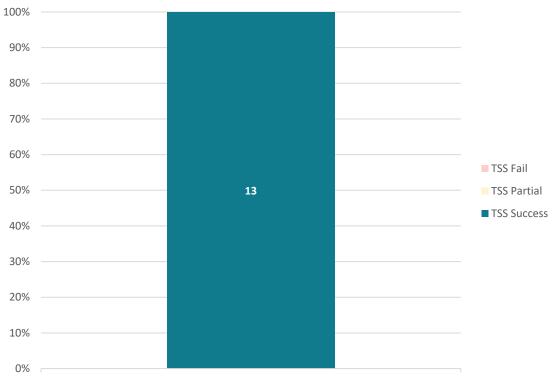


Figure 3.209: Eco-design module -Visual results of the functional evaluation for user WALTERPACK - Details page

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 13 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.210: Eco-design module -Tabular results of the functional evaluation for user WALTERPACK - Details page

If we consider both tests performed on the Eco-design module, the outcomes are satisfactory since no TSS Fail have been registered and all results are TSS Success.

3.3.7.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circularity Web Platform was carried out considering not only the main page of the platform but also the detail pages (for both metals and plastics) that provides additional information on materials composition, origin and more.

The testing tasks concerned the log in phase, and the assessment of the different sections dedicated to metals and plastics characterization, as well as disassemblability metrics and ecodesign recommendations.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by all other dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.9 | | | | |

Figure 3.211: Eco-design module – Tabular results of the non-functional assessment for user WALTERPACK -Homepage

Non-functional evaluation - Test results

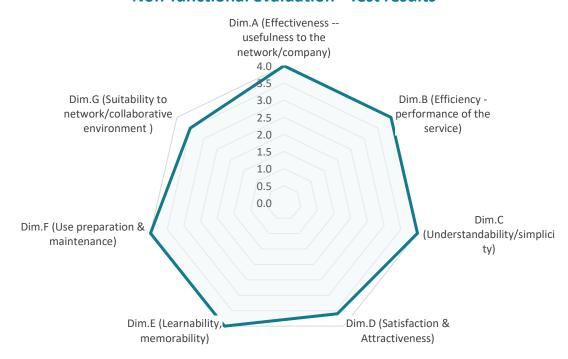


Figure 3.212: Eco-design module – Visual results of the non-functional assessment for user WALTERPACK -Homepage

If we consider the non-functional evaluation of the details page full score has been achieved by simplicity and maintenance, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.

| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | |
| | Total | | | | |
| | 3.8 | | | | |

Figure 3.213: Eco-design module – Tabular results of the non-functional assessment for user WALTERPACK - Details page



Dim.A (Effectiveness -usefulness to the network/company) 4.0 Dim.G (Suitability to Dim.B (Efficiency -3.0 network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance) ty) Dim.E (Learnability, Dim.D (Satisfaction & memorability) Attractiveness)

Non-functional evaluation - Test results

Figure 3.214: Eco-design module – Tabular results of the non-functional assessment for user WALTERPACK - Details page

3.3.8 Overall results

3.3.8.1 Functional evaluation

The functional evaluation for the Eco-design module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 166, the total number of TSS partial is 2 and the total number of TSS fail is 0.

| Eco-design Module - Overall Results Assessment Functional Dimension | |
|---|-------------|
| | TSS Results |
| TSS Success | 166 |
| TSS Partial | 2 |
| TSS Fail | 0 |

Figure 3.215-Eco-design Module - Functional evaluation overall results assessment

The only two attention points for this module have been raised by UNIVAQ:

 In the home page of the Eco-design dashboard, concerning the "Top 5 metals" section and, in particular, to the "Top 5 metals by weight" and "Top 5 metals by thermodynamic rarity" stacked bar charts. The remark suggests improving the



- graphical representation of metals that are present in small quantities, as the label for such metals is displayed with a too small size.
- In the details page of the Eco-design dashboard, concerning the information exported in excel format, some fields contain names that are too long and some measurement units, although being present in the platform dashboard, are reported as missing in the exported sheet.

3.3.8.2 Non-functional evaluation

The non-functional evaluation for the Eco-design module has an overall satisfactory outcome.

| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.6 | | | |
| | Total | | | |
| | 3.8 | | | |

Figure 3.216: Eco-design Module - Non-functional evaluation overall results assessment

3.4 Circular Advisory Tool

The Circular Al-based advisory tool comprises three modules, similarly to the Circularity Web Platform:

- Disassemblability Advisory Module: provides an assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.
- Recyclability Advisory Module: provides a ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.
- Eco-design Advisory Module: defines the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

The functional and non-functional evaluation process has been performed on all three modules individually and the assessment results are reported in the following sections.

3.4.1 Disassemblability Advisory Module

The Disassemblability Advisory Module: provides an assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

The advisory user with visualization mode for the Circular Advisory dashboards: this
user can access the three advisory dashboards (Disassemblability Advisory dashboard,
Recyclability Advisory dashboard and Eco-design advisory dashboard), as well as the



necessary in-between pages necessary for him/her to navigate the platform in a coherent way. No access to the regular platform dashboards is foreseen for this type of user.

3.4.1.1 Evaluation tester #1 (EUROLCDS)

3.4.1.1.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

| Test Case Referen | nas | | | | | | | |
|---|---|---|------------------|-------------------|--|---------------------|---------|--------------|
| rest case Referen | Les | | | | | | | |
| Test Case ID | CWP_DIS_ADV_UT_01 | | Componer | nts involved | TREASURE Circularity Web Platform | | | Web Platform |
| Actors involved | EuroLCDs | | Conta | ct Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize advisory infor | rmation about a ca | ar part in the D | isassembly Ad | visory Dashboar | d | | |
| Test Script | | | | | | | | |
| Click the "OPEN DIS" button in the "Disassembly Module" card. Click the "Dis advisory" link on the top navbar. Assess that every information expected is correctly reported in its dedicated card and is displayed in the a | | | | | | ppropriate fo | | |
| TSS | 11 | TSS _{partial} 0 | | | | TSS _{fail} | 0 | |
| unctionalities | Nob Dietform | Expected Results Circularity Web Platform shows login page | | | | Passed YES | Remarks | |
| Access to the Circularity Web Platform Login to the Platform | | User successfully logged in | | | YES | | | |
| User redirected to home page | | Home page correctly opened | | | YES | | | |
| Search for "combimeter" car part | | List of relevant car parts shows up | | | YES | | | |
| elect component to visu | | Modules selection page is shown for the selected component | | | YES | | | |
| lick the "OPEN DIS" button in the Disassembly dashboard is shown for the selected component Disassemblability Module" card | | ed component | YES | | | | | |
| Click the "Dis advisory" link on the top navbar. | | Disassembly advisor dashboard correctly opened | | | YES | | | |
| Assess "Electrical and electronic equipment" sub section of the "Metals to be extracted" section | | All relevant information for the desired sub-section is displayed | | | YES | | | |
| Assess time and cost metrics below the metals table | | All relevant information for the desired sub-section is displayed | | | YES | | | |
| Adjust the "Disassembly cost per hour" value The "Es | | The "Estimated disassembly cost" metric is adjusted accordingly | | | YES | | | |
| | ss "Thermodynamic rarity VS Revenue" sub All relevant information for the desired sub-section is displayed on of the "Metals to be extracted" section | | YES | | | | | |
| | | | | | | 1123 | | |
| | nic rarity value limit" and | The lower limits f | for the "Thermo | dynamic rarity in | ndicator" and | YES | | |

Figure 3.217: Disassemblability advisory module - Functional evaluation for user EUROLCDS - Homepage



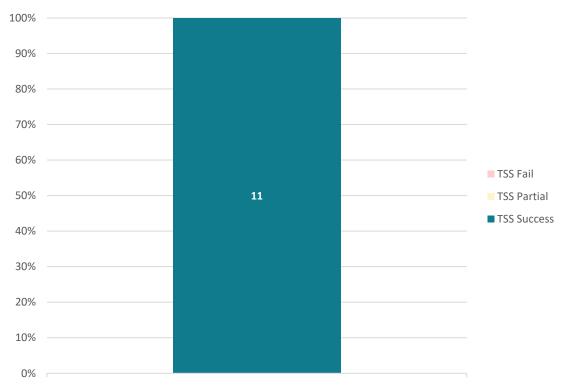


Figure 3.218: Disassemblability advisory module -Visual results of the functional evaluation for user EUROLCDS -Homepage

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.219: Disassemblability advisory module -Tabular results of the functional evaluation for user EUROLCDS -Homepage

3.4.1.1.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by simplicity and maintenance, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | |
| | Total | | | |
| | 3.9 | | | |

Figure 3.220: Disassemblability advisory module -Tabular results of the non-functional evaluation for user EUROLCDS
- Homepage

Non-functional evaluation - Test results

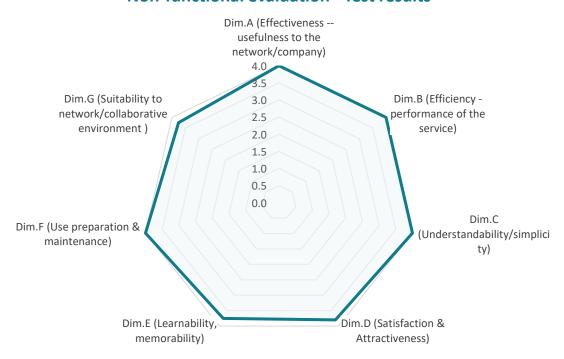


Figure 3.221: Disassemblability advisory module -Visual results of the non-functional evaluation for user EUROLCDS -Homepage

3.4.1.2 Evaluation tester #2 (ILSSA)

3.4.1.2.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

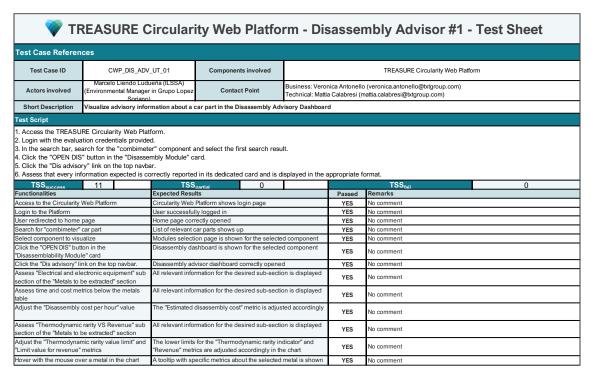


Figure 3.222: Disassemblability advisory module - Functional evaluation for user ILSSA - Homepage



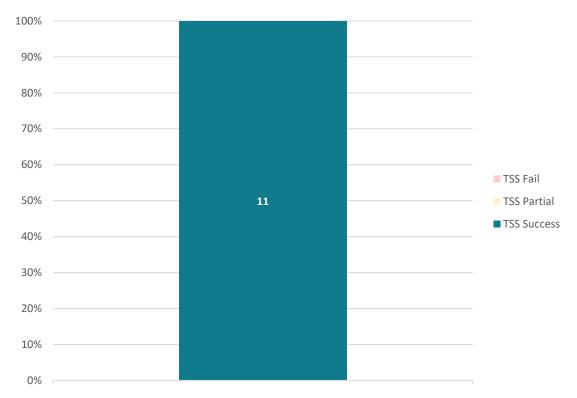


Figure 3.223: Disassemblability advisory module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 11 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.224: Disassemblability advisory module -Tabular results of the functional evaluation for user ILSSA — Homepage

3.4.1.2.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by simplicity and memorability, while a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.5 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.7 |

Figure 3.225: Disassemblability advisory module -Tabular results of the non-functional evaluation for user ILSSA - Homepage

Non-functional evaluation - Test results

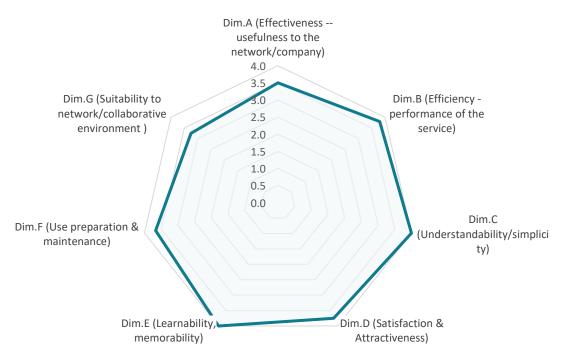


Figure 3.226: Disassemblability advisory module -Tabular results of the non-functional evaluation for user ILSSA -Homepage

3.4.1.3 Evaluation tester #3 (POLLINI)

3.4.1.3.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

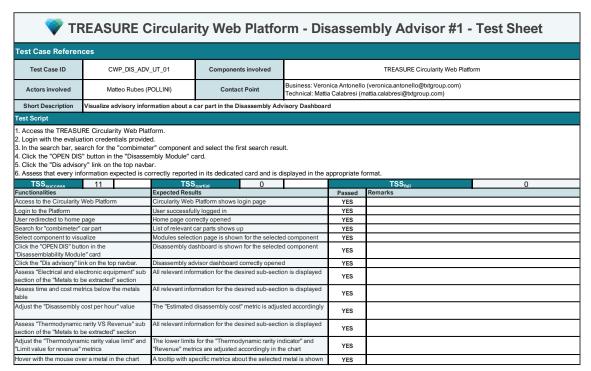


Figure 3.227: Disassemblability advisory module - Functional evaluation for user POLLINI - Homepage



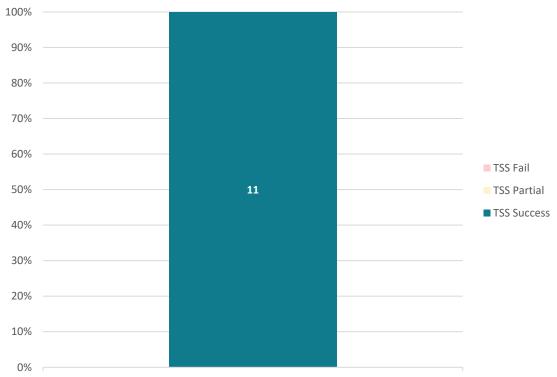


Figure 3.228: Disassemblability advisory module -Visual results of the functional evaluation for user POLLINI -Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 11 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.229: Disassemblability advisory module -Tabular results of the functional evaluation for user POLLINI -Homepage

3.4.1.3.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.230: Disassemblability advisory module -Tabular results of the non-functional evaluation for user POLLINI -Homepage

Non-functional evaluation - Test results

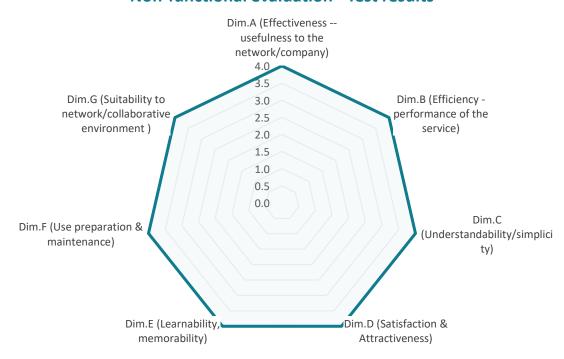


Figure 3.231: Disassemblability advisory module -Visual results of the non-functional evaluation for user POLLINI -Homepage

3.4.1.4 Evaluation tester #4 (SEAT)

3.4.1.4.1 Evaluation user #1

3.4.1.4.1.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with only a minor remark on the usability of the input field for the thermodynamic rarity and revenue parameters.

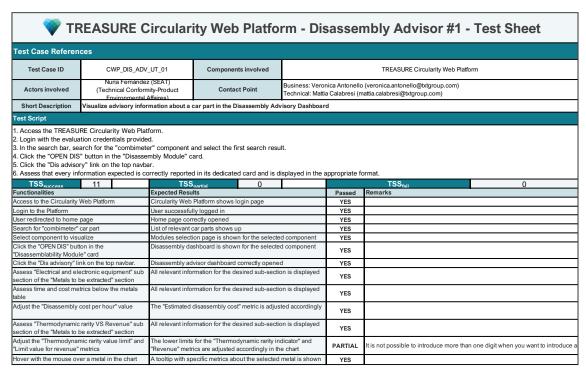


Figure 3.232: Disassemblability advisory module - Functional evaluation for user SEAT (tester #1) - Homepage



100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0%

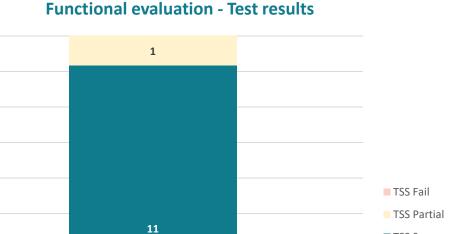


Figure 3.233: Disassemblability advisory module -Visual results of the functional evaluation for user SEAT (tester #2)
- Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 11 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.234: Disassemblability advisory module -Tabular results of the functional evaluation for user SEAT (tester #1) - Homepage

3.4.1.4.1.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable score has been achieved by many dimension while attention is needed on user preparation.

■ TSS Success



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 2.3 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 2.3 |
| Dim.D (Satisfaction & Attractiveness) | 2.2 |
| Dim.E (Learnability, memorability) | 2.5 |
| Dim.F (Use preparation & maintenance) | 2.0 |
| Dim.G (Suitability to network/collaborative environment) | 2.3 |
| | Total |
| | 2.5 |

Figure 3.235: Disassemblability advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #1) - Homepage

Non-functional evaluation - Test results

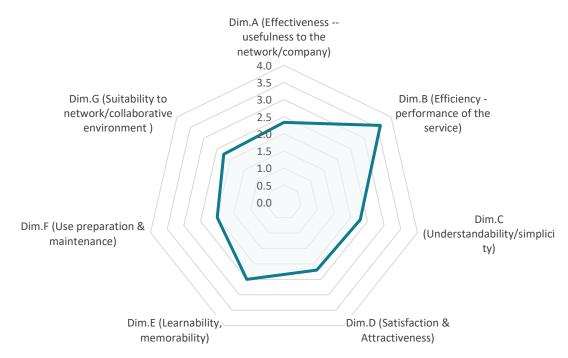


Figure 3.236: Disassemblability advisory module -Visual results of the non-functional evaluation for user SEAT (tester #1) - Homepage

3.4.1.4.2 Evaluation user #2

3.4.1.4.2.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with only a minor remark on the usability of the input field for the thermodynamic rarity parameter.

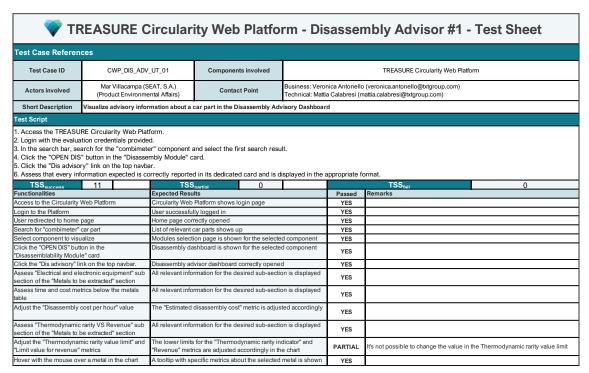


Figure 3.237: Disassemblability advisory module - Functional evaluation for user SEAT (tester #2) - Homepage

The evaluation shows no TSS fail, with only one TSS partial as described above, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

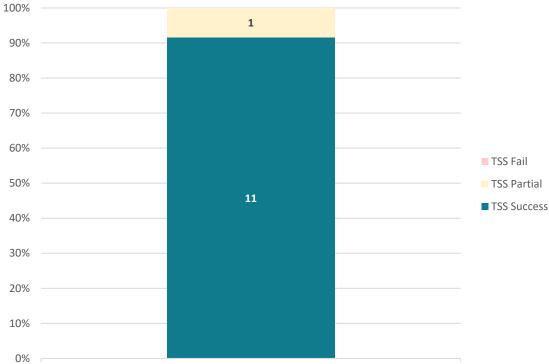


Figure 3.238: Disassemblability advisory module -Visual results of the functional evaluation for user SEAT (tester #2)
- Homepage

| Results Assessment | | | | | | |
|----------------------|----|--|--|--|--|--|
| Functional Dimension | | | | | | |
| TSS Results | | | | | | |
| TSS Success | 11 | | | | | |
| TSS Partial | 0 | | | | | |
| TSS Fail | 0 | | | | | |

Figure 3.239: Disassemblability advisory module -Tabular results of the functional evaluation for user SEAT (teste r#2) - Homepage

3.4.1.4.2.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable score has been achieved by many dimensions while attention is needed on simplicity.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.3 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 2.3 | | | |
| Dim.D (Satisfaction & Attractiveness) | 2.6 | | | |
| Dim.E (Learnability, memorability) | 2.3 | | | |
| Dim.F (Use preparation & maintenance) | 2.6 | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.5 | | | |
| | Total | | | |
| | 2.6 | | | |

Figure 3.240: Disassemblability advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #2) - Homepage

Non-functional evaluation - Test results

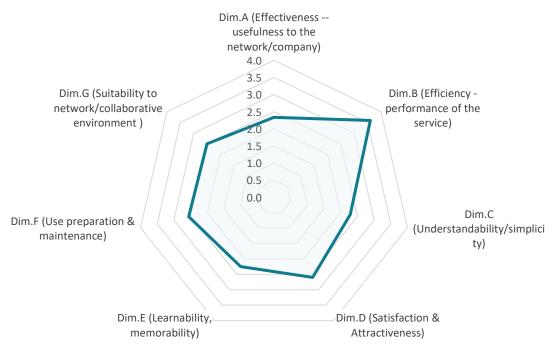


Figure 3.241: Disassemblability advisory module -Visual results of the non-functional evaluation for user SEAT (tester #2) - Homepage

3.4.1.5 Evaluation tester #5 (TNO)

3.4.1.5.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.



The test sheet below shows all tests have passed successfully, with two partial remarks on the behavior of the input filed for the "estimated disassembly cost", "thermodynamic rarity indicator" and "revenue" metrics.

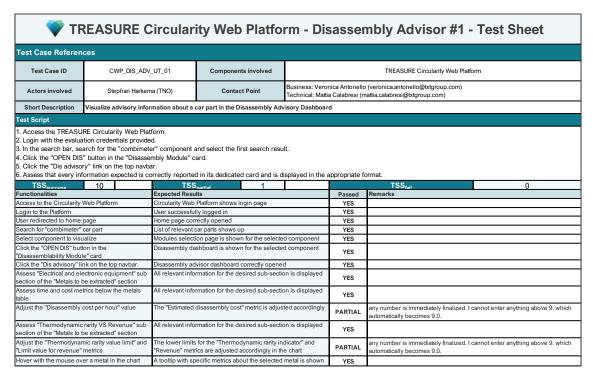
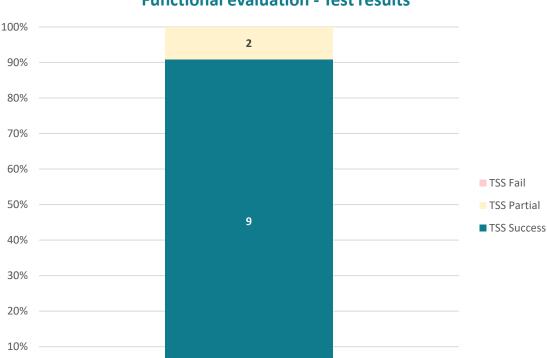


Figure 3.242: Disassemblability advisory module - Functional evaluation for user TNO - Homepage

The evaluation shows no TSS fail, with only two TSS partial related to the input field for disassembly cost and thermodynamic rarity, granting a satisfactory score overall, as visible in the figure below.





Functional evaluation - Test results

Figure 3.243: Disassemblability advisory module -Visual results of the functional evaluation for user TNO -Homepage

| Results Assessment | | | | | | |
|----------------------|----|--|--|--|--|--|
| Functional Dimension | | | | | | |
| TSS Results | | | | | | |
| TSS Success | 10 | | | | | |
| TSS Partial | 1 | | | | | |
| TSS Fail | 0 | | | | | |

Figure 3.244: Disassemblability advisory module -Tabular results of the functional evaluation for user TNO -Homepage

3.4.1.5.2 Non-functional Evaluation

0%

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.2 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.8 | | | |

Figure 3.245: Disassemblability advisory module -Tabular results of the non-functional evaluation for user TNO - Homepage

Non-functional evaluation - Test results

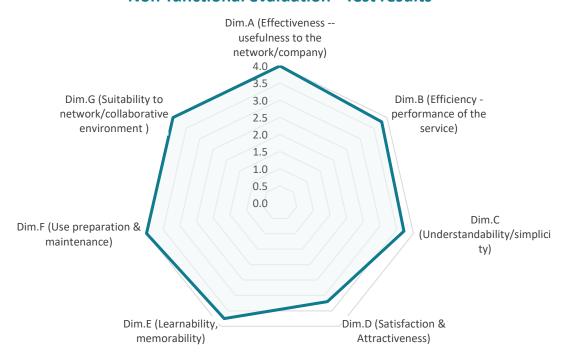


Figure 3.246: Disassemblability advisory module -Visual results of the non-functional evaluation for user TNO -Homepage

3.4.1.6 Evaluation tester #6 (UNIVAQ)

3.4.1.6.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.



The test sheet below shows all tests have passed successfully, with a partial remark on the clarity of the instructions to adjust the thermodynamic rarity and revenue indicators.

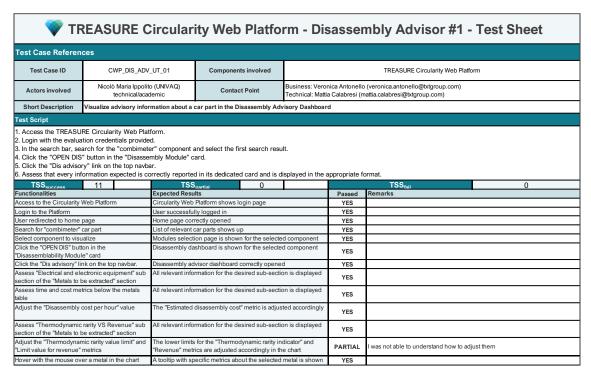


Figure 3.247: Disassemblability advisory module - Functional evaluation for user UNIVAQ - Homepage

The evaluation shows no TSS fail, with only one TSS partial as reported above, granting a satisfactory score overall, as visible in the figure below.



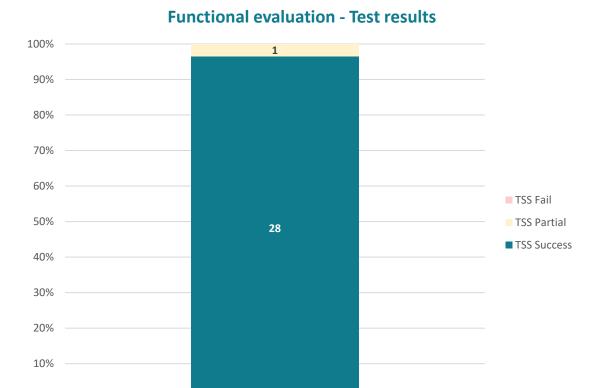


Figure 3.248: Disassemblability advisory module -Visual results of the functional evaluation for user UNIVAQ -Homepage

| Results Assessment | | | | | |
|----------------------|----|--|--|--|--|
| Functional Dimension | | | | | |
| TSS Results | | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | | | | | |
| TSS Fail | 0 | | | | |

Figure 3.249: Disassemblability advisory module -Tabular results of the functional evaluation for user UNIVAQ -Homepage

3.4.1.6.2 Non-functional Evaluation

0%

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | |
| Dim.F (Use preparation & maintenance) | 3.6 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.6 | | | |

Figure 3.250: Disassemblability advisory module -Tabular results of the non-functional evaluation for user UNIVAQ -Homepage

Non-functional evaluation - Test results

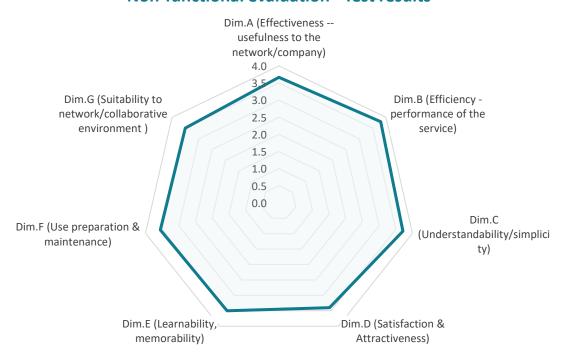


Figure 3.251: Disassemblability advisory module -Visual results of the non-functional evaluation for user UNIVAQ -Homepage

3.4.1.7 Evaluation tester #7 (WALTERPACK)

3.4.1.7.1 Functional Evaluation

The functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.



The test sheet below shows all tests have passed successfully, with a partial remark on the lack of animations when interacting with the rarity vs revenue chart.

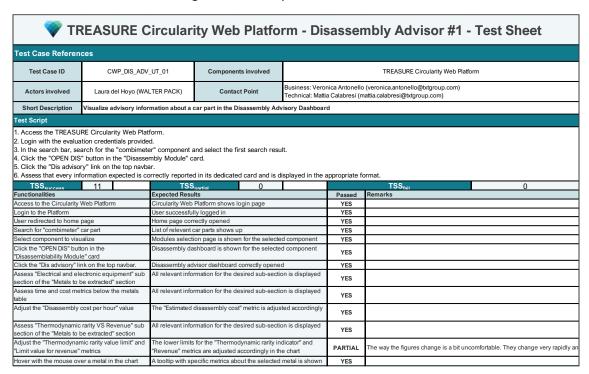


Figure 3.252: Disassemblability advisory module - Functional evaluation for user WALTERPACK - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

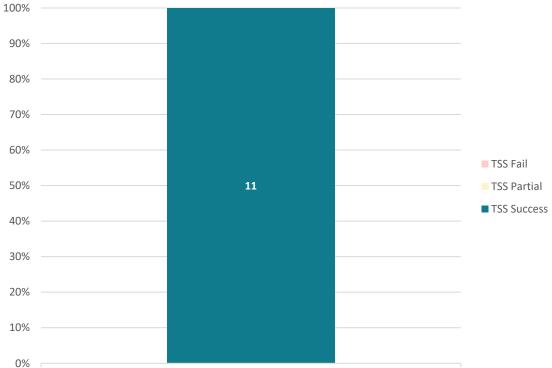


Figure 3.253: Disassemblability advisory module -Visual results of the functional evaluation for user WALTERPACK -Homepage

| Results Assessment | | | | | |
|----------------------|----|--|--|--|--|
| Functional Dimension | | | | | |
| TSS Results | | | | | |
| TSS Success | 11 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.254: Disassemblability advisory module -Tabular results of the functional evaluation for user WALTERPACK -Homepage

3.4.1.7.2 Non-functional Evaluation

The non-functional evaluation of the Disassemblability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the valuable metals present in the selected car part/component, as well as thermodynamical and economic analysis on top.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by learnability, while a reasonable score has been achieved by the rest of the dimensions. Attention is needed on satisfaction.



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | |
| Dim.D (Satisfaction & Attractiveness) | 2.2 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.4 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.5 | | | |

Figure 3.255: Disassemblability advisory module -Tabular results of the non-functional evaluation for user WALTERPACK - Homepage

Non-functional evaluation - Test results

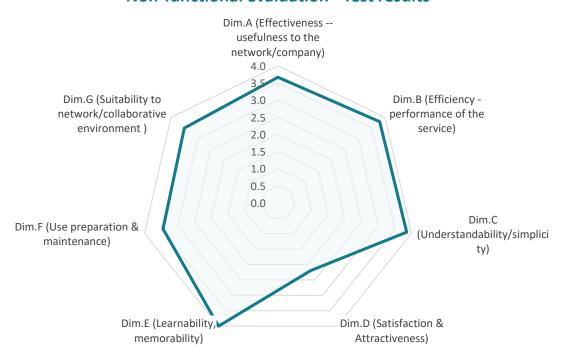


Figure 3.256: Disassemblability advisory module -Visual results of the non-functional evaluation for user WALTERPACK – Homepage

3.4.1.8 Overall results

3.4.1.8.1 Functional evaluation

The functional evaluation for the Disassemblability Advisory module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 103, the total number of TSS partial is 5 and the total number of TSS fail is 0.



| Disassemblability Advisory Module - Overall Results Assessment | | | | | |
|--|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 103 | | | | |
| TSS Partial | | | | | |
| TSS Fail | 0 | | | | |

Figure 3.257 – Disassemblability Module - Functional evaluation overall results assessment

The five attention points for this module have been raised by SEAT, TNO and UNIVAQ:

- From SEAT, in the home page of the Disassemblability advisory dashboard, a comment
 has been made (from both test users) for the "Thermodynamic rarity value limit" and
 the "Limit value for revenue" input fields in the "Thermodynamic rarity vs revenue"
 section and concerns the inability from the user of inserting more than one decimal
 place in the input fields.
- From TNO, in the home page of the Disassemblability advisory dashboard, a comment
 has been made for the "Disassembly cost per hour" and "Thermodynamic rarity value
 limit" input fields concerning some issues when inserting numeric values in the input
 fields.
- From UNIVAQ, in the home page of the Disassemblability advisory dashboard, a
 comment has been made for the "Thermodynamic rarity value limit" input field,
 concerning the inability to understand how to adjust the limit in order for it to be
 reflected in the side chart.

3.4.1.8.2 Non-functional evaluation

The non-functional evaluation for the Disassemblability Advisory module has an overall satisfactory outcome.

| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.4 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.5 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.1 | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | |
| Dim.F (Use preparation & maintenance) | 3.4 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.4 | | | |

Figure 3.258: Disassemblability Advisory Module - Non-functional evaluation overall results assessment

3.4.2 Recyclability Advisory Module

The Recyclability Advisory Module: provides a ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

• The advisory user with visualization mode for the Circular Advisory dashboards: this user can access the three advisory dashboards (Disassemblability Advisory dashboard,



Recyclability Advisory dashboard and Eco-design advisory dashboard), as well as the necessary in-between pages necessary for him/her to navigate the platform in a coherent way. No access to the regular platform dashboards is foreseen for this type of user.

3.4.2.1 Evaluation tester #1 (EUROLCDS)

3.4.2.1.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

| | | | -, | | | oy olai | oility Advisor #1 - | 1001 011001 |
|--|---|--|---|--------------------|--|-----------------------------------|--------------------------------|-------------|
| est Case Referen | ces | | | | | | | |
| Test Case ID | CWP_REC_ADV | _UT_01 | Components involv | omponents involved | | TREASURE Circularity Web Platform | | |
| Actors involved | EuroLCDs | | Contact Point | | Business: Veronica Antonello (veronica antonello@bttgroup.com) Technical: Mattia Calabresi (mattia.calabresi@bttgroup.com) | | | |
| Short Description | Visualize advisory infor | mation about a ca | ar part in the Recyclabi | ility Adviso | ory Dashboard | 1 | | |
| est Script | | | | | | | | |
| . In the search bar, se . Click the "OPEN REG . Click the "Rec advisor . Assess that every into | arch for the "combimete c" button in the "Recycle ory" link on the top navb formation expected is co | er" component ar ability Module" ca ar. orrectly reported | ard. in its dedicated card a | and is displ | layed in the a | ppropriate fo | | |
| TSS _{success} | 15 | TSS _n Expected Result | |) | | Passed | TSS _{fail} Remarks | 0 |
| ccess to the Circularity | Web Platform | | s latform shows login pag | 10 | | YES | Remarks | |
| gin to the Platform | Trob i iddoiiii | User successfully | 0 1 0 | ,,, | | YES | | |
| ser redirected to home | nage | Home page correctly opened | | | YES | | | |
| earch for "combimeter" | | List of relevant car parts shows up | | | | YES | | |
| elect component to visu | | | n page is shown for the | selected o | omponent | YES | | |
| lick the "OPEN REC" bu | tton in the "Recyclability | | nboard is shown for the | | | YES | | |
| lick the "Rec advisory" I | ink on the top navbar. | Recyclability advi | sor dashboard correctly | opened | | YES | | |
| ssess the recycling route table in the "Determine All relevant information for the desired table is displayed which combination of disassembly path and eycycling process to implement (from component material)" section | | | ayed | YES | | | | |
| ress the info button at thoute | ne right of one recycling | The "DIS & REC r | oute X" popup appears | | | YES | | |
| ssess the materials in thable | ne "DIS & REC route X" | All relevant inform | nation for the desired tal | ble is displa | ayed | YES | | |
| ssess the revenue indic | sess the revenue indicator All relevan | | All relevant information for the desired section is displayed | | | | | |
| ljust the "Total cost" value Th | | The "Profit" indicator updates accordingly | | | YES | | | |
| ress the "Close" ("X") bi | utton | The "DIS & REC route X" popup closes | | | | YES | | |
| ssess the "Graphical int | egration approach" sub- | All relevant inform | nation for the desired se | ection is dis | splayed | YES | | |
| ection | | | | | | | | |

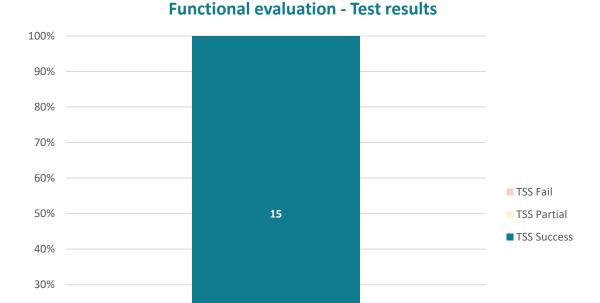
Figure 3.259: Recyclability advisory module - Functional evaluation for user EUROLCDS - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



20%

10%



0%

Figure 3.260: Recyclability advisory module -Visual results of the functional evaluation for user EUROLCDS -

Homepage

| Results Assessment | | | | | |
|----------------------|----|--|--|--|--|
| Functional Dimension | | | | | |
| TSS Results | | | | | |
| TSS Success | 15 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |

Figure 3.261: Recyclability advisory module -Tabular results of the functional evaluation for user EUROLCDS -Homepage

3.4.2.1.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.262: Recyclability advisory module -Tabular results of the non-functional evaluation for user EUROLCDS -Homepage

Non-functional evaluation - Test results

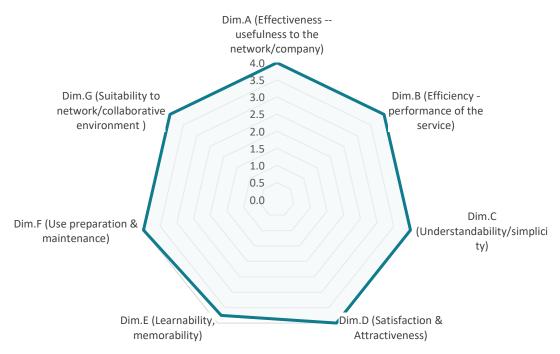


Figure 3.263: Recyclability advisory module -Visual results of the non-functional evaluation for user EUROLCDS - Homepage

3.4.2.2 Evaluation tester #2 (ILSSA)

3.4.2.2.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

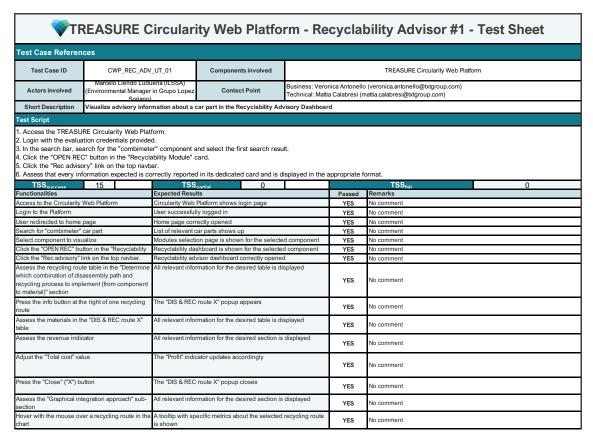


Figure 3.264: Recyclability advisory module - Functional evaluation for user ILSSA - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.





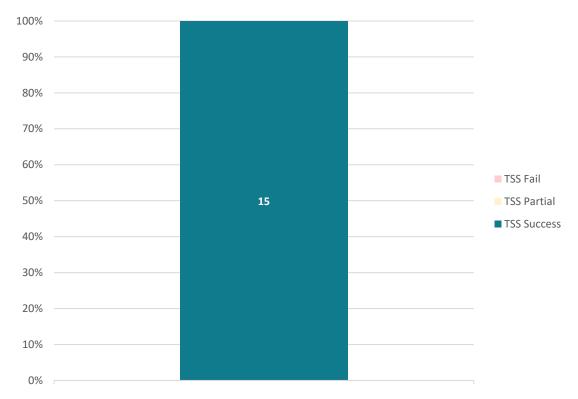


Figure 3.265: Recyclability advisory module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 15 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.266: Recyclability advisory module -Tabular results of the functional evaluation for user ILSSA - Homepage

3.4.2.2.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a high score has been achieved by many dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.8 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.7 |

Figure 3.267: Recyclability advisory module -Tabular results of the non-functional evaluation for user ILSSA -Homepage

Non-functional evaluation - Test results

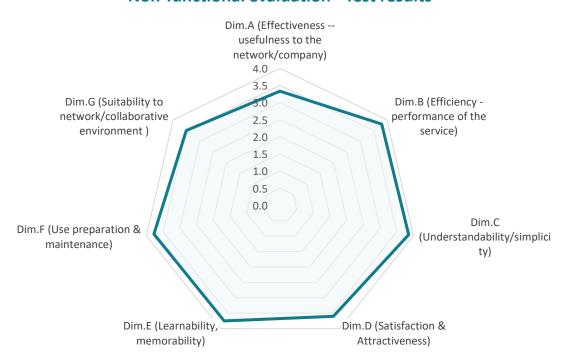


Figure 3.268: Recyclability advisory module -Visual results of the non-functional evaluation for user ILSSA -Homepage

3.4.2.3 Evaluation tester #3 (POLLINI)

3.4.2.3.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

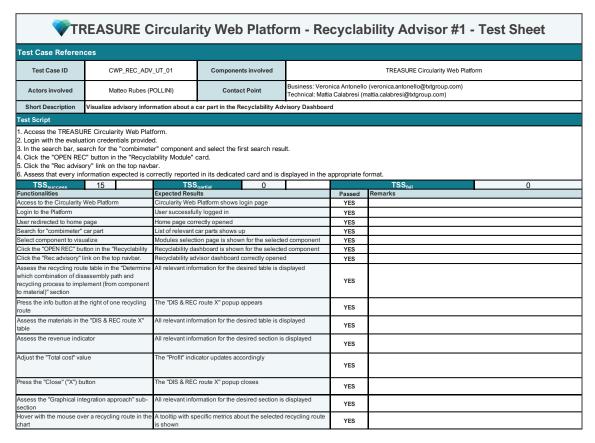


Figure 3.269: Recyclability advisory module - Functional evaluation for user POLLINI - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

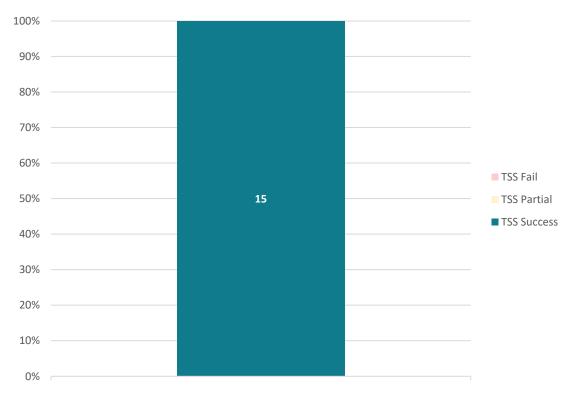


Figure 3.270: Recyclability advisory module -Visual results of the functional evaluation for user POLLINI - Homepage

| Results Assessment Functional Dimension | |
|---|-------------|
| | TSS Results |
| TSS Success | 15 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.271: Recyclability advisory module -Tabular results of the functional evaluation for user POLLINI -Homepage

3.4.2.3.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.272: Recyclability advisory module -Tabular results of the non-functional evaluation for user POLLINI -Homepage

Non-functional evaluation - Test results

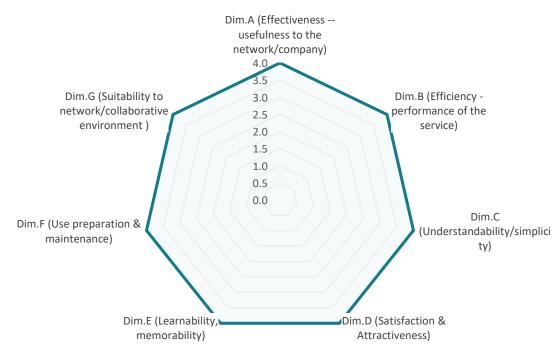


Figure 3.273: Recyclability advisory module -Visual results of the non-functional evaluation for user POLLINI -Homepage

3.4.2.4 Evaluation tester #4 (SEAT)

3.4.2.4.1 Evaluation user #1

3.4.2.4.1.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

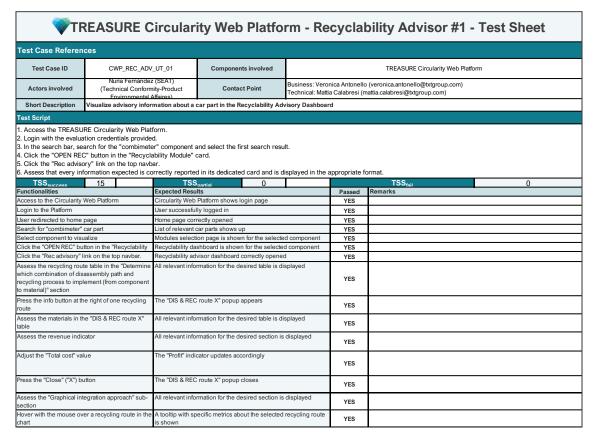


Figure 3.274: Recyclability advisory module - Functional evaluation for user SEAT (tester #1) - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

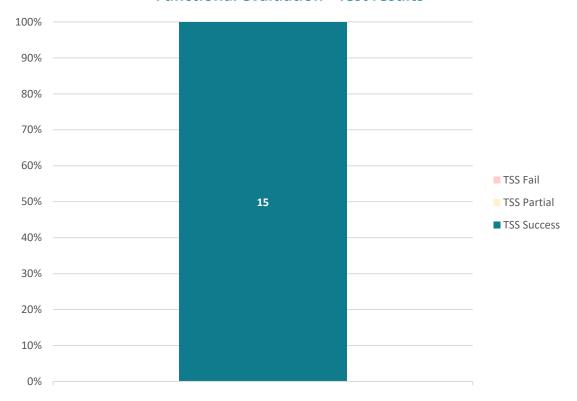


Figure 3.275: Recyclability advisory module -Visual results of the functional evaluation for user SEAT (tester #1) Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 15 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.276: Recyclability advisory module -Visual results of the functional evaluation for user SEAT (tester #2) Homepage

3.4.2.4.1.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage reasonable score has been achieved by many dimensions, while attention is needed on learnability.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.0 |
| Dim.C (Understandability/simplicity) | 2.3 |
| Dim.D (Satisfaction & Attractiveness) | 2.6 |
| Dim.E (Learnability, memorability) | 2.0 |
| Dim.F (Use preparation & maintenance) | 2.1 |
| Dim.G (Suitability to network/collaborative environment) | 2.3 |
| | Total |
| | 2.5 |

Figure 3.277: Recyclability advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #1) - Homepage

Non-functional evaluation - Test results

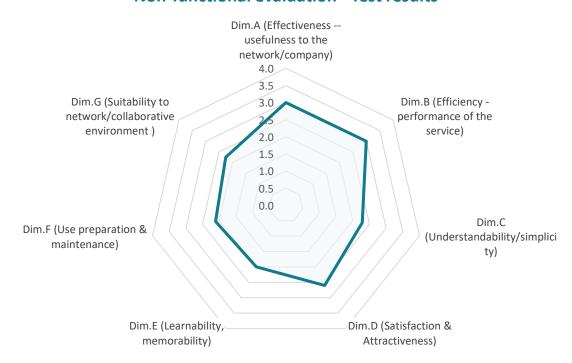


Figure 3.278: Recyclability advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #1) - Homepage

3.4.2.4.2 Evaluation user #2

3.4.2.4.2.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

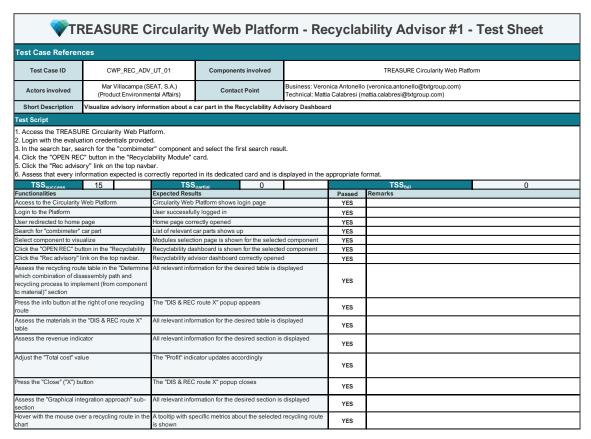


Figure 3.279: Recyclability advisory module - Functional evaluation for user SEAT (tester #2) - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

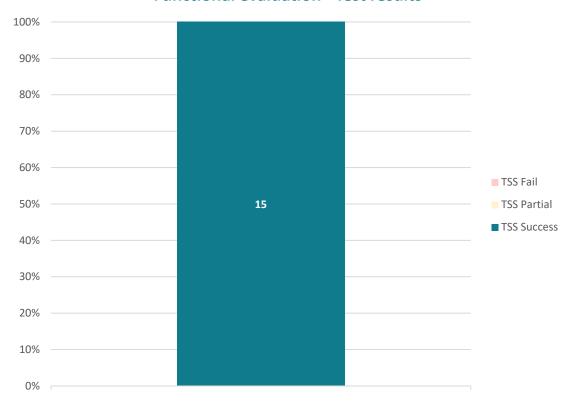


Figure 3.280: Recyclability advisory module -Visual results of the functional evaluation for user SEAT (tester #2) Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 15 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.281: Recyclability advisory module -Tabular results of the functional evaluation for user SEAT (tester #2) - Homepage

3.4.2.4.2.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable score has been achieved by many dimensions, while attention is needed by simplicity.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 2.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 2.0 |
| Dim.D (Satisfaction & Attractiveness) | 2.4 |
| Dim.E (Learnability, memorability) | 2.0 |
| Dim.F (Use preparation & maintenance) | 2.4 |
| Dim.G (Suitability to network/collaborative environment) | 2.3 |
| | Total |
| | 2.4 |

Figure 3.282: Recyclability advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #2) - Homepage

Non-functional evaluation - Test results

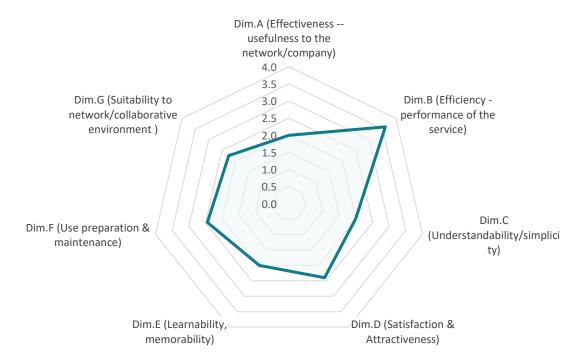


Figure 3.283: Recyclability advisory module -Visual results of the non-functional evaluation for user SEAT (tester #2) - Homepage

3.4.2.5 Evaluation tester #5 (TNO)

3.4.2.5.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with only a partial remark concerning the cutting of a chart and the indication that the documentation to support total cost and recycling routes risks can be improved with more meaningful messages.

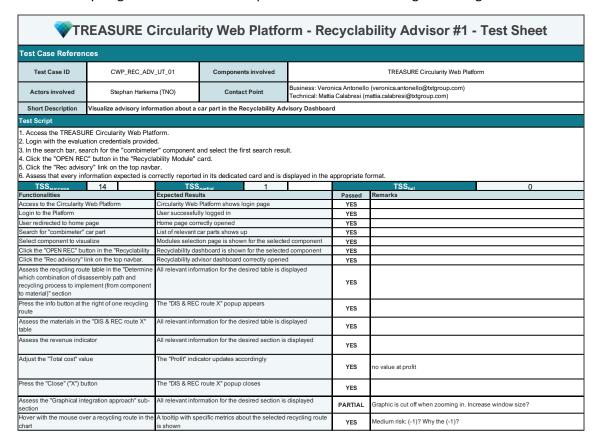


Figure 3.284: Recyclability advisory module - Functional evaluation for user TNO - Homepage

The evaluation shows no TSS fail, with only one TSS partial related to the way the chart is displayed as reported above, granting a satisfactory score overall, as visible in the figure below.





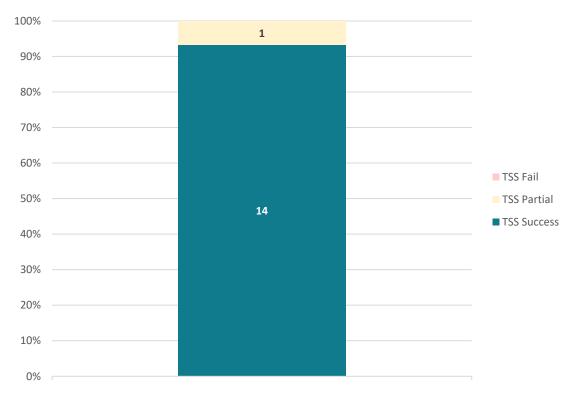


Figure 3.285: Recyclability advisory module -Visual results of the functional evaluation for user TNO - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 14 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.286: Recyclability advisory module -Tabular results of the functional evaluation for user TNO - Homepage

3.4.2.5.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.287: Recyclability advisory module -Tabular results of the non-functional evaluation for user TNO -Homepage

Non-functional evaluation - Test results

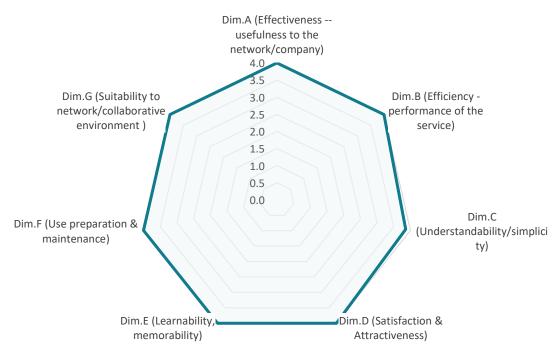


Figure 3.288: Recyclability advisory module -Visual results of the non-functional evaluation for user TNO - Homepage

3.4.2.6 Evaluation tester #6 (UNIVAQ)

3.4.2.6.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.



The test sheet below shows all tests have passed successfully, with only a minor remark concerning the lack of indication of the extraction method used in the assessment.

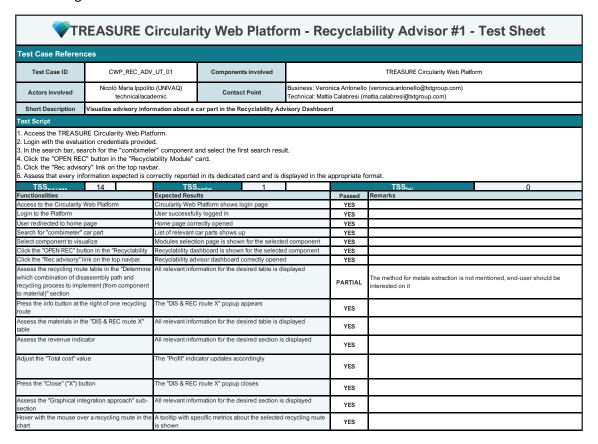
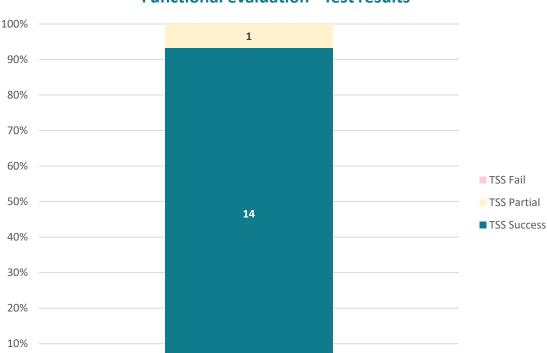


Figure 3.289: Recyclability advisory module - Functional evaluation for user UNIVAQ - Homepage

The evaluation shows no TSS fail, with only one TSS partial related to an unclear description in the recycling routes section as reported above, granting a satisfactory score overall, as visible in the figure below.





Functional evaluation - Test results

Figure 3.290: Recyclability advisory module -Visual results of the functional evaluation for user UNIVAQ - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 14 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.291: Recyclability advisory module -Tabular results of the functional evaluation for user UNIVAQ -Homepage

3.4.2.6.2 Non-functional Evaluation

0%

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by efficiency, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.2 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.4 |

Figure 3.292: Recyclability advisory module -Tabular results of the non-functional evaluation for user UNIVAQ -Homepage

Non-functional evaluation - Test results

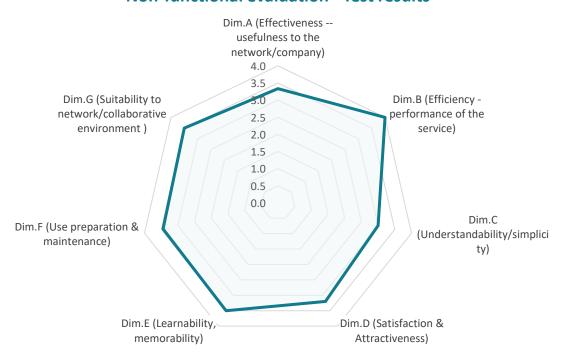


Figure 3.293: Recyclability advisory module -Visual results of the non-functional evaluation for user UNIVAQ -Homepage

3.4.2.7 Evaluation tester #7 (WALTERPACK)

3.4.2.7.1 Functional Evaluation

The functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

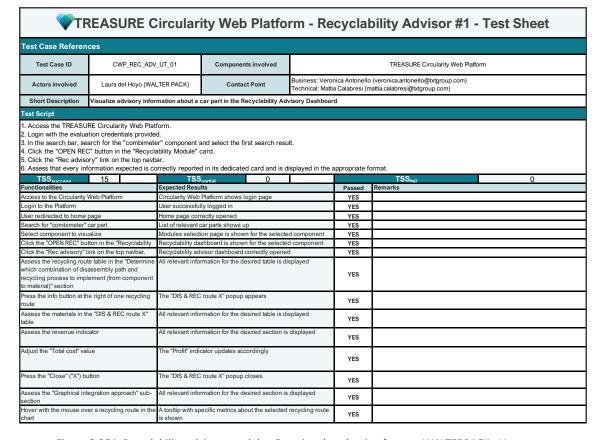


Figure 3.294: Recyclability advisory module - Functional evaluation for user WALTERPACK - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

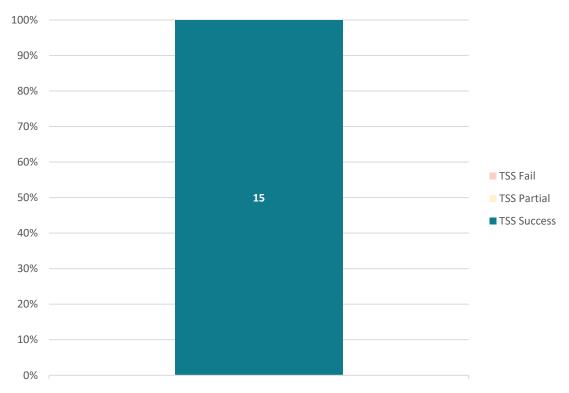


Figure 3.295: Recyclability advisory module -Visual results of the functional evaluation for user WALTERPACK -Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 15 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.296: Recyclability advisory module -Tabular results of the functional evaluation for user WALTERPACK -Homepage

3.4.2.7.2 Non-functional Evaluation

The non-functional evaluation of the Recyclability module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the ranking of most convenient recyclability routes starting from the analysis performed by the Recycling Simulation Tool and further complemented by a socio-economic impact assessment.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by effectiveness and learnability, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.8 |

Figure 3.297: Recyclability advisory module -Tabular results of the non-functional evaluation for user WALTERPACK -Homepage

Non-functional evaluation - Test results

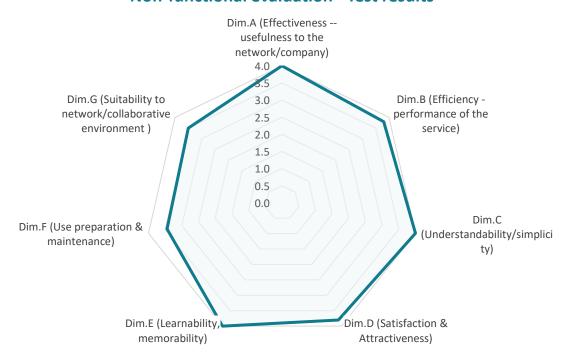


Figure 3.298: Recyclability advisory module -Visual results of the non-functional evaluation for user WALTERPACK — Homepage

3.4.2.8 Overall results

3.4.2.8.1 Functional evaluation

The functional evaluation for the Recyclability Advisory module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 118, the total number of TSS partial is 2 and the total number of TSS fail is 0.



| Recyclability Advisory Module - Overall Results Assessment | |
|--|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 118 |
| TSS Partial | 2 |
| TSS Fail | 0 |

Figure 3.299 - Recyclability Module - Functional evaluation overall results assessment

The two attention points for this module have been raised by TNO and UNIVAQ:

- From TNO, in the home page of the Recyclability advisory dashboard, a comment has been made for the "Graphical integration approach" 3D chart, concerning the fact that the chart gets cut off when zooming to closer inspect a recycling route.
- From UNIVAQ, in the home page of the Recyclability advisory dashboard, a comment
 has been made for the recycling routes table, concerning the lack of explanation on
 the extraction process performed in order to gain the metals, indicating that this
 process could be of interest by any dashboard user.

3.4.2.8.2 Non-functional evaluation

The non-functional evaluation for the Recyclability Advisory module has an overall satisfactory outcome.

| | Results |
|---|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.5 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.4 |
| Dim.D (Satisfaction & Attractiveness) | 3.5 |
| Dim.E (Learnability, memorability) | 3.4 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.4 |
| | Total |
| | 3.5 |

Figure 3.300: Recyclability Advisory Module - Non-functional evaluation overall results assessment

3.4.3 Eco-design Advisory Module

The Eco-design Advisory Module: defines the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

The tests have been carried out for each type of user foreseen in this platform module, as follows:

• The advisory user with visualization mode for the Circular Advisory dashboards: this user can access the three advisory dashboards (Disassemblability Advisory dashboard, Recyclability Advisory dashboard and Eco-design advisory dashboard), as well as the necessary in-between pages necessary for him/her to navigate the platform in a coherent way. No access to the regular platform dashboards is foreseen for this type of user.



3.4.3.1 Evaluation tester #1 (EUROLCDS)

3.4.3.1.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

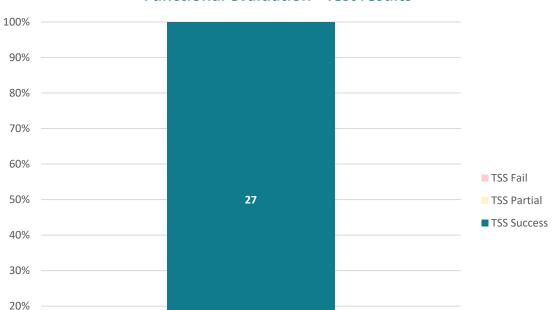


TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet **Test Case References** Test Case ID CWP ECO ADV UT 01 Components involved TREASURE Circularity Web Platform Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) Short Description Visualize advisory information about a car part in the Eco-Design Advisory Dashboard 1. Access the TREASURE Circularity Web Platform. 2. Login with the evaluation credentials provided. 3. In the search bar, search for the "combimeter" component and select the first search result. . Click the "OPEN ECO" button in the "Eco-Design Module" card. Click the "Eco advisory" link on the top navbar. 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. 27 Expected Results Passed Remarks gin to the Platform ser successfully logged in YES YES ist of relevant car parts shows up YES lick the "OPEN ECO" button in the "Eco-Design co-design dashboard is shown for the selected component YES Click the "Eco advisory" link on the top navbar. Eco-design advisor dashboard correctly opened YES ssess the "Feedback to improve design for isassembly and recycling" table in the "Step 1: All the relevant feedback is properly displayed for the desired YES reliminary analysis of the reference design" sub ction of the "Reference Design" section Assess the "Eco-design feedback" table in the Step 1: Preliminary analysis of the reference All the relevant feedback is properly displayed for the desired YES lesign" sub-section of the "Reference Design" lick the "Generate Guidelines" button in the "Generate guidelines" popup is shown Step 2: Generation of specific eco-design YES uidelines and prioritization" sub-section lover the mouse over the info icon next to the guideline ID A tooltip with the guideline name appears Click the info button next to the number of A popup with the list of feedbacks associated to "Guideline 10" sociated feedbacks for "Guideline 10" Press the "X" button The feedbacks popup closes YES The "Level of circularity improvement" indicator corresponding to ach guideline is computed elect a "Margin of improvement (MI)" and a elevance (R)" for each guideline Click the "Generate" button The "Generate guidelines" popup closes, the "Step 3: Seneration of the new design supported by the advisory" subection appears, showing the guidelines radar-chart Assess the guidelines radar chart in the "Step 3: Generation of the new design supported by the advisory" sub-section All relevant information for the desired section is displayed YES Hover the mouse over a point in the guidelines A popup showing the "Level of circularity improvement" indicate radar chart elect a guideline from the "Assessment for" opdown, at the bottom of the guidelines radar The "Associated feedback" and "Advisory" content in the table below change accordingly YES ick the "OPEN SCENARIOS IN GRETA" buttor flove between the "LCA" and "LCC" tabs below ne "OPEN SCENARIOS IN GRETA" button he scenarios radar chart updates accordingly YES lick the "REFRESH" button on the top right of t YES cenarios comparison" section All relevant information for the scenarios is displayed YES Hover the mouse over a point in the scenarios A tooltip with the category value for the selected scenario YES Click the "DOWNLOAD REFERENCE REPORT The report for the reference scenario is exported in ".pdf" format YES button can have info that pdf file is expected lick the "DOWNLOAD BEST-CASE REPORT he report for the best-case scenario is exported in ".pdf" forma utton can have info that pdf file is expected YES YES ssess the "Metal Wheel (MARAS)" section All relevant information for the desired section is displayed YES Click the "DOWNLOAD" button at the top right of The metal wheel is exported in ".png" format YES button can have info that png is expected

Figure 3.301: Eco-design advisory module - Functional evaluation for user EUROLCDS - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.





Functional evaluation - Test results

Figure 3.302: Eco-design advisory module -Visual results of the functional evaluation for user EUROLCDS - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 27 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.303: Eco-design advisory module -Tabular results of the functional evaluation for user EUROLCDS -Homepage

3.4.3.1.2 Non-functional Evaluation

10%

0%

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.9 |

Figure 3.304: Eco-design advisory module -Tabular results of the non-functional evaluation for user EUROLCDS -Homepage

Non-functional evaluation - Test results

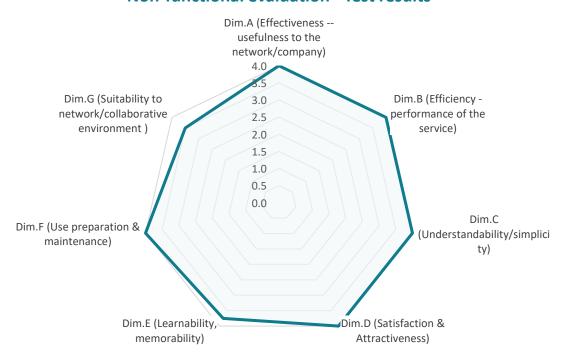


Figure 3.305: Eco-design advisory module -Visual results of the non-functional evaluation for user EUROLCDS -Homepage

3.4.3.2 Evaluation tester #2 (ILSSA)

3.4.3.2.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

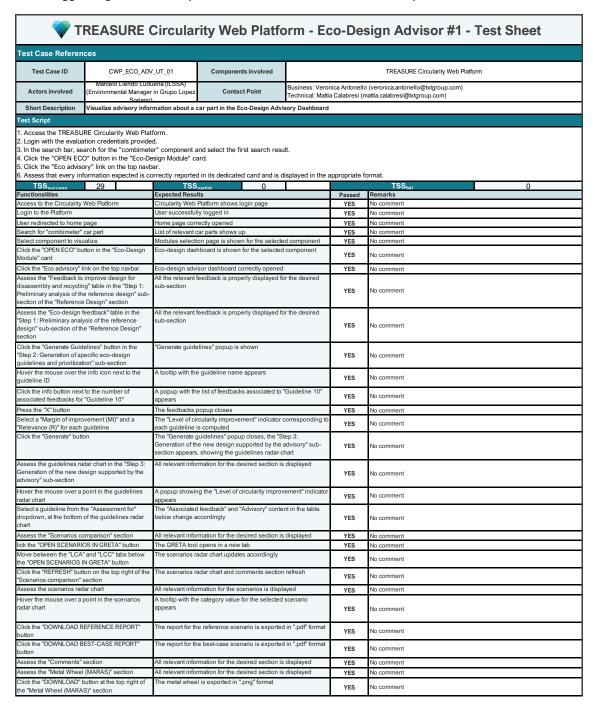


Figure 3.306: Eco-design advisory module - Functional evaluation for user ILSSA - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.





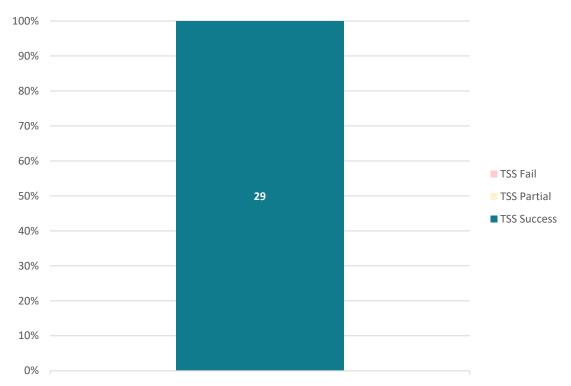


Figure 3.307: Eco-design advisory module -Visual results of the functional evaluation for user ILSSA - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.308: Eco-design advisory module -Tabular results of the functional evaluation for user ILSSA - Homepage

3.4.3.2.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.9 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.8 |

Figure 3.309: Eco-design advisory module -Tabular results of the non-functional evaluation for user ILSSA -Homepage

Non-functional evaluation - Test results Dim.A (Effectiveness -usefulness to the network/company) 4.0 3.5 Dim.G (Suitability to 3.0 Dim.B (Efficiency network/collaborative performance of the 2.5 environment) service) 2.0 1.5 1.0 0.5 0.0 Dim.C Dim.F (Use preparation & (Understandability/simplici maintenance) ty) Dim.E (Learnability, Dim.D (Satisfaction &

Figure 3.310: Eco-design advisory module -Visual results of the non-functional evaluation for user ILSSA - Homepage

Attractiveness)

3.4.3.3 Evaluation tester #3 (POLLINI)

memorability)

3.4.3.3.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.



The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

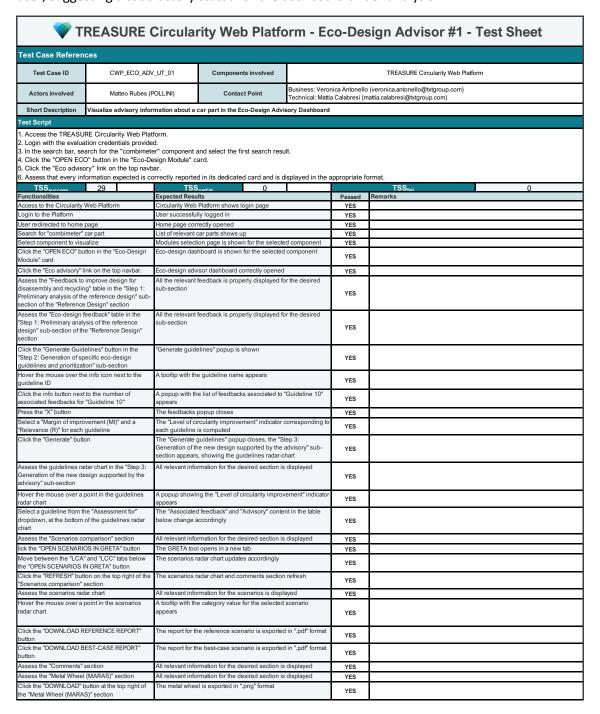


Figure 3.311: Eco-design advisory module - Functional evaluation for user POLLINI - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

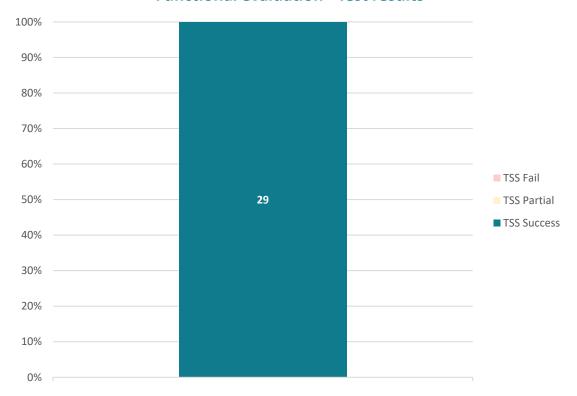


Figure 3.312: Eco-design advisory module -Visual results of the functional evaluation for user POLLINI - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.313: Eco-design advisory module -Tabular results of the functional evaluation for user POLLINI - Homepage

3.4.3.3.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage, a full score has been achieved by all dimensions, indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.314: Eco-design advisory module -Tabular results of the non-functional evaluation for user POLLINI -Homepage

Non-functional evaluation - Test results

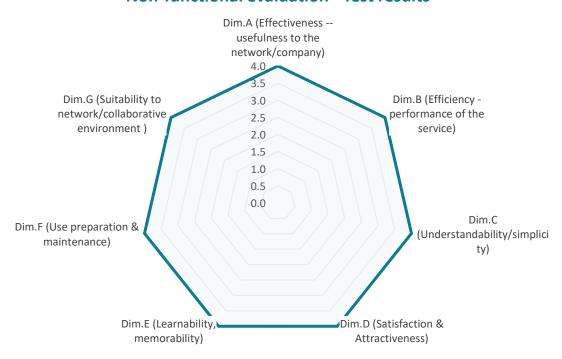


Figure 3.315: Eco-design advisory module -Visual results of the non-functional evaluation for user POLLINI -Homepage

3.4.3.4 Evaluation tester #4 (SEAT)

3.4.3.4.1 Evaluation user #1

3.4.3.4.1.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

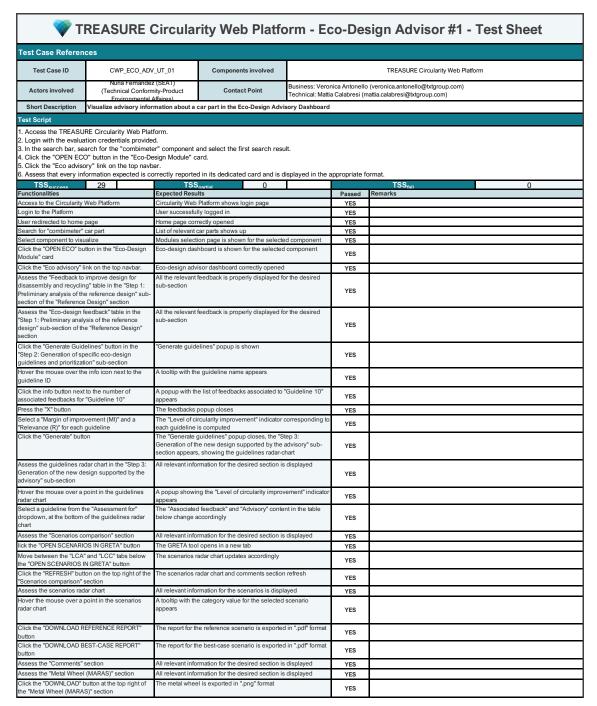


Figure 3.316: Eco-design advisory module - Functional evaluation for user SEAT (tester #1) - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

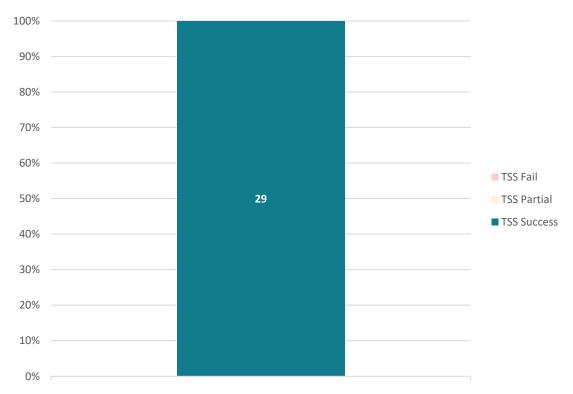


Figure 3.317: Eco-design advisory module -Visual results of the functional evaluation for user SEAT (tester #1) -Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 27 |
| TSS Partial | 2 |
| TSS Fail | 0 |

Figure 3.318: Eco-design advisory module -Tabular results of the functional evaluation for user SEAT (tester #1) - Homepage

3.4.3.4.1.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable score has been achieved by many dimensions, while attention is needed by user preparation.



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 3.0 |
| Dim.C (Understandability/simplicity) | 2.3 |
| Dim.D (Satisfaction & Attractiveness) | 2.4 |
| Dim.E (Learnability, memorability) | 1.5 |
| Dim.F (Use preparation & maintenance) | 2.0 |
| Dim.G (Suitability to network/collaborative environment) | 2.3 |
| | Total |
| | 2.4 |

Figure 3.319: Eco-design advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #1) - Homepage

Non-functional evaluation - Test results

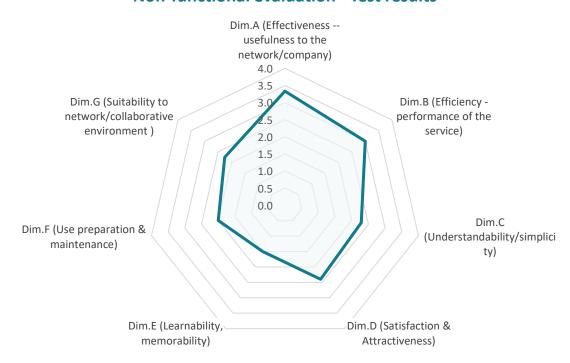


Figure 3.320: Eco-design advisory module -Visual results of the non-functional evaluation for user SEAT (tester #1) -Homepage

3.4.3.4.2 Evaluation user #2

3.4.3.4.2.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

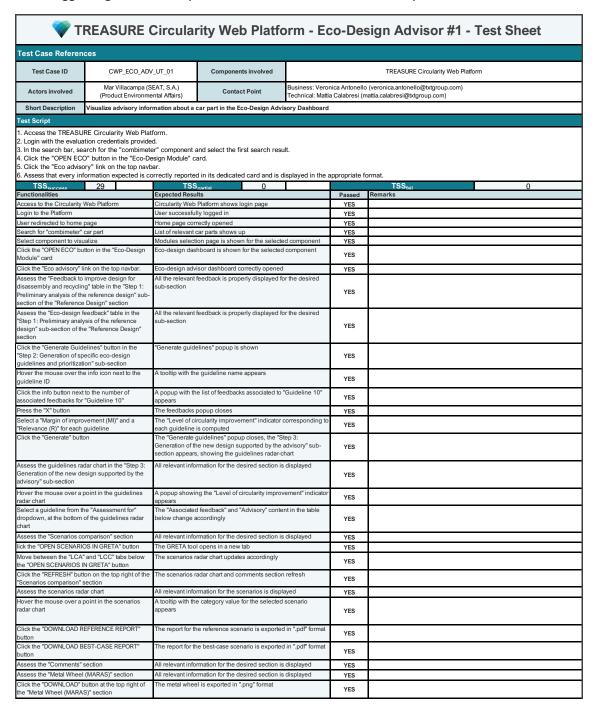


Figure 3.321: Eco-design advisory module - Functional evaluation for user SEAT (tester #2) - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

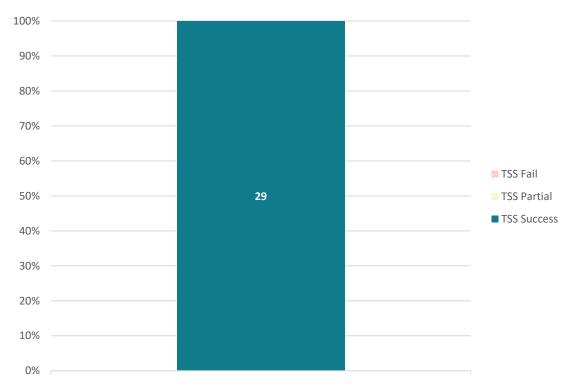


Figure 3.322: Eco-design advisory module -Visual results of the functional evaluation for user SEAT (tester #2) - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.323: Eco-design advisory module -Visual results of the functional evaluation for user SEAT (tester #2) -Homepage

3.4.3.4.2.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage a reasonable score has been achieved by many dimensions, while attention is needed by learnability.



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 2.1 |
| Dim.D (Satisfaction & Attractiveness) | 2.6 |
| Dim.E (Learnability, memorability) | 2.0 |
| Dim.F (Use preparation & maintenance) | 2.4 |
| Dim.G (Suitability to network/collaborative environment) | 2.5 |
| | Total |
| | 2.6 |

Figure 3.324: Eco-design advisory module -Tabular results of the non-functional evaluation for user SEAT (tester #2) - Homepage

Non-functional evaluation - Test results

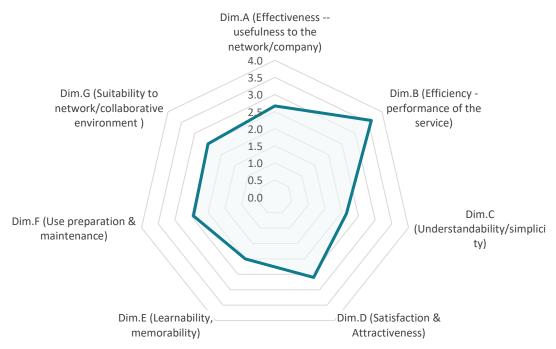


Figure 3.325: Eco-design advisory module -Visual results of the non-functional evaluation for user SEAT (tester #2) - Homepage

3.4.3.5 Evaluation tester #5 (TNO)

3.4.3.5.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with no remark from the test user, suggesting a satisfactory status for the dashboard under analysis.

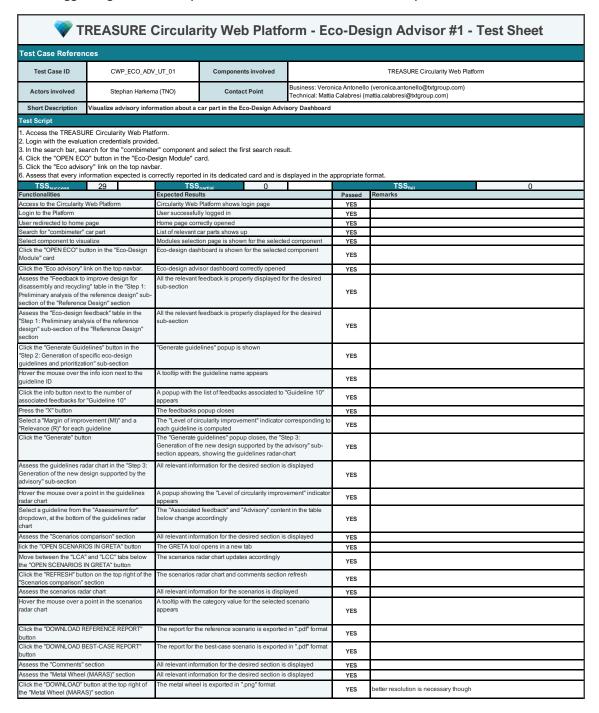


Figure 3.326: Eco-design advisory module - Functional evaluation for user TNO - Homepage

The evaluation shows no TSS fail, granting a satisfactory score overall, as visible in the figure below.



Functional evaluation - Test results

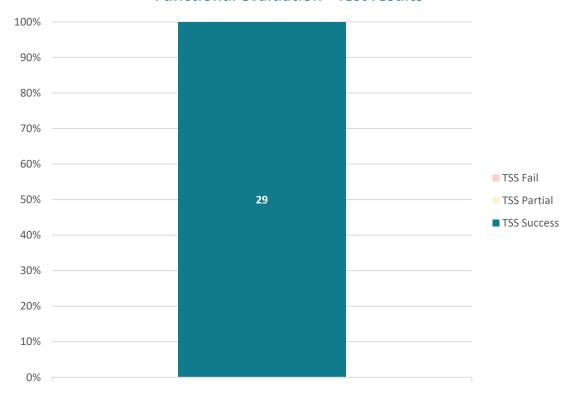


Figure 3.327: Eco-design advisory module -Visual results of the functional evaluation for user TNO - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |

Figure 3.328: Eco-design advisory module -Tabular results of the functional evaluation for user TNO - Homepage

3.4.3.5.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |

Figure 3.329: Eco-design advisory module -Tabular results of the non-functional evaluation for user TNO - Homepage

Non-functional evaluation - Test results

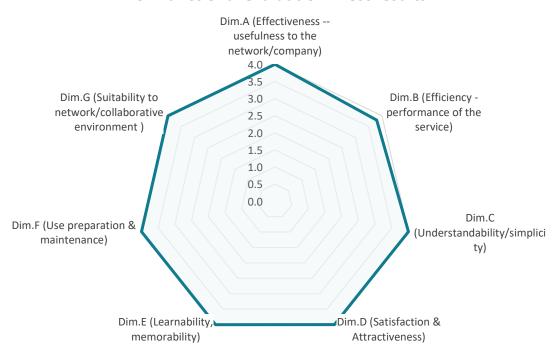


Figure 3.330: Eco-design advisory module -Visual results of the non-functional evaluation for user TNO - Homepage

3.4.3.6 Evaluation tester #6 (UNIVAQ)

3.4.3.6.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.



The test sheet below shows all tests have passed successfully, with only a partial remark concerning the image quality of the support material.

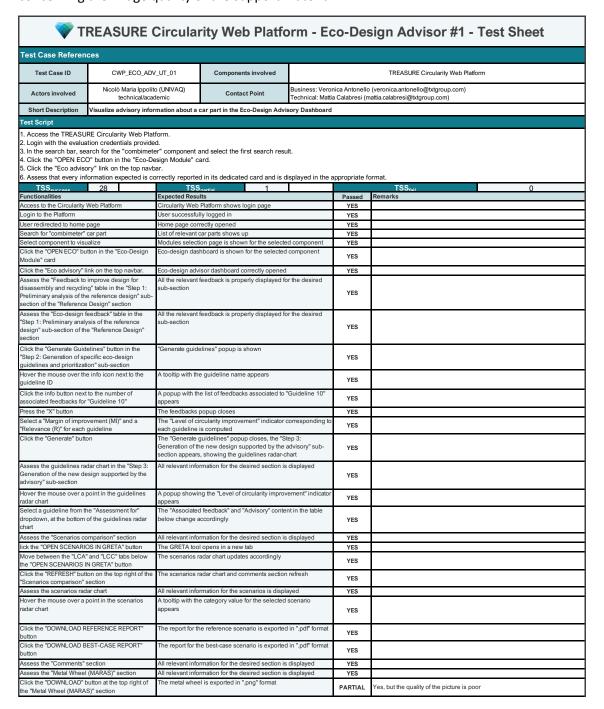


Figure 3.331: Eco-design advisory module - Functional evaluation for user UNIVAQ - Homepage

The evaluation shows no TSS fail, with only one TSS partial related to the image quality of the support material as reported above, granting a satisfactory score overall, as visible in the figure below.



30%

20%

10%

0%

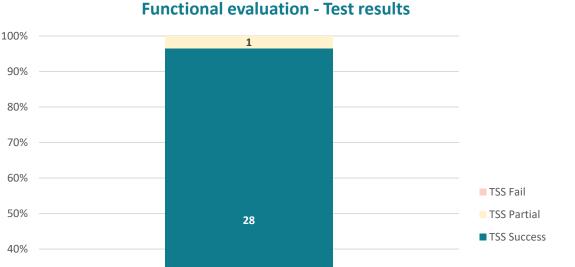


Figure 3.332: Eco-design advisory module -Visual results of the functional evaluation for user UNIVAQ - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 28 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.333: Eco-design advisory module -Tabular results of the functional evaluation for user UNIVAQ - Homepage

3.4.3.6.2 Non-functional Evaluation

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by effectiveness and simplicity, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.6 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |

Figure 3.334: Eco-design advisory module -Tabular results of the non-functional evaluation for user UNIVAQ -Homepage

Non-functional evaluation - Test results

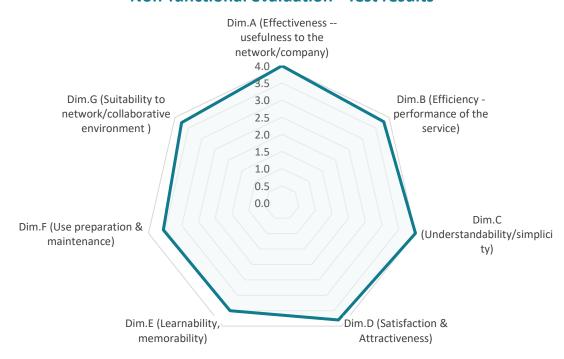


Figure 3.335: Eco-design advisory module -Visual results of the non-functional evaluation for user UNIVAQ -Homepage

3.4.3.7 Evaluation tester #7 (WALTERPACK)

3.4.3.7.1 Functional Evaluation

The functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the functional assessments for the current tester. First, the compiled functional evaluation is provided, followed by a description of the results, then the test results



bar chart is shown with the relative TSS results table. This procedure is repeated for the dashboard homepage and for the other pages under assessment within this module.

The test sheet below shows all tests have passed successfully, with a minor remark when it comes to the naming convention for the popup menu.

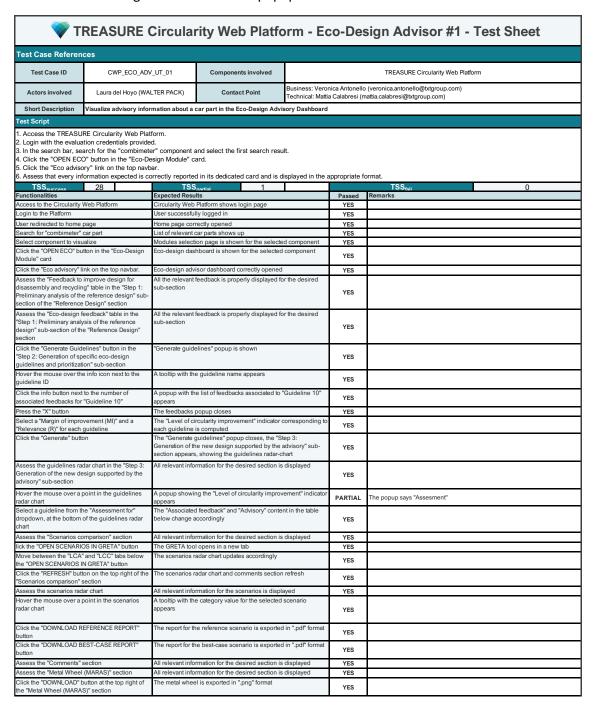
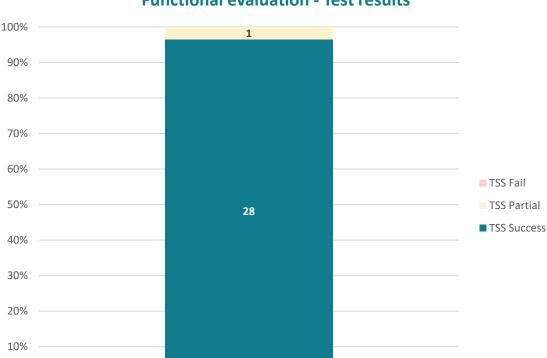


Figure 3.336: Eco-design advisory module - Functional evaluation for user WALTERPACK - Homepage

The evaluation shows no TSS fail, with only one TSS partial related to the clarity of a popup menu as reported above, granting a satisfactory score overall, as visible in the figure below.





Functional evaluation - Test results

Figure 3.337: Eco-design advisory module -Visual results of the functional evaluation for user WALTERPACK - Homepage

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 28 |
| TSS Partial | 1 |
| TSS Fail | 0 |

Figure 3.338: Eco-design advisory module -Tabular results of the functional evaluation for user WALTERPACK -Homepage

3.4.3.7.2 Non-functional Evaluation

0%

The non-functional evaluation of the Eco-design module of the Circular Advisory tool was carried out considering the information provided in the main advisory dashboard.

The testing tasks concerned the log in phase, and the assessment on the compliance level of the existing and improved design with specific guidelines using a radar graphic that highlights key impact factors to compare the reference design with the best-case one.

Below are listed the non-functional assessments for the current tester. First, the results table is provided accompanied by a summary of the test performed, then the test results radar chart is reported with a general overview on the evaluation.

If we consider the non-functional evaluation of the homepage full score has been achieved by many dimensions, while a high score has been achieved by the rest of the dimensions indicating an overall satisfaction with the dashboard.



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.8 |

Figure 3.339: Eco-design advisory module -Tabular results of the non-functional evaluation for user WALTERPACK - Homepage

Non-functional evaluation - Test results

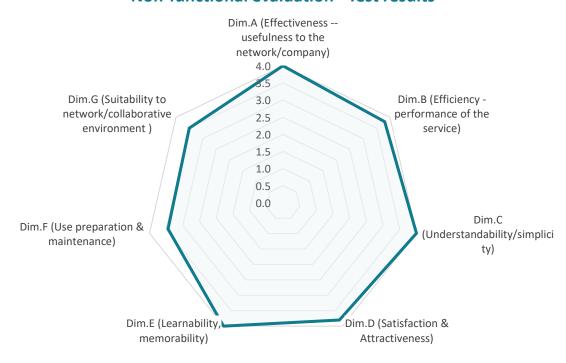


Figure 3.340: Eco-design advisory module -Visual results of the non-functional evaluation for user WALTERPACK — Homepage

3.4.3.8 Overall results

3.4.3.8.1 Functional evaluation

The functional evaluation for the Eco-design Advisory module has an overall satisfactory outcome. All evaluation testers reported most, if not all, tests successfully passed with no remarks. As can be seen in the figure below, the total number of TSS success is 228, the total number of TSS partial is 2 and the total number of TSS fail is 0.



| Eco-design Advisory Module - Overall Results Assessment | |
|---|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 228 |
| TSS Partial | 2 |
| TSS Fail | 0 |

Figure 3.341 – Eco-design Module - Functional evaluation overall results assessment

The two attention points for this module have been raised by UNIVAQ and WALTERPACK:

- From UNIVAQ, in the home page of the Eco-design advisory dashboard, a comment has been made for the "Metal Wheel" supporting material concerning the low resolution of the image to be downloaded.
- From WALTERPACK, in the home page of the Eco-design advisory dashboard, a comment has been made for the "Level of circularity improvement" popup, indicating that the text could be clarified further.

3.4.3.8.2 Non-functional evaluation

The non-functional evaluation for the Eco-design Advisory module has an overall satisfactory outcome.

| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.8 |
| Dim.B (Efficiency - performance of the service) | 3.7 |
| Dim.C (Understandability/simplicity) | 3.5 |
| Dim.D (Satisfaction & Attractiveness) | 3.5 |
| Dim.E (Learnability, memorability) | 3.3 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.4 |
| | Total |
| | 3.5 |

Figure 3.342: Eco-design Advisory Module - Non-functional evaluation overall results assessment



4 Lessons learned

By analyzing the functional and non-functional assessments from the different end-users, it is possible to spot some common traits and patterns that have been expressed during the testing activities. Here are reported the lessons learned from the final round of test assessments for the TREASURE Circularity Web Platform and the Circular Advisory Tool.

In general, different types of users belonging to different backgrounds and having different domain knowledge can interpret the various dimensions in different ways. The platform needs to adapt to the different requirements of the users to better offer its services independently on the type of user. In particular, for each module a dedicated attention is needed to allow the main target audience to easily understand the tools at disposal and how to use them. On the other hand, the same dashboards need to be revised in such a way that they allow also non-domain-expert users to at least grasp the general concept and benefits in using the module; therefore, adaptability is a key lesson to be further considered. In general, experts in one field found easier to understand and utilize the dashboards that are more in line with their qualification while finding some difficulties in interacting with the dashboard not relevant to their usual activities.

All the aspects here considered have been taken into account when outlining the conclusions and future work related to the platform and advisory modules improvement. The full list of considerations is reported in the next chapter.



5 Conclusions and Next Steps

The Evaluation process carried out in T4.6 had as major goal testing all technical developments performed in T4.4. and T4.5, thus concerning both the Circularity Web Platform and the Circular Advisory Tool. The validation activities have been executed taking into consideration 2 major elements: the purpose of the specific platform component to check the system availability for the key sections relevant for the user; and the type of users that operates on the modules according to the authorization protocol and domain of expertise.

In this deliverable the test of TREASURE platform has been reported. The two major sections of the document describe: i) the process followed to prepare, accomplish and measure the test of the system and ii) the test execution (test sheet – test report and evaluation analysis) where a specific sub-section has been devoted for each module of the TREASURE platform.

Overall, a total amount of 1135 tests have been executed. A detailed description of functional and non-functional evaluations of the system have been performed approaching the project platform from 6 different perspectives:

- I. Circularity Web Platform
- Disassemblability Module:
 - Regular user of the disassemblability dashboards: the functional and nonfunctional evaluation was carried out considering not only the main page of the platform but also the detail pages (referenced as Level 1 and Level 2) that provides additional information on the assessment of specific data about a car part/component disassemblability difficulty and required tools.
- Recyclability module:
 - Regular user of the recyclability dashboards: the functional and non-functional evaluation was carried out considering not only the main page of the platform but also the detail page that provides additional information on the assessment of specific data about individual recycling rates for a car part/component.
- Eco-design module:
 - Regular user of the eco-design dashboards: the functional and non-functional evaluation was carried out considering not only the main page of the platform but also the detail page that provides additional information on the assessment of specific data about individual metals present in a car part/component.
- II. Circular Advisory Tool:
 - Disassemblability Advisory Module
 - Advisory user of the circular advisory dashboards: the functional and nonfunctional evaluation was carried out considering the main page of the module.
 - Recyclability Advisory Module
 - Advisory user of the circular advisory dashboards: the functional and nonfunctional evaluation was carried out considering the main page of the module.
 - Eco-design Advisory Module



 Advisory user of the circular advisory dashboards: the functional and nonfunctional evaluation was carried out considering the main page of the module.

In these perspectives the focus of the assessment has been put on the usage of the system by different kind of end-users (BoL, EoL and Domain experts); this approach was selected as it allows to gain feedback from a diverse audience that provides a well-rounded feedback from different perspectives.

By analyzing all data extracted from the functional and non-functional assessments, it is possible to identify some trends related to the feedback provided by the users. In particular:

- Concerning the functional evaluation, a series of minor improvements can be performed relative to the chart visualizations that present some inconsistencies or hard to read values. Another attention point has been identified in the form of the provided indications on how to interact with certain features of the dashboards (e.g. interactive chart thresholds or numeric inputs for revenue and profit margins); these sometimes outlined an improper behavior when it comes to data insertion to update the interactive charts. Finally, in accordance with the non-functional evaluation results, a general trend has been identified around the need for improved guidelines, explanations and tooltips to guide the user through the various dashboard. These last complaints mainly come from users that are not very familiar with a particular portion of the platform and thus need additional support to better exploit the capabilities of the different modules.
- Concerning the non-functional evaluation, the general sentiment around the circularity platform and advisory tool is positive: almost all end-users found the module dashboards filled with useful information; users were overall satisfied with the usefulness of the platform and its efficiency, efficacy, performance and lean towards collaboration. The main attention points have been identified around learnability, that is the ability for the user to quickly memorize the dashboard features and use the effectively from the beginning, and clarity that is the ability of the user to clearly understand the purpose of the various modules and their usage and scope. Such attention points are fully aligned with the results of the functional assessment and are mainly expressed, in turn, by users that are far from the domain of usage of the platform module, suggesting that further effort can be put in improving the design of the modules to allow easier onboarding of the users, even the less knowledgeable ones.

Overall, the received results of the test are satisfactory and in line with expectations for both functional and non-functional tests. In general, the TREASURE platform has been rated as good in all its different perspectives.

Space for improvements have been extracted from the testers' reports and summarized here below. This will be the starting point for the improvement of the system after the end of the project.

The next steps identified from users functional and non-functional assessments are listed below:

• Concerning the Circularity Web Platform:



- Concerning the Disassemblability module:
 - Fix the chart label as it is too small when the corresponding percentage value is low in the pie charts of the disassemblability dashboard.
- Concerning the Recyclability module:
 - Provide a reading key for the details table related to the individual recycling rates in the REC dashboard.
 - Provide a tooltip to better describe the level-2 total recycling rate.
 - Provide a fallback message when no recycling rate can be shown for the selected recycling route.
 - Allow removal of the comment from the author.
- Concerning the Eco-design module:
 - Improve clarity of Ag and Al elements display in the ECO dashboard.
 - Optimize file name for the exported report and add measurement units in the excel sheet exported from the details page of the ECO dashboard.
 - Fix chart label too small when the corresponding percentage value is low in the pie chart of the ECO dashboard.
- Concerning the Circular Advisory Tool:
 - Concerning the Disassemblability advisory module:
 - Increase the number of digits of the numerical input box in the thermodynamic rarity value limit box of the DIS advisory dashboard.
 - Add the possibility to adjust the upper and lower bounds for the thermodynamic rarity value limit in the DIS advisory dashboard.
 - Fix the numeric input not allowing decimal values above 9 in the thermodynamic rarity value limit input box in the DIS advisory dashboard.
 - Provide a tooltip explaining how to adjust the metrics in the DIS advisory dashboard.
 - Add smoother animations when adjusting the thermodynamic rarity vs revenue chart in the DIS advisory dashboard.
 - o Concerning the Recyclability advisory module:
 - Improve the chart responsiveness when zoomed to prevent cutting the corners in the REC advisory dashboard.
 - Add information tooltip to explain risk values in the recycling route tooltip in the REC advisory dashboard.
 - Add the initial value for the profit metric in the recycling route tooltip of the REC advisory dashboard.
 - Include an explanation about the method to extract metals in the top table of the REC advisory dashboard.
 - Concerning the Eco-design advisory module:
 - Add information about the file type to be downloaded in the download buttons for pdf reports and image supporting material in the ECO advisory dashboard.
 - Increase the resolution of the MARAS metal wheel provided as supporting material in the ECO advisory dashboard.



 Adjust the naming convention for the guidelines popup in the guidelines radar chart of the ECO advisory dashboard.

As can be derived from above, the next steps will be mainly focused in addressing the outcome of the functional and non-functional assessments as described above, improving the usability of the dashboards and favoring easier adoption from less expert users. Furthermore, additional activities will be carried out according to the reported plan provided from WP8 deliverables.



Abbreviations

| SQuaRE | Systems and software Quality Requirements and Evaluation |
|--------|--|
| CE | Circular Economy |
| GUI | Graphic user interface |
| TSS | Test Sheet Score |



Annexes

The full test reports are provided as annex attached at the present document.



TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|-------------------|--|---------------------------------|--|
| Actors involved | EuroLCds | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Visualize advisory information about a car | part in the Eco-Design Advisory | Dashboard |

Test Script

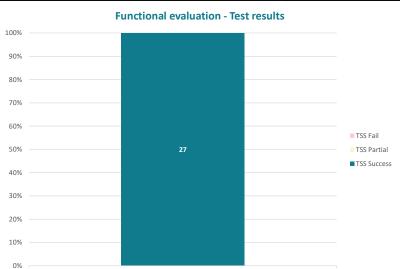
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
 5. Click the "Eco advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} 27 | TSS _{partial} 0 | | TSS _{fail} 0 |
|--|--|--------|--|
| Functionalities | Expected Results | Passed | Remarks |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | |
| Login to the Platform | User successfully logged in | YES | |
| User redirected to home page | Home page correctly opened | YES | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | | |
| Module" card | | YES | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | | |
| disassembly and recycling" table in the "Step 1: | section | YES | |
| Preliminary analysis of the reference design" sub- | | 153 | |
| section of the "Reference Design" section | | | |
| Assess the "Eco-design feedback" table in the "Step 1: | All the relevant feedback is properly displayed for the desired sub- | | |
| Preliminary analysis of the reference design" sub- section of the "Reference Design" section | section | YES | |
| section of the Reference Design Section | | | |
| Click the "Generate Guidelines" button in the "Step 2: | "Generate guidelines" popup is shown | - | |
| Generation of specific eco-design guidelines and | Generate guidennes popup is snown | YES | |
| prioritization" sub-section | | 1 123 | |
| Hover the mouse over the info icon next to the | A tooltip with the guideline name appears | | |
| guideline ID | | | |
| Click the info button next to the number of associated | A popup with the list of feedbacks associated to "Guideline 10" | | |
| feedbacks for "Guideline 10" | appears | YES | |
| Press the "X" button | The feedbacks popup closes | YES | |
| Select a "Margin of improvement (MI)" and a | The "Level of circularity improvement" indicator corresponding to | \/F0 | |
| "Relevance (R)" for each guideline | each guideline is computed | YES | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of | | |
| | the new design supported by the advisory" sub-section appears, | YES | |
| | showing the guidelines radar-chart | | |
| Assess the guidelines radar chart in the "Step 3: | All relevant information for the desired section is displayed | | |
| Generation of the new design supported by the | | YES | |
| advisory" sub-section | | | |
| Hover the mouse over a point in the guidelines radar | A popup showing the "Level of circularity improvement" indicator | | |
| chart | appears | | |
| Select a guideline from the "Assessment for" dropdown, at the bottom of the guidelines radar chart | The "Associated feedback" and "Advisory" content in the table below change accordingly | VEC | |
| dropdown, at the bottom of the guidelines radar chart | change accordingly | YES | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | |
| Move between the "LCA" and "LCC" tabs below the | The scenarios radar chart updates accordingly | 123 | |
| "OPEN SCENARIOS IN GRETA" button | The scenarios radar chart appares accordingly | YES | |
| Click the "REFRESH" button on the top right of the | The scenarios radar chart and comments section refresh | | |
| "Scenarios comparison" section | | YES | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | |
| Hover the mouse over a point in the scenarios radar | A tooltip with the category value for the selected scenario appears | | |
| chart | | YES | |
| | | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | button can have info that pdf file is expected |
| | | TES | button can have into that put life is expected |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | YES | button can have info that pdf file is expected |
| | | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | |
| Click the "DOWNLOAD" button at the top right of the | The metal wheel is exported in ".png" format | YES | button can have info that png is expected |
| "Metal Wheel (MARAS)" section | | | <u> </u> |
| Non-Functional Evaluation | | | |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total 4.0 |
| Ref # Question | | | Answer (0-4) |
| A1 It is easy to understand the objective | and benefit of the service to my organization/network. | | 4 |

| | The outcome of the service is important / useful for the company/network. The service creates value | for my | | | |
|--|---|----------------|-------------|---|-----|
| | company &network, for example by | | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| A2 | - saving time, accelerating processes | | | 4 | |
| AZ | - decreasing risks - improving quality | | | 4 | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| | - supporting networking with other organizations | | | | |
| А3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | | |
| | What could be improved to make more value of the tool/service? | | | | |
| A4 | 4 | | | | |
| Dim.B (Effi | ciency - performance of the service) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | | 44 | |
| B2 | The service runs fast enough. | | | 4 | |
| B3 | The service does not require too many steps to achieve the result. | | | 4 | |
| B4 | All the functions are beneficial for my company/ network. | | | 4 | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | т — | |
| B6 | What could be improved to make more value of the tool/service: | | | | |
| Dim C /Uni | derstandability/simplicity) | | Total | | 4.0 |
| | | | i Utai | Anower (0, 4) | 4.0 |
| Ref # | Question | | | Answer (0-4) | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 4 | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | 4 | |
| C3 | The service offers sufficient guidance | | | 4 | |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the | е | | 4 | |
| | TREASURE style. | 5.11 | | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purport. | ose of the | | 4 | |
| | actions required. | not in | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear where required for input. | iat is | | 4 | |
| C7 | The output of the service is clear and understandable. | - | | 4 | |
| - 07 | What could be improved to make more value of the tool/service? | | | 4 | |
| C8 | what could be improved to make more value of the tool/service? | | | | |
| Sim D /Cat | isfaction & Attractiveness) | | Total | | 4.0 |
| | · · · · · · · · · · · · · · · · · · · | | TOLAI | A = = = = (0, 4) | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| | The conducte of the office to the conducted by the field and confertable colors color the conducted | | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D1 D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status | s and starting | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. | s and starting | | 4 | |
| D2 D3 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. | s and starting | | 4 | |
| D2 D3 D4 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally | s and starting | | 4 4 4 | |
| D2 D3 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. | s and starting | | 4 | |
| D2 D3 D4 D5 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally | s and starting | | 4 4 4 | |
| D2 D3 D4 D5 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | s and starting | | 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? rnability, memorability) | s and starting | Total | 4 4 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? rnability, memorability) Question | s and starting | Total | 4 4 4 4 Answer (0-4) | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. | s and starting | Total | 4 4 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? The mental workload when using the service for other people/organizations. What could be improved to make more value of the tool/service? The mental workload when using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | s and starting | Total | 4 4 4 4 Answer (0-4) 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. | s and starting | Total | 4 4 4 4 Answer (0-4) 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? The mental workload when using the service for other people/organizations. What could be improved to make more value of the tool/service? The mental workload when using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | s and starting | Total | 4 4 4 4 Answer (0-4) 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. | s and starting | Total | 4 4 4 4 Answer (0-4) 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | s and starting | Total | 4 4 4 4 Answer (0-4) 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | s and starting | Total Total | 4 4 4 4 Answer (0-4) 4 4 | 3.8 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? | s and starting | | 4 4 4 4 Answer (0-4) 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question | s and starting | | 4 4 4 4 Answer (0-4) 4 4 4 3 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. | s and starting | | 4 4 4 4 Answer (0-4) 4 4 4 3 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question | | | 4 4 4 4 4 Answer (0-4) 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use Ref # | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily mavailable for the service. | | | 4 4 4 4 4 Answer (0-4) 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily mavailable for the service. The service can be easily customized/ configured to my environment/ network. | | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily in available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily in available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | | | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | | | 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 F8 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. | | | 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 F8 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily in available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? | | Total | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 | 4.0 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit) | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily in available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require witensive change of business processes. The service does not require witensive change of business processes. What could be improved to make more value of the tool/service? | | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | Total | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 4.0 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suif-Ref # G1 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? I could be improved to make more value of the tool/service? I contain installation does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaborative environment) Question The service supports collaborative environment) | | Total | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 4.0 |
| D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit) Ref # G1 G2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily in available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment to the service is suitable for heterogeneous users and different networks. | | Total | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 4.0 |
| D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suif-Ref # G1 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? I could be improved to make more value of the tool/service? I contain installation does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily navailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaborative environment) Question The service supports collaborative environment) | | Total | 4 4 4 4 4 4 4 4 3 Answer (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 4.0 |

| Results Assessment | | | | | | |
|----------------------|-------------|--|--|--|--|--|
| Functional Dimension | | | | | | |
| | TSS Results | | | | | |
| TSS Success | 27 | | | | | |
| TSS Partial | 0 | | | | | |
| TSS Fail | 0 | | | | | |



| Non-functional Dimension | | | | | |
|---|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.9 | | | | |







TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case ID CWP_DIS_ADV_UT_01 Components involved TREASURE Circularity Web Platform Actors involved EuroLCDs Contact Point Business: Veronica Antonello (veronica.antonello@bxtgroup.com) Technical: Mattia Calabresi@txtgroup.com) Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard

Test Script

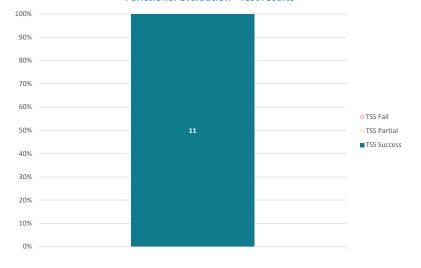
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.
- 5. Click the "Dis advisory" link on the top navbar.

required for input.

The output of the service is clear and understandable.

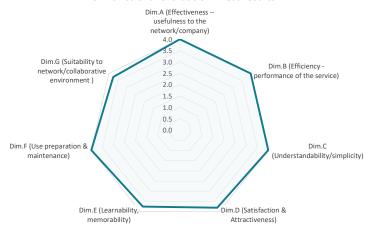
| TSS _{success} | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 | |
|---|---|------------------|---|---|---------------------|------------|---------------------|-------------------|----------|--|
| unctionalities | | • | Expected Results | , , | | Passed | Remarks | | <u> </u> | |
| ccess to the Circularity V | Veb Platform | 1 | Circularity Web Platform shows | login page | | YES | | | | |
| ogin to the Platform | | | User successfully logged in | -5 5- | | YES | | | | |
| ser redirected to home p | age | | Home page correctly opened | | | YES | | | | |
| earch for "combimeter" of | | | List of relevant car parts shows up | | | YES | | | | |
| elect component to visua | | | Modules selection page is show | <u> </u> | omnonent | YES | | | | |
| Click the "OPEN DIS" button in the "Disassemblabilit | | | Disassembly dashboard is show | | | TEO | | | | |
| Jick the "OPEN DIS" button in the "Disassemblability Module" card Dick the "Dis advisory" link on the top navbar. Assess "Electrical and electronic equipment" sub- section of the "Metals to be extracted" section | | | , | | omponent | YES | | | | |
| | | | Disassembly advisor dashboard | | | YES | | | | |
| | | | All relevant information for the desired sub-section is displayed | | | | | | | |
| ssess time and cost metr | ics below th | e metals table | All relevant information for the | desired sub-section i | s displayed | YES | | | | |
| djust the "Disassembly c | ost per hour | " value | The "Estimated disassembly co | st" metric is adjusted | daccordingly | YES | | | | |
| ssess "Thermodynamic r | | | All relevant information for the | desired sub-section i | s displayed | YES | | | | |
| djust the "Thermodynam | ic rarity valu | | The lower limits for the "Thermo" "Revenue" metrics are adjusted | | | YES | | | | |
| over with the mouse ove | | he chart | A tooltip with specific metrics a | | | VEC | + | | | |
| | | ine chart | A toolup with specific metrics a | Dour the selected me | stat is SHOWH | YES | | | | |
| Ion-Functional Eva | | | | | | | | | | |
| m.A (Effectiveness u ef # Question | sefulness to | the network/c | company) | | | | Total | Answer (0-4) | 4.0 | |
| A2 - decreasing - improving - sharing inf - attracting of - boosting le - supporting A3 It is easy to | grisks quality promation customers earning and networking achieve the | | | | vice. | | | 4 | | |
| m.B (Efficiency - perfo | rmance of t | he service) | | | | | Total | | 4.0 | |
| | mance of t | iic sei vice) | | | | | iolai | A | 4.0 | |
| ef# Question | | | | | | | | Answer (0-4) | | |
| | | | chieve the objectives with the | service are reaso | niable/moderate. | | | | | |
| B2 The service | | | | | | | | 4 | | |
| B3 The service | does not re | equire too mar | ny steps to achieve the result. | | | | 4 | | | |
| B4 All the funct | ions are be | neficial for my | company/ network. | | | | 4 | | | |
| B5 The service | structure a | llows flexible & | & fast performance of the task | (S. | | | | 4 | | |
| | | | nore value of the tool/service | | | | • | | | |
| m.C (Understandability | //simplicity | | | | | | Total | | 4.0 | |
| | ,,Jiiipiicity) | | | | | | Iolai | A | 4.0 | |
| ef# Question C1 The service | structure a | nd logic is eas | sy and self-clear to understan | d and recognizable | e. | | | Answer (0-4) 4 | | |
| | ts are unde | rstandable for | my organization and in line w | vith TREASURE ter | rminology | | | 4 | | |
| | | cient guidance | | | | | | 4 | | |
| | es to user | | derstandable. The look and fe | eel is self explanate | ory and follows the | ne | | 4 | | |
| C5 The support | to busines | s processes / | tasks is clear. The user can u | nderstand his/her | role and the purp | ose of the | | 4 | | |
| actions required. The service is simple enough for p | | | ctical use. The tasks do not lo | e tasks do not look complex to perform. It is clear what is | | | 4 | | | |

| C8 | What could be improved to make more value of the tool/service? | | | | | |
|-------------|--|-----------------|-------|--------------|-----|--|
| | | _ | | | | |
| | sfaction & Attractiveness) | <u> </u> | Total | | 3.8 | |
| Ref# | Question | <u>i</u> | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stat again. | us and starting | | 3 | | |
| D3 | The mental workload when using the service is low. | | | 4 | | |
| D4 | The service rewards the user also personally | | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 3.8 | |
| Ref# | Question | | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | |
| E4 | The service offers sufficient training support. | | | 3 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| | preparation & maintenance) | | Total | | 4.0 | |
| Ref# | Question | | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | | |
| F5 | The service can be easily shared in the network. | | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.G (Suit | tability to network/collaborative environment) | | Total | | 3.8 | |
| Ref# | Question | | | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | | |
| G3 | The service takes into account safety and security. | | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | | |
| Results A | Assessment | | | | | |
| Functional | Dimension | | | | | |
| T00.0 | | | | TSS Results | | |
| TSS Succ | | | | | 11 | |
| TSS Partia | 11 | | | | (| |
| TSS Fail | | | | | (| |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |

| Dim.B (Efficiency - performance of the service) | 4.0 |
|--|-------|
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.9 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References CWP_REC_ADV_UT_01 Test Case ID Components involved TREASURE Circularity Web Platform Business: Veronica Antonello (veronica.antonello@txtgroup.com) Actors involved EuroLCDs **Contact Point** Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com)

Short Description Visualize advisory information about a car part in the Recyclability Advisory Dashboard

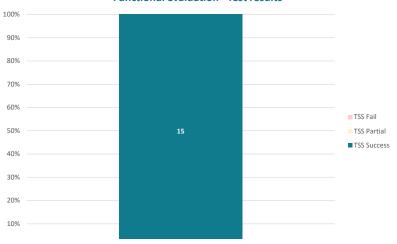
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Click the "Rec advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

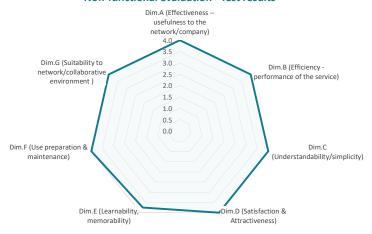
| | hat every information expected is corr | TSS _{partial} | 0 | ayed in the appr | opriate format | TSS _{fail} | | 0 |
|---|--|---|--|---------------------------|----------------|---------------------|--|-----|
| Functionaliti | | Expected Results | U | | Passed | Remarks | | U |
| | e Circularity Web Platform | Circularity Web Platform shows lo | ngin nage | | YES | Remarks | | |
| Login to the F | • | User successfully logged in | ogiii page | | | | | |
| | | , | | | YES | | | |
| | ted to home page | Home page correctly opened | | | YES | | | |
| | combimeter" car part | List of relevant car parts shows up Modules selection page is shown for the selected component | | | YES YES | | | |
| | onent to visualize | <u> </u> | | | YES | | | |
| | PEN REC" button in the "Recyclability ec advisory" link on the top navbar. | Recyclability dashboard is shown | | omponent | | | | |
| | ecycling route table in the "Determine | Recyclability advisor dashboard of All relevant information for the de | | lavad | YES | | | |
| | nation of disassembly path and recycling | All relevant information for the de | sired table is dispi | layed | | | | |
| | nplement (from component to material)" | | | | YES | | | |
| section | , | | | | | | | |
| Press the info | o button at the right of one recycling | The "DIS & REC route X" popup a | appears | | | | | |
| route | | | | | YES | | | |
| Assess the m | naterials in the "DIS & REC route X" table | All relevant information for the de | sired table is displ | layed | | | | |
| | | | | | YES | | | |
| Assess the re | evenue indicator | All relevant information for the de | sired section is dis | splayed | | | | |
| | | | | | YES | | | |
| Adjust the "To | otal cost" value | The "Profit" indicator updates acc | cordingly | | | | | |
| | | | | | YES | | | |
| | | | | | | | | |
| Press the "Cl | lose" ("X") button | The "DIS & REC route X" popup of | closes | | YES | | | |
| A 11 11C | 0 1: 1: 6 | All I C C C C I | | | | | | |
| Assess the "G section | Graphical integration approach" sub- | All relevant information for the de | sired section is dis | splayed | YES | | | |
| | ne mouse over a recycling route in the | A tooltip with specific metrics abo | out the colocted re | ovelina route is | | | | |
| chart | le mouse over a recycling route in the | shown | out the selected re | cycling route is | YES | | | |
| | tional Evaluation | | | | | | | |
| | | <u> </u> | | | | | | |
| Dim.A (Effec | ctiveness usefulness to the network/c | ompany) | | | | Total | | 4.0 |
| | ctiveness usefulness to the network/c | ompany) | | | | Total | Answer (0-4) | 4.0 |
| Ref# | Question | | ny organization/r | network | | Total | Answer (0-4) | 4.0 |
| Ref# 0 | Question It is easy to understand the objective | and benefit of the service to m | | | e for my | Total | | 4.0 |
| Ref# 0 | Question It is easy to understand the objective The outcome of the service is impor | and benefit of the service to m | | | e for my | Total | | 4.0 |
| Ref# C | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by | and benefit of the service to m | | | e for my | Total | | 4.0 |
| Ref# IC | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs | and benefit of the service to m | | | e for my | Total | | 4.0 |
| Ref# IC | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | | 4.0 |
| A1 I | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | 4 | 4.0 |
| A1 I | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | | 4.0 |
| A1 I | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | 4 | 4.0 |
| Ref # 10 A1 I C C C C C C C C C | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | 4 | 4.0 |
| Ref # 10 A1 I C C C C C C C C C | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers | e and benefit of the service to n tant / useful for the company/n | | | e for my | Total | 4 | 4.0 |
| Ref # 10 A1 I C C C C C C C C C | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation | and benefit of the service to n tant / useful for the company/n | | | e for my | Total | 4 | 4.0 |
| A1 I | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers | and benefit of the service to n tant / useful for the company/n | etwork. The serv | vice creates val u | e for my | Total | 4 | 4.0 |
| A2 - | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by saving costs increasing income saving time, accelerating processes decreasing risks improving quality sharing information attracting customers boosting learning and innovation supporting networking with other organization. | and benefit of the service to many trant / useful for the company/n trant / useful for the company/n ganizations | etwork. The server asks with t | vice creates val u | e for my | Total | 4 | 4.0 |
| A3 I | Question It is easy to understand the objective The outcome of the service is impor company & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord | and benefit of the service to many trant / useful for the company/n trant / useful for the company/n ganizations | etwork. The server asks with t | vice creates val u | e for my | Total | 4 | 4.0 |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make meaning the outcome of the planned busi what could be improved to make meaning the outcome of the objective of the planned busi what could be improved to make meaning the outcome of the objective ob | and benefit of the service to many trant / useful for the company/n trant / useful for the company/n ganizations | etwork. The server asks with t | vice creates val u | e for my | | 4 | |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make minercy - performance of the service) | and benefit of the service to many trant / useful for the company/n trant / useful for the company/n ganizations | etwork. The server asks with t | vice creates val u | e for my | Total | 4 | 4.0 |
| A2 - A3 A4 Dim.B (Effici | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busing the saving that could be improved to make memory - performance of the service) Question | ganizations incre value of the tool/service? | asks with the ser | vice creates valu | | | 4 4 Answer (0-4) | |
| A1 A1 A1 A2 A3 A4 Dim.B (Effici | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busing the could be improved to make mulency - performance of the service) Question The time and resources required to accept the polycompany of the service of the service of the time and resources required to accept the service of the service of the service of the time and resources required to accept the service of the service of the service of the time and resources required to accept the service of the servic | ganizations incre value of the tool/service? | asks with the ser | vice creates valu | | | 4 4 Answer (0-4) | |
| A2 - A3 A4 Dim.B (Effici | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iency - performance of the service) Question The time and resources required to an active the planned busi The time and resources required to an active the service runs fast enough. | ganizations iness objectives / perform the talore value of the tool/service? | asks with the ser | vice creates val u | | | 4 4 Answer (0-4) 4 4 | |
| A2 - A3 I A4 Dim.B (Effici Ref # (C B1 B2 B3 T) | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make milency - performance of the service) Question The time and resources required to an The service does not require too man. | ganizations iness objectives / perform the talore value of the tool/service? | asks with the ser | vice creates val u | | | 4 4 Answer (0-4) 4 4 4 | |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by saving costs increasing income saving time, accelerating processes decreasing risks improving quality sharing information attracting customers boosting learning and innovation supporting networking with other ord it is easy to achieve the planned busi What could be improved to make milency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the sales to achieve the result. | asks with the ser | vice creates val u | | | 4 4 Answer (0-4) 4 4 4 4 | |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the salore value of the tools. systeps to achieve the result. company/ network. | asks with the ser | vice creates val u | | | 4 4 Answer (0-4) 4 4 4 | |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by saving costs increasing income saving time, accelerating processes decreasing risks improving quality sharing information attracting customers boosting learning and innovation supporting networking with other ord it is easy to achieve the planned busi What could be improved to make milency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the salore value of the tools. systeps to achieve the result. company/ network. | asks with the ser | vice creates val u | | | 4 4 Answer (0-4) 4 4 4 4 | |
| A2 - A3 A4 Dim.B (Effici | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orgit is easy to achieve the planned busing the saving time of the service) Question The time and resources required to an other conditions are service runs fast enough. The service does not require too man all the functions are beneficial for my The service structure allows flexible & What could be improved to make means and the service structure allows flexible & What could be improved to make means and the functions are beneficial for my | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the salore value of the tools. systeps to achieve the result. company/ network. | asks with the ser | vice creates val u | | Total | 4 4 Answer (0-4) 4 4 4 4 | 4.0 |
| A1 A1 A1 A1 A1 A1 A1 A2 A2 | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orall is easy to achieve the planned busing the service of the service) Question The time and resources required to an and the functions are beneficial for my The service does not require too man all the functions are beneficial for my The service structure allows flexible & What could be improved to make merstandability/simplicity) | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the salay steps to achieve the result. company/ network. | asks with the ser | vice creates val u | | | 4 Answer (0-4) 4 4 4 4 4 | |
| A1 A1 A1 A1 A1 A1 A1 A2 A2 | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orgit is easy to achieve the planned busing the saving time of the service) Question The time and resources required to an other conditions are service runs fast enough. The service does not require too man all the functions are beneficial for my The service structure allows flexible & What could be improved to make means and the service structure allows flexible & What could be improved to make means and the functions are beneficial for my | ganizations iness objectives / perform the talore value of the tool/service? chieve the objectives with the salay steps to achieve the result. company/ network. | asks with the ser | vice creates val u | | Total | 4 Answer (0-4) 4 4 4 4 Answer (0-4) | 4.0 |
| A2 - A3 A4 Dim.B (Efficing B1 B2 B3 B4 A B5 B6 Dim.C (Under Ref # 10 C) | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orall is easy to achieve the planned busing the service of the service) Question The time and resources required to an and the functions are beneficial for my The service does not require too man all the functions are beneficial for my The service structure allows flexible & What could be improved to make merstandability/simplicity) | ganizations iness objectives / perform the talence value of the tool/service? chieve the objectives with the service to the company/network. A fast performance of the tasks. core value of the tool/service? | asks with the ser | rvice. | | Total | 4 Answer (0-4) 4 4 4 4 4 | 4.0 |
| A2 | Question It is easy to understand the objective The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m liency - performance of the service) Question The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m erstandability/simplicity) Question | ganizations iness objectives / perform the table to revalue of the tool/service? chieve the objectives with the say steps to achieve the result. company/ network. It fast performance of the tasks. | asks with the ser | rvice. | | Total | 4 Answer (0-4) 4 4 4 4 Answer (0-4) | 4.0 |

| The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. C5 The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. C6 The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. C7 The output of the service is clear and understandable. C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. | 4.0 | | | |
|--|-----|--|--|--|
| actions required. C6 The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. C7 The output of the service is clear and understandable. C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref # Question | 4.0 | | | |
| C6 required for input. C7 The output of the service is clear and understandable. C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. | 4.0 | | | |
| C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref # Question Answer (0-4) D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. 4 D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. 4 | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. 4 | 4.0 | | | |
| Ref # Question Answer (0-4) D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. 4 D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. 4 D3 The mental workload when using the service is low. 4 | 4.0 | | | |
| D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. | | | | |
| D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. | | | | |
| again. D3 The mental workload when using the service is low. 4 | | | | |
| 20 | | | | |
| | | | | |
| D4 The service rewards the user also personally 4 | | | | |
| D5 I could recommend the service for other people/organizations. 4 | | | | |
| D6 What could be improved to make more value of the tool/service? | | | | |
| Dim.E (Learnability, memorability) Total | 3.8 | | | |
| Ref# Question Answer (0-4) | 3.0 | | | |
| E1 It is easy to start using the service and to perform the main tasks. | | | | |
| E2 It is easy to learn new features/ functionalities. | | | | |
| E3 When coming back to an unfinished task, it is easy to remember / identify the actions needed. 4 | | | | |
| E4 The service offers sufficient training support. 3 | | | | |
| What could be improved to make more value of the tool/service? | | | | |
| E5 | | | | |
| Dim.F (Use preparation & maintenance) Total | 4.0 | | | |
| Ref# Question Answer (0-4) | | | | |
| F1 The take-up of the service does not require high preparation. 4 | | | | |
| F2 Technical installation does not require specific setups or additional downloads. 4 | | | | |
| F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | | | |
| F4 The service can be easily customized/ configured to my environment/ network. 4 | | | | |
| F5 The service can be easily shared in the network. 4 | | | | |
| F6 The service does not require specific knowledge from the users. 4 | | | | |
| The second of th | 4 | | | |
| F8 The service does not require extensive change of business processes. 4 | | | | |
| F9 The service does not require high maintenance. 4 | | | | |
| F10 What could be improved to make more value of the tool/service? | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| Ref# Question Answer (0-4) | | | | |
| G1 The service supports collaboration and interoperability for my network. 4 | | | | |
| G2 The service is suitable for heterogeneous users and different networks. 4 | | | | |
| G3 The service takes into account safety and security. 4 | | | | |
| G4 The service usage does not require high negotiation or complex agreements in the network. | | | | |
| Results Assessment | | | | |
| Functional Dimension | | | | |
| TSS Results | | | | |
| TSS Success | 15 | | | |
| 100 0000039 | | | | |
| TSS Partial TSS Fail | 0 | | | |





| Non-functional Dimension | | | | | | |
|--|---------|--|--|--|--|--|
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | | | |
| | Total | | | | | |
| | 4.0 | | | | | |





TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform | | | | |
|---|-------------------|---|---------------------|--|--|--|--|--|
| | Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| ı | Short Deceription | Visualiza basis dismonthing information should a say part in the Discognibilability Dockboard | | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.

The service offers sufficient guidance

TREASURE style.

The responses to user actions are understandable. The look and feel is self explanatory and follows the

5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{succes} | ss | 10 | | TSS _{partial} | 1 | | | TSS _{fail} | 0 | |
|--|----------------|--------------|-----------------|--|---------------------|-------------------|--------------|--|----------|--|
| Functionalities | | | | Expected Results | | | Passed | Remarks | | |
| Access to the Circ | cularity Web | Platform | | Circularity Web Platform shows log | in page | | YES | | | |
| Login to the Platfo | rm | | | User successfully logged in | | | YES | | | |
| User redirected to | home page | Э | | Home page correctly opened | | | YES | | | |
| Search for "combi | imeter" car | part | | List of relevant car parts shows up | | | YES | | | |
| Select component to visualize M | | | | Modules selection page is shown for | or the selected co | mponent | YES | | | |
| Click the "OPEN D Module" card | DIS" button i | in the "Disa | assemblability | Disassembly dashboard is shown for | or the selected co | mponent | YES | | | |
| Assess componen | nt overall sta | ts section | | All relevant information for the desi | red section is disp | layed | YES | | | |
| Assess "Materials | composition | n" & "Mate | rial Costs" pie | All relevant information for the desi | red section is disp | olayed | | | 1.91 | |
| charts section | | | | | | | PARTIAL | In material cost side the costs are barely v | risible | |
| Assess "Disassem | bly times (n | nanual)" se | ection | All relevant information for the desi | red section is disp | olayed | YES | | | |
| Assess "Disassem | bly metrics' | ' section | | All relevant information for the desi | red section is disp | olayed | YES | | | |
| Insert desired valu | ue into hour | ly cost inp | ut in | The "Disassembly cost (lowerbound | d", "Disassembly o | cost" and | | | | |
| "Disassemblability | metrics" se | ection | | "Disassembly cost (upperbound)" n accordingly | netrics adjust thei | r values | YES | | | |
| Assess "Cobot me | etrics" sectio | n | | All relevant information for the desi | red section is disp | olayed | YES | | | |
| Assess "Feedback | for recycle | rs" section | 1 | All relevant information for the desi | red section is disp | olayed | YES | | | |
| Select different re | cycling rout | tes from th | ie | The feedback displayed changes d | epending on the s | elected route | YES | | | |
| "Disassembly & re | ecycling rou | te" dropdo | own | | | | 159 | | | |
| Press the "Add fee | edback" but | ton | | The add feedback popup appears | | | YES | | | |
| Insert some feedback" button | ack text, the | en press th | ne "Add | The feedback is correctly inserted froute | for the currently s | elected recycling | YES | | | |
| Assess "componer | | on priority | vs | All relevant information for the desi | red section is disp | olayed | YES | | | |
| disassembly time" | | | | | | | | | | |
| Non-Function | | | | | | | | | | |
| Dim.A (Effectiven | | ulness to | the network/co | ompany) | | | | Total | 2.7 | |
| Ref # Ques | tion | | | | | | | Answ | er (0-4) | |
| | | | | and benefit of the service to my | | | | | 3 | |
| The outcome of the service is important / useful for the company/network. The service creates valicompany & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations | | | | | | | | 2 | | |
| A3 It is e | easy to ach | nieve the | planned busi | ness objectives / perform the tas | sks with the serv | rice. | | | 3 | |
| Mha Wha | t could be | improve | ed to make m | ore value of the tool/service? | | | | | | |
| A4 | | | | | | | | | | |
| Dim.B (Efficiency | / - performa | ance of th | e service) | | | | | Total | 3.4 | |
| Ref # Ques | tion | | | | | | | Answ | er (0-4) | |
| B1 The t | time and re | esources | required to a | chieve the objectives with the se | rvice are reasor | nable/moderate. | | | 4 | |
| | service rur | | • | | | | | | 4 | |
| | | | | y steps to achieve the result. | | | | | 4 | |
| - | | | | | | | | | 3 | |
| - | | | | company/ network. | | | | | - | |
| What | | | | fast performance of the tasks. ore value of the tool/service? | | | | | 2 | |
| B6 | | | | | | | | | | |
| Dim.C (Understar | ndability/si | mplicity) | | | | | | Total | 3.3 | |
| Ref # Ques | tion | | | | | | Answer (0-4) | | | |
| C1 The | service str | ucture an | d logic is eas | y and self-clear to understand ar | nd recognizable. | | | | 2 | |
| C2 The | concepts a | re under | standable for | my organization and in line with | TREASURE terr | minology | | | 3 | |
| 5- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | | |

3

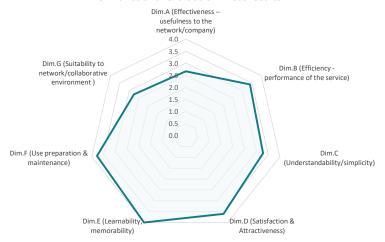
4

| Discription The service is attractive to the user. If eal satisfied and comfortable when using the service. 4 | | | 5.11 | | | | |
|---|------------|---|------------------|--|---------------|--|--|
| Co Required for input. The corporate is ample enough for practical use. The tasks do not look complex to perform. It is clear what is equipment of input. The corporation of the service is clear and understandable. What could be improved to make more value of the tool/service? Total 3.6 What could be improved to make more value of the tool/service? Total 3.6 Loan stop. Answer(0.4) Total 4.0 Loan stop. Answer(0.4) Loan stop. the control of the service, for campie by passing\$ continuing, canceling, saving the status and starting again. Loan stop. the control of the service, for campie by passing\$ continuing, canceling, saving the status and starting again. The mental varishod when using the service is low. 4. 4. 4. 4. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6 | C5 | | ose of the | 3 | | | |
| To required for input. A required for input. A What could be improved to make more value of the tool/service? What could be improved to make more value of the tool/service? Total 3.0 Asswer (0-4) Asswer (0-4) Total 4 Asswer (0-4) Can be presented by the control of the service, for example by pausing & continuing, canceling, saving the status and starting again. B In mental variable when using the service is tow. 4 103 The mental variable when using the service is tow. 4 104 The service rewards the user also personally 3 Total 3 Total 4 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A | | | hat is | | | | |
| To the output of the service is clear and understandable. A Wat could be improved to make more value of the tool/service? Country | C6 | | ilat is | 4 | | | |
| Call What could be improved to make more value of the tool/service? Total | C7 | ' ' | | 4 | | | |
| District Content | | ' | | | | | |
| Ref # Countries Assert (0.4) DT The earnote is attractive to the user. Heat satisfied and comfortable when using the service. 20 Lean keep the control of the service, for example by pausing & continuing, canceling, saving the status and starting policy in the control of the service, for example by pausing & continuing, canceling, saving the status and starting policy in the control of the service of the service is by. 21 The remartal workfload when using the service is by. 22 The remartal workfload when using the service is by. 23 The remartal workfload when using the service is by. 24 The service remarks the user also personally. 25 Louds recommend the service for other popularizations. 26 The service remarks the user value of the todistervice? 27 The service and to personal the service and to personal the service and to personal the main table. 26 It is easy to start using the service and to personal the main tables. 27 It is easy to start using the service and to personal the main tables. 28 It is easy to start using the service and to personal the main tables. 4 The service offers sufficient training support. 4 The service offers sufficient training support. 5 What could be improved to make more value of the todiservice? 28 The service offers sufficient training support. 29 The foliation of the service of the service and to personal the service of the servi | C8 | | | | | | |
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| DT The service is affactive to the user. I feet satisfied and comfortable when using the service. Case | Ref# | Question | • | Answei | r (0-4) | | |
| Lank keep the control of the service, for example by pausing\$ continuing, canceling, saving the status and starting applications. 4 | | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | | | |
| Display | | | is and starting | | | | |
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| Dim.F (Use preparation & maintenance) Total 3.8 | | 0 11 | | | | | |
| Ref # Question | E5 | · | | | | | |
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| G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. G4 The service usage does not require high negotiation or complex agreements in the network. C8 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C8 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not require high negotiation or complex agreements in the network. C9 The service usage does not requ | Ref# | | | | | | |
| G3 The service takes into account safety and security. G4 The service usage does not require high negotiation or complex agreements in the network. Results Assessment Functional Dimension TSS Results TSS Success 10 TSS Partial | _ | 1 , , , | | | | | |
| The service usage does not require high negotiation or complex agreements in the network. Results Assessment Functional Dimension TSS Success TSS Success 10 TSS Partial | _ | · · | | | | | |
| Results Assessment Functional Dimension TSS Results TSS Success 10 TSS Partial 1 | G3 | The service takes into account safety and security. | | 2 | | | |
| Results Assessment Functional Dimension TSS Results TSS Success 10 TSS Partial 1 | G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | | |
| Functional Dimension TSS Results TSS Success 10 TSS Partial 1 | | | | | | | |
| TSS Results | | | | | | | |
| TSS Success 10 TSS Partial 1 | runctional | Dilliension | | 700 B | aquita | | |
| TSS Partial 1 | TOO Cure | | - | 155 Re | 10 | | |
| | | | <u> </u> | | 10 | | |
| 199 L9II | | 41 | <u> </u> | | 1 | | |
| | 199 Fall | | | | 0 | | |





| Non-functional Dimension | | |
|--|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 | |
| Dim.B (Efficiency - performance of the service) | 3.4 | |
| Dim.C (Understandability/simplicity) | 3.3 | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 3.8 | |
| Dim.G (Suitability to network/collaborative environment) | 2.8 | |
| | Total | |
| | 3.4 | |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| Test Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|---|---------------------|--|--|--|
| Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description | Assess and export specific information about a car part disassembly time from the Disassemblahility Dashboard | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

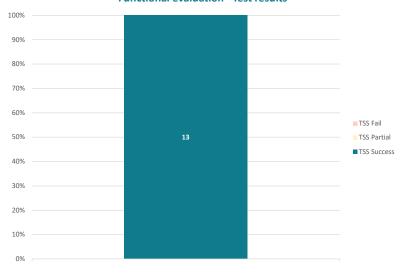
NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

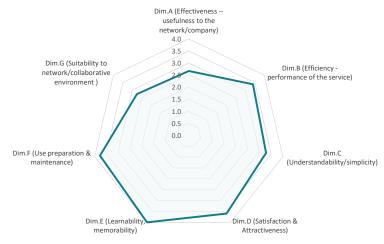
| TS | S _{success} | 13 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
|-----------------------------|---|-------------|-----------------|--|--------------------------|--|------------|---------------------|--------------|-----|
| Functional | ities | | | Expected Results | | | Passed | Remarks | | |
| Access to the | ne Circularity Web | Platform | | Circularity Web Platform sho | ws login page | | YES | | | |
| Login to the | Platform | | | User successfully logged in | | | YES | | | |
| User redire | cted to home page | • | | Home page correctly opened | | | YES | | | |
| Search for ' | 'combimeter" car p | oart | | List of relevant car parts show | vs up | | YES | | | |
| Select com | ponent to visualize | 1 | | Modules selection page is sh | own for the selected co | mponent | YES | | | |
| Click the "C | PEN DIS" button in | n the "Disa | assemblability | Disassembly dashboard is sh | own for the selected co | mponent | YES | | | |
| Navigate to | the "Disassembly | times (mai | nual)" section. | "Disassembly times (manual) button next to "Level 1" and ' | | has an info | YES | | | |
| Press the in | fo button next to the | ne "Level 2 | 2" metric | Disassembly time (level 2) pa | ige is correctly shown | | YES | | | |
| Assess the | parts table | | | Parts table correctly displays | all the relevant informa | ition | YES | | | |
| Press the "I table heade | nfo" button next to | the "Diffic | ulty level" | "Difficulty level calculation" p | opup is correctly show | ١ | YES | | | |
| Assess the | difficulty level table | Э | | The difficulty level table cont | ains the proper informa | tion | YES | | | |
| | Close" ("X") button | | | The difficulty level popup clo | ses | | YES | | | |
| | Export" button | | | Data are exported successfu | | | YES | | | |
| | ctional Evalua | tion | | | , | | 120 | | | |
| | ectiveness usefi | | the network/c | ompany) | | | | Total | | 2.7 |
| Ref# | Question | unicos to | the network, | ompany) | | | | 1000 | Answer (0-4) | 2.1 |
| A1 | | loretand | the objective | and benefit of the service | to my organization/n | etwork | | | 3 | |
| B1 B2 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations A3 It is easy to achieve the planned business objectives / perform the tasks with the service. A4 What could be improved to make more value of the tool/service? Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required to achieve the objectives with the service are reasonable/moderate. | | | | | | Total | 3 Answer (0-4) 4 4 | 3.4 | |
| В3 | The service doe | es not rec | uire too man | y steps to achieve the resu | lt. | | | | 4 | |
| B4 | | | | company/ network. | | | | | 3 | |
| B5 | | | | fast performance of the ta | sks. | | | | 2 | |
| В6 | | | | ore value of the tool/serv | | | | | | |
| Dim C (Una | L derstandability/sir | mnlicity) | | | | | | Total | | 2.2 |
| | | присиу) | | | | | | Total | A (0.4) | 3.3 |
| Ref# C1 | Question The service stru | ucture an | d logic is eas | y and self-clear to understa | and and recognizable | <u>. </u> | | | Answer (0-4) | |
| C2 | The concepts a | re unders | standable for | my organization and in line | with TREASURE ter | minology | | | 3 | |
| C3 | The service offe | ers suffici | ent guidance | | | | | | 3 | |
| C4 | The responses TREASURE styl | | ctions are un | derstandable. The look and | feel is self explanato | ory and follows th | е | | 4 | |
| C5 | The support to actions required | | processes / t | asks is clear. The user can | understand his/her r | ole and the purp | ose of the | | 3 | |

| | The comice is simple enough for practical use. The topic do not look compley to perform it is clear w | not in | | | |
|------------|---|-----------------|--------------------------------|----------------------|-----|
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w required for input. | ial is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| <u> </u> | What could be improved to make more value of the tool/service? | • | | | |
| C8 | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.6 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statu again. | s and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | • | | | |
| DO | There could be a dedicated page to add all the necessary information about t | he companies co | sts and in the necessary place | ces it can be adjust | ed |
| Dim.E (Lea | rnability, memorability) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.8 |
| Ref# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. | nade | | 4 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 2 | |
| F5 | The service can be easily shared in the network. | | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | Mobile phone com | oatability | | | |
| | tability to network/collaborative environment) | | Total | | 2.8 |
| Ref# | Question | <u></u> | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 3 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 2 | |
| G3 | The service takes into account safety and security. | | | 2 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| | Assessment | | | | |
| Functional | Dimension | | | | |
| | | <u> </u> . | | TSS Results | |
| TSS Succ | | | | | 13 |
| TSS Partia | al | | | | (|
| | | | | | |





| | ı | | | | | |
|--|---------|--|--|--|--|--|
| Non-functional Dimension | | | | | | |
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 | | | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | | | |
| Dim.C (Understandability/simplicity) | 3.3 | | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.8 | | | | | |
| | Total | | | | | |
| | 3.4 | | | | | |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

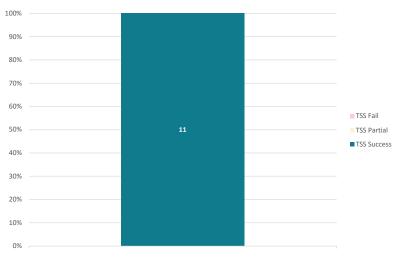
| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|-------------------|--|---------------------|--|--|--|--|
| Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Chart Deceription | Socializa hasis and design information should appropriate the Eap Design Dockhoord | | | | | |

Test Scrint

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 |
|---|---------------------------|-----------------|--|--|-------------------|----------------|--|--|
| Functionalities | | | Expected Results | | | Passed | Remarks | |
| Access to the Circularit | Web Platform | า | Circularity Web Platform shows log | in page | | YES | | |
| Login to the Platform | | | User successfully logged in | | | YES | | |
| User redirected to home | page | | Home page correctly opened | | | YES | | |
| Search for "combimeter | " car part | | List of relevant car parts shows up | | | YES | | |
| Select component to vis | ualize | | Modules selection page is shown for | or the selected co | mponent | YES | | |
| Click the "OPEN ECO" | utton in the "E | co-Design | Eco-design dashboard is shown for | the selected com | ponent | V/50 | | |
| Module" card | | | | | | YES | | |
| Assess component over | all stats section | n | All relevant information for the desi | red section is disp | layed | YES | | |
| Assess "Top 5 metals" s | ection | | All relevant information for the desi | red section is disp | layed | YES | | |
| Select an option from the | e metals dropo | down on the | All relevant information for the desi | red section updat | es accordingly | V/50 | | |
| right of the section | | | | | | YES | | |
| Hover the mouse over t thermodynamic rarity" s | | , | A tooltip explaining the sub-title me | aning appears | | YES | | |
| Assess the "Plastic char | | | All relevant information for the plas | tice characterizati | on nie chart is | | | |
| Assess the Flastic Chai | acterization si | ection | · · | splayed, the plastic characterization KPIs are displayed correctly | | YES | | |
| Assess the "Disassembl | | | The appropriate disassemblability r | netrics are shown | | YES | | |
| Assess the "Eco-Design | recommendat | tions" | The proper eco-design recommend with the metrics above | lations are display | ed coherently | YES | | |
| Assess the "Semantic S section | ocial Network | Analysis" | The SSNA tool description is clear | and understandab | ble | PARTIAL | | |
| Click the "Open docum | entation" butto | n | The SSNA tool documentation ope | ns in a new tab | | YES | | |
| Click the "Open SSNA" | ool" button | | The SSNA tool opens in a new tab | | | YES | | |
| Non-Functional Ev | Non-Functional Evaluation | | | | | | | |
| Dim.A (Effectiveness - | usefulness to | o the network/c | ompany) | | | | Total | 3.0 |
| Ref # Question | | | | | | | Δnew | ver (0-4) |
| | | d the objective | and banefit of the convice to my | organization/na | tuerk | | | 3 |
| | | | e and benefit of the service to my | | | , | | 3 |
| I I | | | tant / useful for the company/net | work. The servi | ce creates value | tor my | | |
| company | &network, for | r example by | | | | | | |
| - saving c | | | | | | | | |
| - increasir | g income | | | | | | | |
| | ne, accelerat | ting processes | i | | | | | |
| A2 - decreas | ng risks | | | | | | | 3 |
| - improvin | | | | | | | | |
| - sharing | nformation | | | | | | | |
| - attracting | customers | | | | | | | |
| - boosting | learning and | I innovation | | | | | | |
| | | g with other or | | | | | | |
| | | | iness objectives / perform the tas | ks with the serv | ice. | | | 3 |
| A4 What cou | ld be improv | ed to make m | ore value of the tool/service? | | | | | |
| Λτ. | | l | Infortunately our company are n | ot direct related | to the car indus | try, so we can | nnot apply this platform in its full poten | tial |
| Dim.B (Efficiency - per | formance of t | he service) | | | | | Total | 3.8 |
| Ref # Question | | | | | | | Answ | ver (0-4) |
| | ind resource | s required to a | chieve the objectives with the se | rvice are reason | able/moderate | | | 4 |
| - | e runs fast e | | | | | | | 4 |
| | | | by stone to achieve the requit | | | | | 4 |
| | | | ny steps to achieve the result. | | | | | |
| | | | company/ network. | | | | | 4 |
| B5 The service structure allows flexible & fast performance of the tasks. 3 | | | 3 | | | | | |
| B6 | | | ore value of the tool/service? cathways to find desired result. F | or example, use | visual search o | ptions in case | s, where the user do not have direct k | nowledge of the technical part name, w |
| Dim.C (Understandabi | | | , | p - 7 - 7 - 7 | | | Total | 3.7 |
| Ref # Question | J | | | | | | | ver (0-4) |
| | o etrueture e | nd logic is see | y and self clear to understand a | nd roopgnizeble | | | Allsw | 4 |
| | | | sy and self-clear to understand a | | | | | 4 |
| | | | my organization and in line with | I KEASUKE Terr | ninology | | | |
| | | cient guidance | | | | | | 3 |
| C4 The respo | | actions are un | derstandable. The look and feel | s self explanato | ry and follows th | e | | 4 |
| | | | | | | | | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the put | roose of the | | | |
|------------|--|--------------------|-------|------------------------|-----|
| C5 | actions required. | pose of the | | 3 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | what is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| <u> </u> | sfaction & Attractiveness) | | Total | | 4.0 |
| Ref# | Question | <u></u> | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta again. | tus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | nability, memorability) | | Total | | 4.0 |
| | Question It is easy to start using the service and to perform the main tasks. | | | Answer (0-4) 4 | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | Total | | 3.8 | |
| Ref# | Question | 1 | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | / made | | 4 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | I'm not convinced that it is possible to find a car part without knowing it's technical name. So | , the user must ha | | er search options coul | |
| | ability to network/collaborative environment) | | Total | | 3.5 |
| | Question The service supports collaboration and interoperability for my network. | | | Answer (0-4) | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | |
| G3 | The service takes into account safety and security. | | | 4 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| Results A | ssessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | 988 | | | TSS Results | |
| TSS Partia | | | | | 0 |
| TSS Fail | | | | | 0 |
| | | | | | • |



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.7 | | | |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform | | | |
|-----------------|---|---------------------|--|--|--|--|
| Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| 01 (D : :: | | | | | | |

Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)
 Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| ISS _{success} | 13 | 155 _{partial} | | 155 _{fail} | U |
|---|---------------------------|--|-----------------|---------------------|---|
| Functionalities | | Expected Results | Passed | Remarks | |
| Access to the Circularity We | eb Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | | User successfully logged in | YES | | |
| User redirected to home page | ge | Home page correctly opened | YES | | |
| Search for "combimeter" car | r part | List of relevant car parts shows up | YES | | |
| Select component to visualize | ze | Modules selection page is shown for the selected compon | ent YES | | |
| Click the "OPEN ECO" butto | n in the "Eco-Design | Eco-design dashboard is shown for the selected compone | nt YES | | |
| Navigate to the "By weight" s metals" section | sub-section of the "Top 5 | "By weight" sub-section of the "Top 5 metals" section is pr has a "Details" button above the corresponding stacked be | | | |
| Press the "Details" button ab stacked bar chart | pove the corresponding | "Metals by weight" page is correctly shown | YES | | |
| Select a filtering method from next to "Show" | m the dropdown menu | Metals table correctly displays all the relevant information for the user selection | accounting | | |
| Select a filtering method from next to "Assess" | m the dropdown menu | Metals table correctly displays all the relevant information for the user selection | accounting | | |
| Assess the "Metals by weigh | nt" table | Metals table correctly displays all the relevant information selected filtering methods | for the YES | | |
| Hover the mouse over the in over the total weight", "Supp column titles | | A tooltip explaining the table column title meaning appear | YES | | |
| Press the "Export" button | | Data are exported successfully in ".xlsx" format, following filters | the applied YES | | |
| Man Francisco et Francis | | | | | |

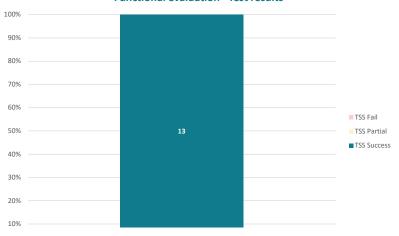
| Non- | Funct | ional | Eval | luat | ion | |
|------|-------|-------|------|------|-----|--|
| | | | | | | |

| DIM.A (ETTE | ectiveness usefulness to the network/company) | | Total 3.3 | |
|-------------|---|--------|-----------|---------|
| Ref# | tion | | Answe | r (0-4) |
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | | | ! |
| | The outcome of the service is important / useful for the company/network. The service creates value | for my | | |
| | company &network, for example by | | | |
| | - saving costs | | | |
| l . | - increasing income | | | |
| l . | - saving time, accelerating processes | | | |
| A2 | - decreasing risks | | 3 | 3 |
| | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | 3 |

| A4 | What could be improved to make more value of the tool/service? | | | | | |
|-------------|---|--|-------|----------|--|--|
| | | | | | | |
| Dim.B (Effi | ciency - performance of the service) | | Total | 4.0 | | |
| Ref# | Question Answer (0-4) | | | | | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | | 4 | | |
| B2 | The service runs fast enough. | | 4 | 4 | | |
| В3 | The service does not require too many steps to achieve the result. | | 4 | 4 | | |
| B4 | 4 All the functions are beneficial for my company/ network. 4 | | | 4 | | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 | | |
| В6 | What could be improved to make more value of the tool/service? | | | | | |
| D0 | 6 | | | | | |
| Dim.C (Und | lerstandability/simplicity) | | Total | 4.0 | | |
| Ref# | Question | | Answe | er (0-4) | | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 4 | | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | 4 | | |

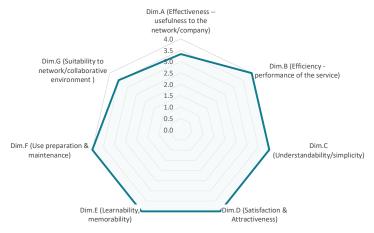
| C3 | The service offers sufficient guidance | Γ' | | 4 | |
|--|--|--------------------|-------|---|-----|
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follow | s the | | 4 | |
| C4 | TREASURE style. | 4 | | 4 | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the pactions required. | ourpose of the | | 4 | |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | ar what is | | | |
| C6 | required for input. | | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
|)im D (Sa | tisfaction & Attractiveness) | | Total | | 4.0 |
| ef# | Question | | Total | Answer (0-4) | 4.0 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | <u>-</u> - | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the s | tatus and starting | | 4 | |
| DZ | again. | | | + | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| im F (Le | arnability, memorability) | | Total | | 4.0 |
| ef # | Question | i | Total | Answer (0-4) | 4.0 |
| E1 | It is easy to start using the service and to perform the main tasks. | - | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| LO | | | | | |
| | | | | | |
| | preparation & maintenance) | | Total | | 4.0 |
| ef# | Question | | Total | Answer (0-4) | 4.0 |
| ef# F1 | Question The take-up of the service does not require high preparation. | | Total | 4 | 4.0 |
| ef # F1 F2 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | silv made | Total | 4 4 | 4.0 |
| ef#F1 | Question The take-up of the service does not require high preparation. | sily made | Total | 4 | 4.0 |
| F1 F2 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas | sily made | Total | 4 4 | 4.0 |
| F1 F2 F3 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. | ily made | Total | 4 4 4 | 4.0 |
| F1 F2 F3 F4 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. | sily made | Total | 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 | I Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | sily made | Total | 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 F8 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | sily made | Total | 4 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | sily made | Total | 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 F8 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | sily made | Total | 4 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | sily made | | 4 4 4 4 4 4 4 | |
| ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Su | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | iily made | Total | 4 4 4 4 4 4 4 4 | 3.5 |
| ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Su | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Question | iily made | | 4 4 4 4 4 4 4 | |
| ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Su | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | sily made | | 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Su | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | sily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suef # G1 G2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | sily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Suref# G1 G2 G3 G4 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | sily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 G2 G3 G4 cesults | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Question Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment | iily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suref # G1 G2 G3 G4 Results | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | iily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| ef# F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 G2 G3 G4 Results unctiona | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be eas available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Question Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | iily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim. G (Suref # G1 G2 G3 G4 Results | Question | iily made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |





| 0% | | | |
|----|--|--|--|
| | | | |

| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform |
|-------------------|--|--------------------------------------|--|
| Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Visualize basic recycling information abou | ut a car part in the Recyclability D | ashboard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

The responses to user actions are understandable. The look and feel is self explanatory and follows the

TREASURE style.

| | rectly reported in its dedicated card and is displayed in the appro | opriate format | | |
|---|--|----------------|--|---|
| TSS _{success} 11 | TSS _{partial} 1 | | TSS _{fail} | 0 |
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN REC" button in the "Disassemblabilit Module" card | Recyclability dashboard is shown for the selected component | YES | | |
| Assess component overall stats section | All relevant information for the desired section is displayed | YES | | |
| Assess "Optimization objective of recycling" section | All relevant recycling optimization objectives is displayed | | | |
| a doctor opining accion. | 7 iii relevani reeyeming epiininzalien esjeetivee ie alepiayea | YES | | |
| Assess "General composition build-up" pie chart | All relevant information for the desired section is displayed | YES | | |
| section | All and a superior for the superior described and the superior described | - | | |
| Assess "Recycling rates" section | All relevant information for the desired section is displayed with respect to the current recyclability level | YES | | |
| Select a different recycling level using the dropdown | The recycling rates and processing routes change accordingly | | | |
| menu at the top of the section | The recycling rates and processing routes change accordingly | YES | | |
| Assess the "Individual recycling rates" sub-section | All relevant information for the desired sub-section is displayed with | | | |
| | respect to the current recyclability level and processing route | YES | | |
| Select a different processing route using the | The individual recycling rates flower chart updates accordingly | PARTIAL | Shows that steel is no high quality produc | † |
| dropdown menu next to the "Details" button. | | PARTIAL | Shows that steer is no high quality produc | i.t |
| Assess "Feedback for recyclers" section | All relevant information for the desired section is displayed | YES | | |
| | | 1.20 | | |
| Press the "Add feedback" button | The add feedback popup appears | YES | | |
| | The feedback is correctly inserted into the feedbacks table | - | | |
| Insert some feedback text, then press the "Add | The locality is contoonly incorted into the locality table | YES | | |
| Insert some feedback text, then press the "Add feedback" button | | | | |
| | | | | |
| feedback" button | company) | | Total | 3.7 |
| feedback" button Non-Functional Evaluation | company) | | | 3.7 ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question | | | Answ | |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question It is easy to understand the objective | e and benefit of the service to my organization/network. | e for my | Answ | ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question It is easy to understand the objective | e and benefit of the service to my organization/network. | e for my | Answ | ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objective of the service is imposed. | e and benefit of the service to my organization/network. | e for my | Answ | ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is importance of the service is importance of the service is importance. | e and benefit of the service to my organization/network. | e for my | Answ | ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is important company &network, for example by - saving costs | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | e for my | Answ | ver (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objective company & network, for example by - saving costs - increasing income | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | e for my | Answ | ver (0-4) |
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| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is impore company & network, for example by - saving costs - increasing income - saving time, accelerating processe - decreasing risks | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | e for my | Answ | er (0-4) 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question The outcome of the service is important company &network, for example by - saving costs - increasing income - saving time, accelerating processe - decreasing risks - improving quality | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | e for my | Answ | er (0-4) 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is impore company &network, for example by - saving costs - increasing income - saving time, accelerating processe - decreasing risks - improving quality - sharing information | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | e for my | Answ | er (0-4) 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question The outcome of the service is important company & network, for example by - saving costs - increasing income - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates values In a service creates value or the company/network or the service creates values. | e for my | Answ | er (0-4) 4 |
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| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is impore company &network, for example by exaving costs increasing income exaving time, accelerating processe edecreasing risks improving quality exaring information exattracting customers expositing learning and innovation exupporting networking with other or tile is easy to achieve the planned but the supporting to the planned but the planned but the supporting to the planned but the | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value In a service cre | e for my | Answ | er (0-4) 4 3 |
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| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is impore company &network, for example by exaving costs increasing income exaving time, accelerating processe exactly decreasing risks improving quality examing information exattracting customers expositing learning and innovation exupporting networking with other or A3 It is easy to achieve the planned but what could be improved to make referenced. | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value In a service cre | e for my | Answ | er (0-4) 4 3 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness of the service is imported to the service is import | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value In a service cre | e for my | Total Answ | 4 3 3 3.8 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness of the service is imported to the service is import | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interval to the ser | e for my | Total Answ | 3 4 3 3 4 3.8 er (0-4) |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is important company &network, for example by - saving costs - increasing income - saving time, accelerating processe A2 decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other of A3 It is easy to achieve the planned bus A4 What could be improved to make ref Dim.B (Efficiency - performance of the service) Ref # Question The time and resources required to its | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations siness objectives / perform the tasks with the service. Interpretation service of the tool/service? | e for my | Total Answ | 3 4 3.8 er (0-4) 4 4 4 4 4 4 4 6 6 7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is important company & network, for example by example of the service is important company & network, for example by example of the service is important company & network, for example by example of the service of the service is important company & network, for example by example of the service of the se | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations siness objectives / perform the tasks with the service. Interpretation of the tool/service? Interpretation of the tool/service? | e for my | Total Answ | 3 4 3.8 er (0-4) 4 4 4 4 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is important company &network, for example by example of the service is important company &network, for example by example of the service is important company &network, for example by example of the service is important company &network, for example by example of the service of the servic | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations | e for my | Total Answ | 3 4 3.8 er (0-4) 4 4 4 4 4 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness and the service is imported to the service increasing income - saving time, accelerating processe - saving time, accelerating processe - saving time, accelerating time, accelerating processe - saving time, accelerating time, accelerating processe - saving time, accelerating processe - saving time, accelerating time, accelerating processe - saving time, accelerating time, accele | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation | e for my | Total Answ | 4 3.8 er (0-4) 4 4 4 4 4 4 4 4 3 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiv The outcome of the service is important company &network, for example by example of the service is important company &network, for example by example of the service is important company &network, for example by example of the service is important company &network, for example by example of the service of the servic | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation | e for my | Total Answ | 4 3.8 er (0-4) 4 4 4 4 4 4 4 4 3 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness usefulness to the network/ The outcome of the service is imposed to saving costs increasing income saving time, accelerating processe decreasing risks improving quality sharing information attracting customers boosting learning and innovation supporting networking with other of the service say to achieve the planned but the service of the service) Ref # Question B1 The time and resources required to service of the | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation | e for my | Total Answ | 4 3 4 3.8 err (0-4) 4 4 4 4 4 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness usefulness to the network/ The outcome of the service is important of the service | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation | e for my | Total Answ | 3 3 3.8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness usefulness to the network/ The outcome of the service is important of the service of the service is important of the service of the | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation Interpretati | e for my | Total Answ Total Answ | 3 3 3 4 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 5 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness required is important of the service of the servi | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations | e for my | Total Answ Total Answ | 3 3 4 4 3 3 4 4 3 3 4 4 4 4 4 4 4 4 4 4 |
| feedback" button Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/ Ref # Question A1 It is easy to understand the objectiveness required is important of the service of the servi | e and benefit of the service to my organization/network. Intant / useful for the company/network. The service creates value Intant / useful for the company/network. The service creates value Interpretations Interpretation In | e for my | Total Answ Total Answ | 3 3 3 4 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 5 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 |

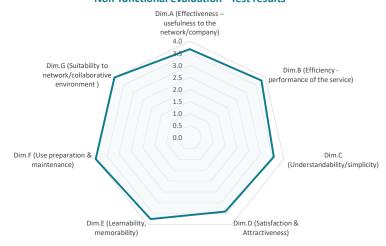
3

| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the pur actions required. | oose of the | | 3 | |
|------------|---|-----------------|-------|--------------|-----|
| — | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear v | vhat is | | | |
| C6 | required for input. | | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| Dim D (Sat | sfaction & Attractiveness) | | Total | | 2.4 |
| Ref # | Question | | TOTAL | Answer (0-4) | 3.4 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | |
| - 101 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the state | is and starting | | 3 | |
| D2 | again. | us and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | rnability, memorability) | <u> </u> | Total | | 3.8 |
| Ref# | Question | <u>i</u> - | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 3 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim F (Use | preparation & maintenance) | | Total | | 4.0 |
| Ref # | Question | | Total | Answer (0-4) | 4.0 |
| F1 | | - | | 4 | |
| F2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | - | | 4 | |
| FZ | The data needed by the service exist in my company/network in the proper format and can be easily | made | | | |
| F3 | available for the service. | made | | 4 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | |
| F5 | The service can be easily shared in the network. | | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | | 4 | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| Dim.G (Sui | ability to network/collaborative environment) | | Total | | 4.0 |
| Ref# | Question | · | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | |
| G3 | The service takes into account safety and security. | | | 4 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| Results / | Assessment | | | | |
| | Dimension | | | | |
| | | I | | TSS Results | |
| TSS Succ | ess | | | | 11 |
| TSS Partia | | | | | 1 |
| TSS Fail | | | | | 0 |
| | | | | | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.6 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.7 |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform |
|-------------------|--|---------------------------------------|--|
| Actors involved | EuroLCDs | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Assess specific information about individu | ual recycling rates for a car part in | the Recyclability Dashboard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

required for input.

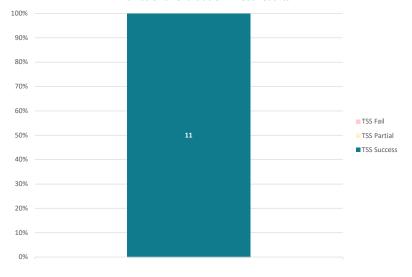
The output of the service is clear and understandable.

What could be improved to make more value of the tool/service?

- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.
- 6. Click the "Details" button net to the recycling routes dropdown menu.
- 7. Assess that all the recycling rates for the selected recycling level and recycling route are present and correct

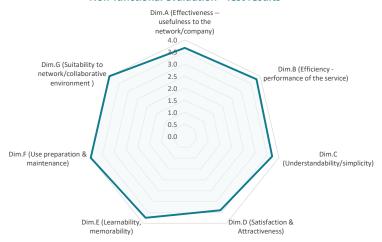
| 7. Assess | s that all the recycling rates for the sele- | cted recycling level and recycling route are present and correct. | | | |
|-------------|--|---|------------|---------------------|---------------|
| TS | SS _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functiona | alities | Expected Results | Passed | Remarks | |
| Access to | the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to th | ne Platform | User successfully logged in | YES | | |
| User redire | ected to home page | Home page correctly opened | YES | | |
| Search for | "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select con | mponent to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the " | OPEN REC" button in the "Recyclability | Recyclability dashboard is shown for the selected component | YES | | |
| Navigate to | o the "Individual recycling rates" sub- | "Individual recycling rates" sub-section of the "Recycling rates" | | | |
| section of | the "Recycling rates" section | section is present and has a "Details" button next to the recycling | YES | | |
| | | routes dropdown menu | | | |
| | "Details" button next to the recycling routes | "Individual recycling rates" page is correctly shown | YES | | |
| dropdown | | | 0 | | |
| | ecyclability level from the top-right | Recycling rates table correctly displays all the relevant information | YES | | |
| dropdown | | accounting for the user selection | | | |
| | ecycling route from the second dropdown | Recycling rates table correctly displays all the relevant information | YES | | |
| menu on th | • | accounting for the user selection | | | |
| Assess the | e "Rates by recycling route" table | Recycling rates table correctly displays all the relevant information for | YES | | |
| | | the selected recyclability level and recycling route | | | |
| | nctional Evaluation | | | | |
| Dim.A (Eff | fectiveness usefulness to the network/o | company) | | Total | 3.7 |
| Ref# | Question | | | Answe | er (0-4) |
| A1 | It is easy to understand the objective | e and benefit of the service to my organization/network. | | | 4 |
| | The outcome of the service is impo | rtant / useful for the company/network. The service creates value | e for my | | |
| | company &network, for example by | | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | 3 | | | |
| A2 | - decreasing risks | | | , | 3 |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| A3 | - supporting networking with other or | iness objectives / perform the tasks with the service. | | | 4 |
| AS | | , | | <u> </u> | + |
| A4 | What could be improved to make n | fore value of the tool/service? | | | |
| | 1 | | | | |
| <u> </u> | ficiency - performance of the service) | | | Total | 3.8 |
| Ref# | Question | | | Answe | er (0-4) |
| B1 | The time and resources required to a | schieve the objectives with the service are reasonable/moderate. | | | 4 |
| B2 | The service runs fast enough. | | | 4 | 4 |
| В3 | The service does not require too man | ny steps to achieve the result. | | | 4 |
| B4 | All the functions are beneficial for my | | | | 3 |
| B5 | The service structure allows flexible | • • | | 1 | 4 |
| | What could be improved to make n | • | | | |
| В6 | The state of the s | | | | |
| Dim C (Un | nderstandability/simplicity) | | | Total | 3.7 |
| Ref# | | | | | er (0-4) |
| | Question | by and self-clear to understand and an extra trib | | | er (0-4) 4 |
| C1 | · · · · · · · · · · · · · · · · · · · | sy and self-clear to understand and recognizable. | | | |
| C2 | <u> </u> | my organization and in line with TREASURE terminology | | | 4 |
| C3 | The service offers sufficient guidance | | | 4 | 4 |
| C4 | | derstandable. The look and feel is self explanatory and follows the | ne | | 3 |
| <u> </u> | TREASURE style. | | | | |
| C5 | | tasks is clear. The user can understand his/her role and the purp | ose of the | 1 | 3 |
| | actions required. | | | ` | |
| C6 | 1 | ctical use. The tasks do not look complex to perform. It is clear w | hat is | | 4 |
| | required for input | | | | |

| Nim D (Sat | I isfaction & Attractiveness) | | Total | | 3.4 |
|-------------|---|--|-------|---------------|-----|
| Ref# | Question | ' | TOTAL | Answer (0-4) | 3.4 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | · | | 3 | |
| וט | Ţ | tue and starting | | <u> </u> | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta again. | itus and starting | | 4 | |
| D3 | | | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 D5 | The service rewards the user also personally | | | 3 | |
| Do | I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | | ა | |
| D6 | what could be improved to make more value of the tool/service? | | | | |
| Dim E (Los | I rnability, memorability) | | Total | | 2.0 |
| Ref# | Question | ' | TOTAL | Answer (0-4) | 3.8 |
| | | · | | Allswer (0-4) | |
| E1 E2 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | | 3 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| im F /I lee | preparation & maintenance) | | Total | | 4.0 |
| Ref# | Question | - : | Total | Answer (0-4) | 4.0 |
| F1 | The take-up of the service does not require high preparation. | · - | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| ГД | The data needed by the service exist in my company/network in the proper format and can be easily | v made | | т | |
| F3 | available for the service. | y made | | 4 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | |
| F5 | The service can be easily shared in the network. | | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | | 4 | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | · | |
| F10 | | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | | Total | | 4.0 |
| Ref# | Question | <u> </u> | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | |
| G3 | The service takes into account safety and security. | | | 4 | |
| | | <u> </u> | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| Results A | Assessment | | | | |
| unctional | Dimension | | | | |
| | | | | TSS Results | |
| TSS Succ | ess | | | | |
| SS Partia | al | | | | |
| SS Fail | | | | | • |



| N | on-functional Dimension |
|---|-------------------------|
| | Results |
| | |

| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
|--|-------|
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case References

| ı | Test Case ID | CWP_DIS_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|----|-----------------|---|---------------------|---|
| | Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| -1 | | | • | |

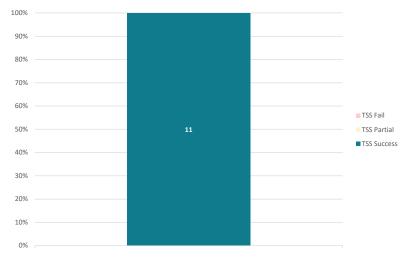
Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.
- 5. Click the "Dis advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

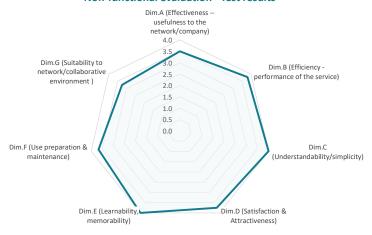
| TSS | success | 11 | | TSS _{partial} | 0 | | TSS _{fail} | | 0 | |
|---|---|----------------|-----------------|--|---------------------|-------------------|---------------------|------------|-----------|--|
| Functionalit | | | | Expected Results | | | Passed | Remarks | | |
| Access to th | e Circularity We | eb Platform | | Circularity Web Platform shows log | in page | | YES | No comment | | |
| Login to the Platform User successfully logged in | | | | | YES | No comment | | | | |
| | ted to home pa | ae | | Home page correctly opened | | | YES | No comment | | |
| | combimeter" ca | | | List of relevant car parts shows up | | | YES | No comment | | |
| | Select component to visualize Modules selection page is shown for the selected component | | | | nnonent | YES | No comment | | | |
| | PEN DIS" buttor | | accomblability | Disassembly dashboard is shown for | | | 11.0 | | | |
| Module" car | | IIIII IIIE DIS | assemblability | Disassembly dashboard is shown to | i the selected col | пропен | YES | No comment | | |
| _ | is advisory" link | on the top r | navhar | Disassembly advisor dashboard cor | rectly opened | | YES | No comment | | |
| | ctrical and elect | | | All relevant information for the desir | | displayed | 120 | | | |
| | e "Metals to be | | | | 00 000 000000110 | alopiayou | YES | No comment | | |
| | and cost metric | | | All relevant information for the desir | red sub-section is | displayed | | | | |
| | | | | | | | YES | No comment | | |
| Adjust the "E | Disassembly cos | st per hour" | value | The "Estimated disassembly cost" n | netric is adjusted | accordingly | | | | |
| ., | , | | | , | , | 3, | YES | No comment | | |
| Assess "The | rmodynamic rai | rity VS Reve | enue" sub | All relevant information for the desir | red sub-section is | displayed | | | | |
| section of th | e "Metals to be | extracted" s | section | | | . , | YES | No comment | | |
| Adjust the "T | Thermodynamic | rarity value | limit" and | The lower limits for the "Thermodyr | namic rarity indica | tor" and | | | | |
| | for revenue" me | | | "Revenue" metrics are adjusted acc | | | YES | No comment | | |
| Hover with the | he mouse over | a metal in th | ne chart | A tooltip with specific metrics about | the selected met | al is shown | YES | No comment | | |
| | ctional Evalu | | | | | | | | | |
| | ctiveness us | | the network/c | ompany) | | | | Total | 3.5 | |
| | | Cidilless (U | the network/c | zinpuny, | | | | | | |
| 11 | Question | | | | | | | Answ | ver (0-4) | |
| | | | | and benefit of the service to my | | | | | 3 | |
| | | | | tant / useful for the company/net | work. The service | ce creates value | for my | | | |
| 1 1 | company ≠ | , | example by | | | | | | | |
| 1 1 | - saving costs | | | | | | | | | |
| 1 1 | - increasing ir | | | | | | | | | |
| l l | | | ng processes | | | | | | | |
| A2 | - decreasing | | | | | | | | 4 | |
| 1 1 | - improving q | | | | | | | | | |
| | - sharing info | | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | - boosting lea | - | | | | | | | | |
| H | | | with other ord | | | | | | | |
| A3 | | | | ness objectives / perform the tas | ks with the serv | ice. | | | | |
| A4 | What could b | e improve | ed to make m | ore value of the tool/service? | | | | | | |
| \perp | | | | | lt's right, | it doesn't need | any other tool | | | |
| Dim.B (Effic | iency - perforr | mance of th | e service) | | | | | Total | 3.8 | |
| Ref# | Question | | | | | | | Answ | ver (0-4) | |
| B1 | The time and | resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | Γ | 4 | |
| - | The service re | | | • | | | | | 4 | |
| = | | | | y steps to achieve the result. | hieve the result | | | | 4 | |
| | | | | company/ network. | | | | 3 | | |
| - | | | | <u> </u> | | | | | 4 | |
| B5 | | | | fast performance of the tasks. | | | | | 7 | |
| В6 | vvilat could b | e improve | ва то таке т | ore value of the tool/service? | 107 1 1 1 | 26 1 16 1 | | | | |
| | | | | | it s right, | it doesn't need | any otner tool | | | |
| | erstandability/ | simplicity) | | | | | | Total | 4.0 | |
| 1 | Question | | | | | | | Ansv | ver (0-4) | |
| | The service s | tructure an | nd logic is eas | y and self-clear to understand ar | nd recognizable. | | | | 4 | |
| C2 | The concepts | are under | standable for | my organization and in line with | TREASURE tern | ninology | | | 4 | |
| C3 | The service o | ffers suffic | ient guidance | <u></u> | | | | | 4 | |
| | | | | derstandable. The look and feel i | s self explanator | y and follows th | е | | 4 | |
| C4 | TREASURE s | | | | | - | | | 4 | |
| 65 | The support t | o business | processes / t | asks is clear. The user can unde | rstand his/her ro | le and the purp | ose of the | | 4 | |
| C5 | actions requir | | | | | | | | 4 | |
| | | | ough for prac | tical use. The tasks do not look of | complex to perfo | rm. It is clear w | hat is | | 4 | |
| C6 | required for in | | | | | | | | 4 | |
| - | _ | | e is clear and | understandable. | | | | | | |
| | _ | | | | | | | | | |
| CR | What could be improved to make more value of the tool/service? | | | | | | | | | |

| 00 | It's right, it doesn't need a | ny other tool | | | |
|------------|---|---------------|----------------|--|--|
| Dim.D (Sat | tisfaction & Attractiveness) | Total | 3.8 | | |
| Ref# | Question | ! | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 3 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. | and starting | | | |
| D3 | The mental workload when using the service is low. | | 4 | | |
| D4 | The service rewards the user also personally | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | It's right, it doesn't need a | - | | | |
| Dim.E (Lea | arnability, memorability) | Total | 4.0 | | |
| Ref# E1 | Question It is easy to start using the service and to perform the main tasks. | | Answer (0-4) 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| | It's right, it doesn't need a | , | | | |
| | e preparation & maintenance) | Total | 3.7 | | |
| Ref# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily manual available for the service. | ade | 2 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| D: 0 (0) | It's right, it doesn't need a | - | | | |
| <u> </u> | itability to network/collaborative environment) | Total | 3.3 | | |
| Ref# G1 | Question The service supports collaboration and interoperability for my network. | | Answer (0-4) 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | |
| G3 | The service takes into account safety and security. | | 4 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 3 | | |
| Results / | Assessment | | | | |
| Functional | I Dimension | | | | |
| | | · · | TSS Results | | |
| TSS Succ | cess | | | | |
| TSS Partia | | | 0 | | |
| TSS Fail | и | | 0 | | |
| 100 i all | | | 0 | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.5 |
| Dim.B (Efficiency - performance of the service) | 3.8 |

| Dim.C (Understandability/simplicity) | 4.0 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.7 |
| | 3.7 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-------------------|---|------------------------------------|--|
| | Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| ı | Short Description | Visualize advisory information about a car | part in the Recyclability Advisory | / Dashboard |

TSS_{fail}

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN REC" button in the "Recyclability Module" card.
 5. Click the "Rec advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

 TSS_{success}

 15

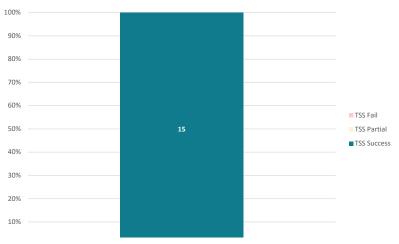
 TSS_{partial}

 0

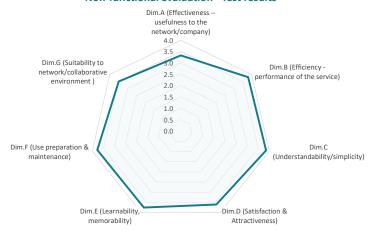
| 18 | S _{success} | 15 | | ISS _{partial} | 0 | | | ISS _{fail} | | | 0 |
|--|---|--|--|--|----------------------------------|---------------------------------------|---------------|---------------------|---|-------|-----|
| Functional | | | | Expected Results | | | Passed | Remarks | | | |
| Access to t | the Circularity We | eb Platform | | Circularity Web Platform shows log | gin page | | YES | No comment | | | |
| Login to the | e Platform | | | User successfully logged in | | | YES | No comment | | | |
| User redirected to home page | | | | Home page correctly opened | | | YES | No comment | | | |
| | "combimeter" ca | | | List of relevant car parts shows up | | | YES | No comment | | | |
| | ponent to visuali | | | Modules selection page is shown f | | mnonent | YES | No comment | | | |
| | OPEN REC" butto | | cyclability | Recyclability dashboard is shown f | | | YES | No comment | | | |
| | Rec advisory" link | | | Recyclability advisor dashboard co | | пропол | YES | No comment | | | |
| | recycling route t | | | All relevant information for the des | | ved | 120 | NO COMMENT | | | |
| | bination of disass | | | All relevant information for the des | sired table is displa | yeu | | | | | |
| | implement (from | | | | | | YES | No comment | | | |
| section | . , | • | , | | | | | | | | |
| Press the in | nfo button at the | right of one i | recycling | The "DIS & REC route X" popup ap | ppears | | | | | | |
| route | | 3 | , | , , , , , , , , , , , , , , , , , , , | | | YES | No comment | | | |
| Assess the | materials in the ' | 'DIS & REC I | route X" table | All relevant information for the des | sired table is displa | ved | | | | | |
| | | | | | | , | YES | No comment | | | |
| Assess the | revenue indicato | or | | All relevant information for the des | sired section is disc | played | | | | | |
| | | | | | | , | YES | No comment | | | |
| Adjust the " | "Total cost" value | , | | The "Profit" indicator updates acco | ordinaly | | | | | | |
| Aujust trie | Total Cost Value | , | | The Tront indicator appates acce | ordingry | | YES | No comment | | | |
| | | | | | | | | | | | |
| Press the "0 | Close" ("X") butto | on | | The "DIS & REC route X" popup cl | loses | | | | | | |
| | ` / | | | | | | YES | No comment | | | |
| Assess the | "Graphical integ | ration appro | ach" sub- | All relevant information for the des | sired section is disp | olayed | VE0. | No comment | | | |
| section | | | | | | | YES | No comment | | | |
| Hover with | the mouse over | a recycling r | oute in the | A tooltip with specific metrics abou | ut the selected rec | ycling route is | YES | No comment | | | |
| chart | | | | shown | | | TES | NO COMMENT | | | |
| Non-Fun | nctional Evalu | ıation | | | | | | | | | |
| NOII-I UII | | | | | | | | | | | |
| | ectiveness us | | the network/co | ompany) | | | | Total | | | 3.3 |
| | | | the network/co | ompany) | | | | Total | Answer | (0-4) | 3.3 |
| Dim.A (Effe | ectiveness use | efulness to | | ompany) and benefit of the service to m | y organization/ne | etwork. | | Total | Answer 3 | (0-4) | 3.3 |
| Dim.A (Effe | ectiveness use Question It is easy to u | efulness to | the objective | | | | e for my | Total | | (0-4) | 3.3 |
| Dim.A (Effe | ectiveness use Question It is easy to u | nderstand of the ser | the objective | and benefit of the service to my | | | o for my | Total | | (0-4) | 3.3 |
| Dim.A (Effe | Question It is easy to un The outcome | nderstand of the ser | the objective | and benefit of the service to my | | | e for my | Total | | (0-4) | 3.3 |
| Dim.A (Effe | Question It is easy to use The outcome company & ne | nderstand of the ser | the objective | and benefit of the service to my | | | ofor my | Total | | (0-4) | 3.3 |
| Dim.A (Effe | Question It is easy to un The outcome company ≠ - saving costs - increasing ir | nderstand of the ser etwork, for e | the objective vice is import example by | and benefit of the service to my | | | of for my | Total | | (0-4) | 3.3 |
| Dim.A (Effe | Question It is easy to un The outcome company ≠ - saving costs - increasing ir | nderstand of the ser etwork, for e | the objective | and benefit of the service to my | | | e for my | Total | | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | It is easy to under the outcome company ≠ - saving costs - increasing ir - saving time, - decreasing if | nderstand of the ser etwork, for e income acceleratir | the objective vice is import example by | and benefit of the service to my | | | o for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | It is easy to use the outcome company ≠ - saving costs - increasing ir - saving time, - decreasing questions - improving questions | nderstand of the ser etwork, for e income acceleration risks uality | the objective vice is import example by | and benefit of the service to my | | | e for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | It is easy to under the outcome company ≠ - saving costs - increasing ir - saving time, - decreasing if | nderstand e of the ser etwork, for e income acceleration risks uality | the objective vice is import example by | and benefit of the service to my | | | e for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | It is easy to under the outcome company ≠ - saving costs - increasing ir - saving time, - decreasing ir - sharing information of the company ≠ - sharing information of the company of | nderstand e of the ser etwork, for e income acceleration risks uality rmation ustomers | the objective vice is imporexample by | and benefit of the service to my | | | o for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | Rectiveness using least to under the outcome company American saving costs increasing ir saving time, decreasing ir sharing information attracting cure boosting least rective saving cure costs and cure the outcome cure to under the outcome cure to under the outcome cure to under the outcome cure | nderstand of the ser etwork, for e acceleration risks uality rmation ustomers rning and in | the objective vice is imporexample by | and benefit of the service to m tant / useful for the company/ne | | | o for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 | It is easy to use the company & me - saving costs - increasing ir - saving time, - decreasing ir - sharing infor - attracting cu - boosting lea - supporting r | nderstand of the ser etwork, for e income acceleration risks uality rmation ustomers rning and in | the objective vice is imporexample by any processes | and benefit of the service to m tant / useful for the company/ne | twork. The servi | ce creates valu e | o for my | Total | 3 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 A1 A2 A2 | It is easy to use the company ≠ company ≠ saving costs - increasing in saving time, - decreasing in mproving question - attracting composition - attracting composition - supporting resupporting re | nderstand of the ser etwork, for ei income acceleratir risks uality mation istomers rning and in etworking chieve the | the objective vice is imporexample by any processes nnovation with other orgalization desired. | and benefit of the service to my tant / useful for the company/ne | twork. The servi | ce creates valu e | o for my | Total | 4 | (0-4) | 3.3 |
| Dim.A (Effe Ref # A1 A1 | It is easy to use the company ≠ company ≠ saving costs - increasing in saving time, - decreasing in mproving question - attracting composition - attracting composition - supporting resupporting re | nderstand of the ser etwork, for ei income acceleratir risks uality mation istomers rning and in etworking chieve the | the objective vice is imporexample by any processes nnovation with other orgalization desired. | and benefit of the service to me tant / useful for the company/ne tant / useful for the service to me tant / useful for the service tan | sks with the servi | ce creates valu e | | | 4 | (0-4) | 3.3 |
| A3 A4 | It is easy to use the company ≠ company ≠ saving costs - increasing in saving time, - decreasing in mproving question - attracting composition - attracting composition - supporting resupporting re | efulness to inderstand of the ser stwork, for extended accelerating index in the service of the | the objective vice is imported by many processes novation with other organization by the document of the organization with other organization of the organization of t | and benefit of the service to me tant / useful for the company/ne tant / useful for the service to me tant / useful for the service tan | sks with the servi | ce creates value | | | 4 | (0-4) | 3.8 |
| A2 A3 A4 Dim.B (Effi | Rectiveness using the company and compa | efulness to inderstand of the ser stwork, for extended accelerating index in the service of the | the objective vice is imported by many processes novation with other organization by the document of the organization with other organization of the organization of t | and benefit of the service to me tant / useful for the company/ne tant / useful for the service to me tant / useful for the service tan | sks with the servi | ce creates value | | | 4 | | |
| A2 A3 A4 Dim.B (Efff | Rectiveness using Question It is easy to use the outcome company ≠ - saving costs - increasing ir - saving time, - decreasing ir - sharing infor - attracting curboosting lear - supporting relative to a what could be decreased. | efulness to inderstand of the ser etwork, for extended acceleration is income acceleration in the series in the se | the objective vice is imporexample by any processes nnovation with other orgalization of to make me service) | and benefit of the service to me tant / useful for the company/ne tant / useful for the | isks with the servi | ice. | | | 3 4 Answer | | |
| A2 A3 A4 Dim.B (Efff# B1 | Rectiveness using least to under the outcome company ≠ saving costs increasing in saving time, decreasing in sharing infor attracting curboosting lear supporting roll tis easy to a what could be company for the time and | efulness to inderstand of the servitives, for extremely accelerating and instruments of the servitives of the servitive of the servitives | the objective vice is imported by example by any processes annovation with other orgalization and to make me service) | and benefit of the service to me tant / useful for the company/ne tant / useful for the service to me tant / useful for the service tan | isks with the servi | ice. | | | 3 4 Answer 4 | | |
| A2 A3 A4 Dim.B (Effi | Rectiveness using least to under the outcome company she increasing in saving costs increasing in saving time, decreasing in sharing information attracting curboosting lear supporting in the seasy to an authorized the could be increased. | efulness to inderstand of the servitives, for extraction in acceleration in the servitives and in the servitives and in the servitives and in the servitives and in the servitive in the servitives and in the servitives an | the objective vice is imported by example by and processes annovation with other order planned busined to make metal eservice). | and benefit of the service to me tant / useful for the company/ne tant / useful for the | isks with the servi | ice. | | | 3 4 Answer 4 4 | | |
| A2 A3 A4 Dim.B (Effi | Rectiveness using least to under the outcome company & me - saving costs - increasing in - saving time, - decreasing in - sharing information - attracting cure - boosting lear - supporting relative to a what could be company from the time and the service in the service of the outcome. | nderstand of the ser etwork, for extending state of the server acceleration is to me acceleration in the server acceleration is to me acceleration in the server acceleration is to me acceleration is to me acceleration in the server acceleration is to me acceleration in the server acceleration in the server acceleration is the server acceleration in the server acceleration in the server acceleration is the server accelerati | the objective vice is imported by any processes annovation with other organized to make me service) required to acough. quire too man | and benefit of the service to me tant / useful for the company/ne tant / useful for the tant / usef | isks with the servi | ice. | | | 3 Answer 4 4 4 | | |
| A2 A3 A4 Dim.B (Effi B1 B2 B3 B4 | Rectiveness using least to under the service of All the function of the service of the service of All the function of the service of | efulness to inderstand of the service setwork, for extending acceleration is income acceleration in index of the index of | the objective vice is imporexample by ng processes nnovation with other ordinated to make me e service) required to acough. quire too man eficial for my | and benefit of the service to me tant / useful for the company/ne tant / useful for the company / perform the tant or evalue of the tool/service? Shieve the objectives with the set y steps to achieve the result. company/ network. | isks with the servi | ice. | | | 3 3 Answer 4 4 4 3 | | |
| A2 A3 A4 Dim.B (Effi | It is easy to under the service of All the function | inderstand of the ser strong of the ser ser ser ser ser ser ser ser ser se | the objective vice is imporexample by and processes annovation with other ordinated to make me service) required to accough, quire too man eficial for my ows flexible 8 | and benefit of the service to me tant / useful for the company/ne tant / useful for the company for the tant ore value of the tool/service? Chieve the objectives with the set y steps to achieve the result. company/ network. | isks with the servi | ice. | | | 3 Answer 4 4 4 | | |
| A2 A3 A4 Dim.B (Effi B1 B2 B3 B4 | It is easy to under the service of All the function | inderstand of the ser strong of the ser ser ser ser ser ser ser ser ser se | the objective vice is imporexample by and processes annovation with other ordinated to make me service) required to accough, quire too man eficial for my ows flexible 8 | and benefit of the service to me tant / useful for the company/ne tant / useful for the company / perform the tant or evalue of the tool/service? Shieve the objectives with the set y steps to achieve the result. company/ network. | sks with the servi | rice. it doesn't need | any other too | Total | 3 3 Answer 4 4 4 3 | | |
| A2 A3 A4 Dim.B (Effi # B1 B2 B3 B4 B5 B6 | Rectiveness using least to use the company ≠ comp | efulness to inderstand of the ser ethors, for each elevation in acceleration i | the objective vice is imporexample by and processes annovation with other ordinated to make me service) required to accough, quire too man eficial for my ows flexible 8 | and benefit of the service to me tant / useful for the company/ne tant / useful for the company for the tant ore value of the tool/service? Chieve the objectives with the set y steps to achieve the result. company/ network. | sks with the servi | ice. | any other too | Total | 3 3 Answer 4 4 4 3 | | |
| A2 A3 A4 Dim.B (Effi # B1 B2 B3 B4 B5 B6 | It is easy to under the service of All the function | efulness to inderstand of the ser ethors, for each elevation in acceleration i | the objective vice is imporexample by and processes annovation with other ordinated to make me service) required to accough, quire too man eficial for my ows flexible 8 | and benefit of the service to me tant / useful for the company/ne tant / useful for the company for the tant ore value of the tool/service? Chieve the objectives with the set y steps to achieve the result. company/ network. | sks with the servi | rice. it doesn't need | any other too | Total | 3 3 Answer 4 4 4 3 | | |
| A2 A3 A4 Dim.B (Effi # B1 B2 B3 B4 B5 B6 | Rectiveness using least to use the company ≠ comp | efulness to inderstand of the ser ethors, for each elevation in acceleration i | the objective vice is imporexample by and processes annovation with other ordinated to make me service) required to accough, quire too man eficial for my ows flexible 8 | and benefit of the service to me tant / useful for the company/ne tant / useful for the company for the tant ore value of the tool/service? Chieve the objectives with the set y steps to achieve the result. company/ network. | sks with the servi | rice. it doesn't need | any other too | Total | 3 3 Answer 4 4 4 3 | (0-4) | 3.8 |
| A2 A3 A4 Dim.B (Efff B1 B2 B3 B4 B5 B6 Dim.C (Une | Rectiveness using least to unit is easy to increasing increasing increasing information attracting cumproving cumproving the say to a least to unit is easy t | efulness to inderstand of the ser etwork, for extending a collection in a coll | the objective vice is imporexample by any processes annovation with other organization of the make me service) required to acough. Quire too man eficial for my ows flexible & ed to make me to make m | and benefit of the service to me tant / useful for the company/ne tant / useful for the company for the tant ore value of the tool/service? Chieve the objectives with the set y steps to achieve the result. company/ network. | isks with the service are reason | ice. it doesn't need able/moderate. | any other too | Total | 3 Answer 4 4 4 3 4 | (0-4) | 3.8 |
| A2 A3 A4 Dim.B (Efff B1 B2 B3 B4 B5 B6 Dim.C (Unc Ref # C1 | Rectiveness using least to under the service of | efulness to inderstand of the servitives, for extraction in acceleration in the servitive state of the servitive s | the objective vice is imported by example by and processes annovation with other order planned busined to make meters and to ma | and benefit of the service to me tant / useful for the company/ne tant / useful for the tant / usef | lt's right It's right | ice. , it doesn't need able/moderate. | any other too | Total | 4 Answer 4 4 3 4 Answer 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | (0-4) | 3.8 |
| A3 A4 A2 A3 A4 Dim.8 (Efff B1 B2 B3 B4 B5 B6 Dim.C (Uno | Rectiveness using least to under the service of | efulness to inderstand of the servitory, for extending a collection in the servitory in the | the objective vice is imporexample by any processes annovation with other ordinary planned busing the total cough. The country of the cough of the c | and benefit of the service to me tant / useful for the company/ne tant and tant a service / perform the tant and tant a service? Chieve the objectives with the service yesteps to achieve the result. Company/network. If ast performance of the tasks. Ore value of the tool/service? | lt's right It's right | ice. , it doesn't need able/moderate. | any other too | Total | 4 Answer 4 4 3 4 Answer | (0-4) | 3.8 |

| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | 4 | | |
|---|--|-------|---|--|--|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. | 4 | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | 4 | | | |
| C7 | The output of the service is clear and understandable. | 4 | | | |
| | What could be improved to make more value of the tool/service? | | | | |
| C8 | It's right, it doesn't need any other tool | | | | |
| Dim.D (Sati | sfaction & Attractiveness) | Total | 3.6 | | |
| Ref# | Question | Ar | nswer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | | 4 | | |
| D3 | The mental workload when using the service is low. | | 4 | | |
| D3 | The service rewards the user also personally | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| DS | , , , | | 7 | | |
| D6 | What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool | | | | |
| im E (Loc | rnability, memorability) | Total | 3.8 | | |
| | | | | | |
| | Question | Ar | nswer (0-4) | | |
| | It is easy to start using the service and to perform the main tasks. | | 4 | | |
| | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| LJ | It's right, it doesn't need any other tool | | | | |
| im.F (Use | preparation & maintenance) | Total | 3.8 | | |
| ef# | Question | Ar | nswer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | | |
| | | | 4 | | |
| | | | 4 | | |
| F2 F3 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made | | • | | |
| F2 F3 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 4 | | |
| F2 F3 F4 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. | | 4 4 | | |
| F2 F3 F4 F5 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | 4 4 3 | | |
| F2 F3 F4 F5 F6 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. | | 4 4 3 3 3 | | |
| F2 F3 F4 F5 F6 F7 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | | 4 4 3 3 3 4 | | |
| F2 F3 F4 F5 F6 F7 F8 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 4 4 4 3 3 3 4 4 | | |
| F2 F3 F4 F5 F6 F7 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | 4 4 3 3 3 4 | | |
| F2 F3 F4 F5 F6 F7 F8 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | 4 4 4 3 3 3 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | 4 4 3 3 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment) | Total | 4 4 3 3 3 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Suite | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment) | | 4 4 4 3 3 3 4 4 4 4 3 sswer (0-4) | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Suite of # | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. | | 4 4 4 3 3 3 4 4 4 4 3 5 1 8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 iim.G (Suite | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment) | | 4 4 4 3 3 3 4 4 4 4 3 sswer (0-4) | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Suite of # | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. | | 4 4 4 3 3 3 4 4 4 4 3 5 1 8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Suite # | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | | 4 4 4 3 3 3 4 4 4 4 3 3 3 3 4 4 4 3 3 3 3 3 4 4 4 3 3 3 3 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 sim.G (Suit) ef # G1 G2 G3 G4 | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | | 4 4 4 3 3 3 4 4 4 4 4 3 3 3 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suitef# G1 G2 G3 G4 Results A | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | | 4 4 4 3 3 3 4 4 4 4 4 3 3 3 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit) Ref # G1 G2 G3 G4 Results A | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment to a service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Sesessment Dimension | Ar | 4 4 4 3 3 3 4 4 4 4 4 3 3 3 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suitt Ref # G1 G2 G3 G4 Results A Gunctional | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. In the network of the networ | Ar | 4 4 4 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | | |
| F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit) Ref # G1 G2 G3 G4 Results A | Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool ability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. In the network of the networ | Ar | 4 4 4 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.8 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.7 |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-------------------|---|---------------------------------|--|
| | Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| ı | Short Description | Visualize advisory information about a car | part in the Eco-Design Advisory | Dashboard |

Test Script

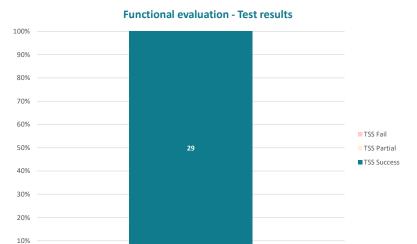
- 1. Access the TREASURE Circularity Web Platform.

- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
 5. Click the "Eco advisory" link on the top navbar.
 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} | 29 | TSS _{partial} | 0 | | | TSS _{fail} | 0 | |
|---|--|--|----------------------|-----------------|------------|---------------------|-----|--|
| Functionalities | | Expected Results | | | Passed | Remarks | | |
| Access to the Circularity Web Platform C | | Circularity Web Platform shows log | n page | | YES | No comment | | |
| Login to the Platform | | User successfully logged in | | | YES | No comment | | |
| User redirected to home pa | age | Home page correctly opened | | | YES | No comment | | |
| Search for "combimeter" ca | | List of relevant car parts shows up | | | YES | No comment | | |
| Select component to visual | · | Modules selection page is shown for the selected component | | YES | No comment | | | |
| Click the "OPEN ECO" button in the "Eco-Design | | Eco-design dashboard is shown for | | | | | | |
| Module" card | | Less design dustributed to she will ter | | porione | YES | No comment | | |
| Click the "Eco advisory" link on the top navbar. | | Eco-design advisor dashboard corre | ectly opened | | YES | No comment | | |
| Assess the "Feedback to improve design for | | All the relevant feedback is properly | | desired sub- | | | | |
| disassembly and recycling" | | section | , | | | | | |
| Preliminary analysis of the | | | | YES | No comment | | | |
| section of the "Reference D | esign" section | | | | | | | |
| Assess the "Eco-design fee | | All the relevant feedback is properly | displayed for the | desired sub- | | | | |
| Preliminary analysis of the | | section | | | YES | No comment | | |
| section of the "Reference D | Design" section | | | | 123 | | | |
| | | | | | | | | |
| Click the "Generate Guideli | | "Generate guidelines" popup is sho | wn | | | | | |
| Generation of specific eco- prioritization" sub-section | design guidelines and | | | | YES | No comment | | |
| Hover the mouse over the i | info ioon novi to the | A tooltip with the guideline name ap | ana ara | | | | | |
| quideline ID | nio icon next to the | A toolup with the guideline hame ap | pears | | YES | No comment | | |
| Click the info button next to | | A | :-4 4 0: | d-1: 40" | | | | |
| feedbacks for "Guideline 10 | | A popup with the list of feedbacks a appears | issociated to Guid | deline 10 | YES | No comment | | |
| Press the "X" button | , | The feedbacks popup closes | | | VEC | No commont | | |
| Select a "Margin of improve | ement (MI)" and a | The "Level of circularity improveme | nt" indicator corre | enonding to | YES | No comment | | |
| "Relevance (R)" for each gu | | each guideline is computed | in indicator corre | sponding to | YES | No comment | | |
| Click the "Generate" button | | The "Generate guidelines" popup c | oses, the "Step 3: | Generation of | | | | |
| | | the new design supported by the advisory" sub-section appears, | | YES | No comment | | | |
| | | showing the guidelines radar-chart | | | 0 | | | |
| Assess the guidelines radar | r chart in the "Step 3: | All relevant information for the desir | ed section is disp | laved | | | | |
| Generation of the new design | | | · | , | YES | No comment | | |
| advisory" sub-section | | | | | | | | |
| Hover the mouse over a po | int in the guidelines radar | A popup showing the "Level of circu | ularity improveme | nt" indicator | | | | |
| chart | | appears | | | YES | No comment | | |
| Select a guideline from the | | The "Associated feedback" and "Ad | visory" content in | the table below | | | | |
| dropdown, at the bottom of | the guidelines radar chart | change accordingly | | YES | No comment | | | |
| | | | | | | | | |
| Assess the "Scenarios com | | All relevant information for the desir | | layed | YES | No comment | | |
| lick the "OPEN SCENARIOS | S IN GRETA" button | The GRETA tool opens in a new tab | 1 | | YES | No comment | | |
| Move between the "LCA" a | | The scenarios radar chart updates | accordingly | | YES | No comment | | |
| "OPEN SCENARIOS IN GRI | | | | | 120 | | | |
| Click the "REFRESH" button | | The scenarios radar chart and com | ments section refr | esh | YES | No comment | | |
| "Scenarios comparison" se | | All and account in forward in a few the account | | | 1/20 | No comment | | |
| Assess the scenarios radar chart Hover the mouse over a point in the scenarios radar | | All relevant information for the scen | | | YES | No comment | | |
| chart | int in the scenarios radar | A tooltip with the category value for | the selected scer | ario appears | | No | | |
| onare | | | | | YES | No comment | | |
| Click the "DOWN! OAD BEI | FERENCE REPORT" button | The report for the reference scenar | in is evaneted in " | ndf" format | | | | |
| CIICK THE DOWNLOAD KEI | FERENCE REPORT DULION | The report for the reference scenar | io is exported iii . | pui ioiiilat | YES | No comment | | |
| Click the "DOWNLOAD BE | ST-CASE REPORT" button | The report for the best-case scenar | io is exported in ". | pdf" format | | | | |
| | | | | | YES | No comment | | |
| Assess the "Comments" see | ction | All relevant information for the desir | ed section is disp | layed | YES | No comment | | |
| Assess the "Metal Wheel (N | MARAS)" section | All relevant information for the desir | ed section is disp | layed | YES | No comment | | |
| Click the "DOWNLOAD" bu | | The metal wheel is exported in ".pn | | | | | • | |
| "Metal Wheel (MARAS)" se | | , | | | YES | No comment | | |
| Non-Functional Evalu | uation | | | | | | | |
| | im.A (Effectiveness usefulness to the network/company) | | | | | Total | 4.0 | |
| Ref # Question | | | | | | Answer (0-4) | | |
| \ | inderstand the objective | and benefit of the service to my | organization/ne | twork. | | | 4 | |
| | | | _ | | | • | | |

| | The outcome of the service is important / useful for the company/network. The service creates value for my | | |
|--|--|---------------|---|
| | company &network, for example by | | |
| | - saving costs | | |
| | - increasing income - saving time, accelerating processes | | |
| A2 | - decreasing risks | | 4 |
| | - improving quality | | |
| | - sharing information | | |
| | - attracting customers | | |
| | - boosting learning and innovation - supporting networking with other organizations | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | 4 |
| A4 | What could be improved to make more value of the tool/service? | | |
| | It's right, it doesn't need any other tool | | |
| | ciency - performance of the service) | Total | 3.8 |
| | Question | Ansv | ver (0-4) |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 4 |
| B2 | The service runs fast enough. | | 4 |
| B3 B4 | The service does not require too many steps to achieve the result. All the functions are beneficial for my company/ network. | | 3 |
| B5 | The service structure allows flexible & fast performance of the tasks. | | 4 |
| | What could be improved to make more value of the tool/service? | | |
| В6 | It's right, it doesn't need any other tool | | |
| Dim.C (Unc | derstandability/simplicity) | Total | 3.9 |
| Ref# | Question | Ansv | ver (0-4) |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | 4 |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | 3 |
| C3 | The service offers sufficient guidance | | 4 |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | 4 |
| - | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the | | |
| C5 | actions required. | | 4 |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is | | 4 |
| | required for input. | | |
| C7 | The output of the service is clear and understandable. | | 4 |
| C8 | What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool | | |
| Dim D (Sati | isfaction & Attractiveness) | Total | 3.6 |
| Ref# | Question | | ver (0-4) |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 |
| | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting | | , |
| D2 | again. | | 4 |
| D.0 | | | |
| D3 | The mental workload when using the service is low. | | 3 |
| D4 | The mental workload when using the service is low. The service rewards the user also personally | | 3 |
| | The service rewards the user also personally I could recommend the service for other people/organizations. | | |
| D4 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | 3 |
| D4 D5 D6 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool | Total | 3 4 |
| D4 D5 D6 Dim.E (Lea | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) | Total | 3 4 3.8 |
| D4 D5 D6 Dim.E (Lea | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question | | 3 4 |
| D4 D5 D6 Dim.E (Lea | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) | | 3 4 3.8 |
| D4 D5 D6 Dim.E (Lea | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. | | 3 4 3.8 ver (0-4) |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool readility, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | 3 4 3.8 ver (0-4) 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Residually memorability Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? | | 3 4 3.8 ver (0-4) 4 4 3 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool | Ansv | 3 4 3.8 ver (0-4) 4 3 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Ruestion It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Ruestion It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. | Ansv Total | 3 4 4 3.8 ver (0-4) 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Ruestion It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Ruestion It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. | Ansv Total | 3 4 4 3.8 ver (0-4) 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Read to say to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made | Ansv Total | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool The service of start using the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool Read to get the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool reparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require syecific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | Ansv Total | 3 4 3.8 ver (0-4) 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool The service of start using the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. | Ansv Total | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool readily, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool | Total Answ | 3 4 3.8 ver (0-4) 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool readily, memorability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) | Total Answ | 3 4 3.8 ver (0-4) 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool readily, it is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming be service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) Question | Total Answ | 3 4 3.8 ver (0-4) 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool rability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | Total Answ | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool reading the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require kigh maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) Question The service is easy to take up also for SMEs. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | Total Answ | 3 4 3.8 ver (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D4 D5 D6 Dim.E (Lea Ref # | The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool reading the service and to perform the main tasks. It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tool tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service takes into account safety and security. | Total Answ | 3 4 3.8 ver (0-4) 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |

| Functional Dimension | | | | |
|----------------------|-------------|--|--|--|
| | TSS Results | | | |
| TSS Success | 29 | | | |
| TSS Partial | 0 | | | |
| TSS Fail | 0 | | | |



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.8 | | | |

0%





TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Passed Remarks

Test Case References

| Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|---------------|---------------------|--|
| Marcelo Liendo Ludueña (ILSSA) Actors involved (Environmental Manager in Grupo Lopez Contact Po | | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description Visualize basis dismartling information about a car part in the Disascemblability Dashboard | | | |

Test Script

Functionalities

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.

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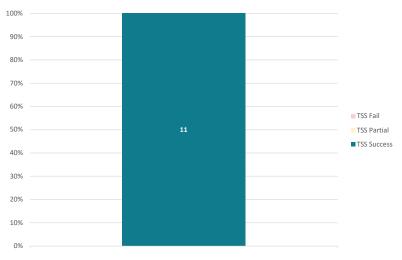
5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. TSS_{partial}

Expected Results

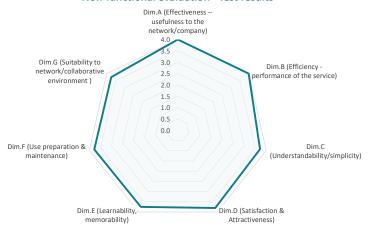
| i unctionan | ues | Expected Results | rasseu | remarks | | |
|--|---|--|----------------|------------|------|--|
| Access to the | ess to the Circularity Web Platform Circularity Web Platform shows login page | | | No comment | | |
| Login to the Platform Use | | User successfully logged in | YES | No comment | | |
| User redirected to home page | | Home page correctly opened | YES | No comment | | |
| Search for " | combimeter" car part | List of relevant car parts shows up | YES | No comment | | |
| Select com | ponent to visualize | Modules selection page is shown for the selected component | YES | No comment | | |
| Click the "O | PEN DIS" button in the "Disassemblability | Disassembly dashboard is shown for the selected component | YES | No comment | | |
| | ponent overall stats section | All relevant information for the desired section is displayed | YES | No comment | | |
| Assess "Materials composition" & "Material Costs" pie | | All relevant information for the desired section is displayed | 1123 | | | |
| charts section | | YES | No comment | | | |
| | assembly times (manual)" section | All relevant information for the desired section is displayed | YES | No comment | | |
| | assembly metrics" section | All relevant information for the desired section is displayed | YES | No comment | | |
| | ed value into hourly cost input in lability metrics" section | The "Disassembly cost (lowerbound", "Disassembly cost" and "Disassembly cost (upperbound)" metrics adjust their values accordingly | YES | No comment | | |
| Assess "Col | oot metrics" section | All relevant information for the desired section is displayed | YES | No comment | | |
| ssess "Fee | dback for recyclers" section | All relevant information for the desired section is displayed | YES | No comment | | |
| | rent recycling routes from the ly & recycling route" dropdown | The feedback displayed changes depending on the selected route | YES | No comment | | |
| | add feedback" button | The add feedback popup appears | YES | No comment | | |
| | feedback text, then press the "Add | The feedback is correctly inserted for the currently selected recycling | | | | |
| eedback" b | utton | route | YES | No comment | | |
| | nponents extraction priority vs time" section | All relevant information for the desired section is displayed | YES | No comment | | |
| Non-Fun | ctional Evaluation | | | | | |
| | ctiveness usefulness to the network/c | ompany) | | Total | 4.0 | |
| | Question | , | | Answer (0 | | |
| | | and benefit of the service to my organization/network. | | 4 | ., | |
| A1 | | | form | + | | |
| | | tant / useful for the company/network. The service creates value | for my | | | |
| | company &network, for example by | | | | | |
| | - saving costs | | | | | |
| | 9 | | | | | |
| | increasing income | | | | | |
| | - saving time, accelerating processes | | | | | |
| 4.0 | | | | 4 | | |
| A2 | - decreasing risks | | | 4 | | |
| | improving quality | | | | | |
| | - sharing information | | | | | |
| | • | | | | | |
| | - attracting customers | | | | | |
| | boosting learning and innovation | | | | | |
| | - supporting networking with other org | ganizations | | | | |
| A3 | It is easy to achieve the planned busi | ness objectives / perform the tasks with the service. | | 4 | | |
| | What could be improved to make m | ore value of the tool/service? | | | | |
| A4 | | It's right, it doesn't need | any other tool | | | |
| im B (Effi | ciency - performance of the service) | | , | Total | 4.0 | |
| | | | | | | |
| | Question | | | Answer (0 |)-4) | |
| B1 | | chieve the objectives with the service are reasonable/moderate. | | 4 | | |
| B2 | The service runs fast enough. | | | 4 | | |
| В3 | The service does not require too man | y steps to achieve the result. | | 4 | | |
| B4 | All the functions are beneficial for my | company/ network. | | 4 | | |
| B5 | The service structure allows flexible & | | | 4 | | |
| | What could be improved to make m | | | | | |
| B6 | villat could be improved to make in | | any other tool | | | |
| · 0 "! | | It's right, it doesn't need | any other tool | | | |
| | erstandability/simplicity) | | | Total | 3.7 | |
| Ref# | Question | | | Answer (0 |)-4) | |
| C1 | The service structure and logic is eas | y and self-clear to understand and recognizable. | | 4 | | |
| C2 The concepts are understandable for my organization and in line with TREASURE terminology | | | 3 | | | |
| C3 | The service offers sufficient guidance | | | 4 | | |
| | | derstandable. The look and feel is self explanatory and follows the | ۵ | | | |
| C4 | TREASURE style. | . , | | 3 | | |
| C5 | | asks is clear. The user can understand his/her role and the purpo | ose of the | 4 | | |
| 00 | actions required | | | 4 | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is | | | | |
|------------------------|---|-------------|--------------|---|--|
| C6 | required for input. | 4 | | | |
| C7 | The output of the service is clear and understandable. | | 4 | | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| Co | It's right, it doesn't need any other tool | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | Total | 3.8 | | |
| Ref# | Question | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | | 4 | | |
| D3 | The mental workload when using the service is low. | | 3 | | |
| D4 | The service rewards the user also personally | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| D6 | It's right, it doesn't need any other tool | | | | |
| Dim.E (Lea | rnability, memorability) | Total | 3.8 | | |
| Ref# | Question | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | | |
| E2 | It is easy to learn new features/ functionalities. | | 3 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| E5 | It's right, it doesn't need any other tool | | | | |
| Dim.F (Use | preparation & maintenance) | Total | 3.8 | | |
| Ref# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | 3 | | | |
| F5 | The service can be easily shared in the network. | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | 3 | | | |
| F7 | The service is easy to take up also for SMEs. | 4 | | | |
| F8 | The service does not require extensive change of business processes. | 4 | | | |
| F9 | The service does not require high maintenance. | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| 110 | It's right, it doesn't need any other tool | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | Total | 3.8 | | |
| Ref# | Question | | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | |
| G3 | The service takes into account safety and security. | 4 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | |
| | Assessment | | | | |
| unctional | Dimension | | | | |
| | | TSS Results | | | |
| | | | | | |
| TSS Succ | ess | | | | |
| TSS Succ TSS Partia | | | | 0 | |





| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.8 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| Tes | st Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | | |
|-------|-------------|---|---------------------|--|--|--|--|
| Actor | rs involved | Name Surname (COMPANY) (technical/business user) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short | Description | Assess and expert specific information about a car part disassembly time from the Disassemblability Dashboard | | | | | |

Test Script

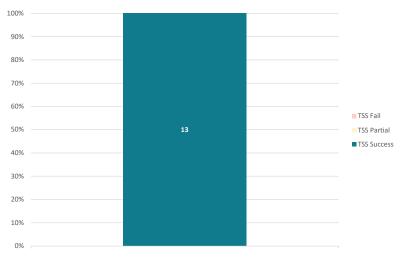
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

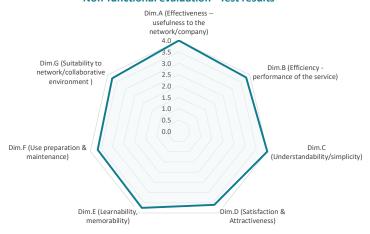
6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

| TSS | success | 13 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 | |
|-------------------------------|-----------------------------------|----------------|-----------------|---|--------------------|--------------------|----------------|---------------------|-----------|--|
| Functionalit | | | | Expected Results | | | Passed | Remarks | | |
| Access to the | e Circularity We | b Platform | | Circularity Web Platform shows logi | in page | | YES | No comment | | |
| Login to the | Platform | | | User successfully logged in | | | YES | No comment | | |
| User redirect | ted to home pag | ge | | Home page correctly opened | | | YES | No comment | | |
| Search for "o | combimeter" ca | r part | | List of relevant car parts shows up | | | YES | No comment | | |
| Select comp | onent to visualiz | ze | | Modules selection page is shown fo | r the selected cor | nponent | YES | No comment | | |
| Click the "Of | PEN DIS" buttor | n in the "Dis | assemblability | Disassembly dashboard is shown for | r the selected cor | nponent | YES | No comment | | |
| Navigate to t | he "Disassembl | y times (ma | nual)" section. | "Disassembly times (manual)" section button next to "Level 1" and "Level 1" | | has an info | YES | No comment | | |
| Press the infe | o button next to | the "Level | 2" metric | Disassembly time (level 2) page is of | correctly shown | | YES | No comment | | |
| Assess the p | arts table | | | Parts table correctly displays all the | relevant informat | ion | YES | No comment | | |
| Press the "In table header | fo" button next | to the "Diffic | culty level" | "Difficulty level calculation" popup is | s correctly shown | | YES | No comment | | |
| Assess the d | ifficulty level tal | ole | | The difficulty level table contains the | e proper informati | on | YES | No comment | | |
| | lose" ("X") butto | | | The difficulty level popup closes | • | | YES | No comment | | |
| Press the "Ex | , , | | | Data are exported successfully in " | xlsx" format | | YES | No comment | | |
| | tional Evalu | ation | | | | | | | | |
| | ctiveness use | | the network/c | ompany) | | | | Total | 4.0 | |
| | Question | | | | | | | | ver (0-4) | |
| 1 | | | | | | | 4 | | | |
| | | of the se | rvice is impor | tant / useful for the company/net | | | for my | | | |
| | saving costs | | onampio by | | | | | | | |
| | increasing in | | | | | | | | | |
| | | | ng processes | | | | | | | |
| A2 | decreasing r | | | | | | | | 4 | |
| ' | - improving qu | | | | | | | | | |
| | - sharing infor | - | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | - boosting lear | | innovation | | | | | | | |
| | - supporting n | etworking | with other or | ganizations | | | | | | |
| A3 | It is easy to ac | chieve the | planned busi | ness objectives / perform the tas | ks with the serv | ice. | | | 4 | |
| A4 | What could b | e improve | ed to make m | ore value of the tool/service? | | | | | | |
| | | | | | lt's right, | it doesn't need | any other tool | | | |
| Dim.B (Effic | iency - perforn | nance of th | e service) | | | | | Total | 3.8 | |
| Ref# | Question | | | | | | | Answ | ver (0-4) | |
| B1 | The time and | resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | Γ | 4 | |
| B2 | The service ru | ıns fast en | ough. | | | | | 4 | | |
| В3 | The service d | oes not re | quire too man | y steps to achieve the result. | | | | 4 | | |
| B4 | All the functio | ns are ber | neficial for my | company/ network. | | | | 3 | | |
| B5 | The service st | tructure all | lows flexible 8 | fast performance of the tasks. | | | | 4 | | |
| DC | What could b | e improve | ed to make m | ore value of the tool/service? | | | | | | |
| B6 | | | | | lt's right, | it doesn't need | any other tool | I | | |
| Dim.C (Und | erstandability/s | simplicity) | | | | | | Total | 4.0 | |
| Ref# | Question | | | | | | | Answ | ver (0-4) | |
| C1 | The service st | ructure ar | nd logic is eas | y and self-clear to understand ar | nd recognizable. | | | | 4 | |
| C2 | The concepts | are under | standable for | my organization and in line with | TREASURE tern | ninology | | | 4 | |
| | The service of | | | , , | | 0, | | | 4 | |
| C4 | | s to user a | | derstandable. The look and feel is | s self explanator | ry and follows the | е | | 4 | |
| C5 | The support to | business | processes / t | asks is clear. The user can unde | rstand his/her ro | le and the purpo | ose of the | | 4 | |
| | actions required. | | | | | | l | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w | that is | | | |
|------------------------|--|-----------------|---------|--------------|-------------|
| C6 | required for input. | mat is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | | |
| | What could be improved to make more value of the tool/service? | | | | |
| C8 | It's right, it doesn't need | any other tool | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.6 |
| Ref# | Question | i i | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. | us and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D3 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| DO | What could be improved to make more value of the tool/service? | | | 4 | |
| D6 | It's right, it doesn't need | any other tool | | | |
| Dim F (I ea | rnability, memorability) | any other tool | Total | | 3.8 |
| Ref# | Question | <u> </u> | 10101 | Answer (0-4) | 0.0 |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | • | |
| E5 | It's right, it doesn't need | any other tool | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.7 |
| | Question | 1 | | Answer (0-4) | *** |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| | The data needed by the service exist in my company/network in the proper format and can be easily | made | | | |
| F3 | available for the service. | | | 3 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | It's right, it doesn't need | any other tool | | | |
| | tability to network/collaborative environment) | | Total | | 3.8 |
| Ref# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | | |
| G3 | The service takes into account safety and security. | | 4 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| | Assessment | | | | |
| Functional | Dimension | | | | |
| | | | | TSS Results | |
| | 000 | | | | |
| TSS Succ | - | | | | |
| TSS Succ TSS Partia | | | | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

TSS_{success}

Functionalities

| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|-------------------|---|---------------------|--|--|--|--|
| Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic accordisting information about a car part in the Fco-Design Dashboard | | | | | |

Remarks

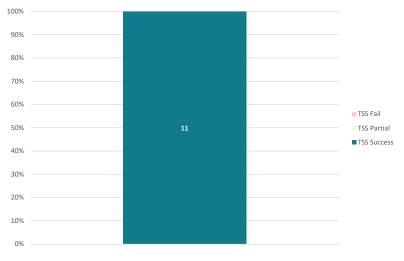
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card. 11
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. TSS_{partial}

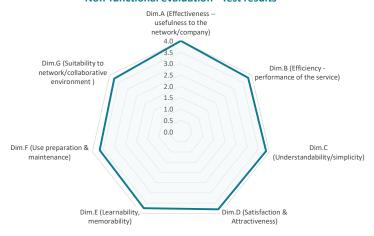
Expected Results

| | | YES | | | | |
|--|--|-----------------|------------|---|--|--|
| Access to the Circularity Web Platform | ess to the Circularity Web Platform Circularity Web Platform shows login page | | No comment | | | |
| Login to the Platform | User successfully logged in | YES | No comment | | | |
| User redirected to home page | Home page correctly opened | YES | No comment | | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | No comment | | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | No comment | | | |
| Click the "OPEN ECO" button in the "Eco-Design Module" card | Eco-design dashboard is shown for the selected component | YES | No comment | | | |
| Assess component overall stats section | All relevant information for the desired section is displayed | YES | No comment | | | |
| Assess "Top 5 metals" section | All relevant information for the desired section is displayed | YES | No comment | | | |
| Select an option from the metals dropdown on the right of the section | | YES | No comment | | | |
| Hover the mouse over the info icon next to the "By | A tooltip explaining the sub-title meaning appears | YES | No comment | | | |
| thermodynamic rarity" sub-section title | | | | | | |
| Assess the "Plastic characterization" section | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | YES | No comment | No comment | | |
| Assess the "Disassemblability metrics" section | The appropriate disassemblability metrics are shown | YES | No comment | | | |
| Assess the "Eco-Design recommendations" | The proper eco-design recommendations are displayed coherently with the metrics above | YES | No comment | | | |
| Assess the "Semantic Social Network Analysis" section | The SSNA tool description is clear and understandable | YES | No comment | | | |
| Click the "Open documentation" button | The SSNA tool documentation opens in a new tab | YES | No comment | | | |
| Click the "Open SSNA Tool" button | The SSNA tool opens in a new tab | YES | No comment | | | |
| Non-Functional Evaluation | | | | | | |
| Dim.A (Effectiveness usefulness to the netwo | rk/company) | | Total | 4.0 | | |
| Ref # Question | | • | Ansy | wer (0-4) | | |
| | ctive and benefit of the service to my organization/network. | | | `-´- | | |
| - saving costs - increasing income - saving time, accelerating proces - decreasing risks - improving quality - sharing information - attracting customers | ses | | 4 | | | |
| boosting learning and innovatior | | | | | | |
| boosting learning and innovation supporting networking with other | | | | | | |
| supporting networking with other | | | | 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned What could be improved to make | r organizations | | | 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned | r organizations business objectives / perform the tasks with the service. e more value of the tool/service? | I any other too | | 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned What could be improved to make | r organizations business objectives / perform the tasks with the service. | any other too | | | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) | r organizations business objectives / perform the tasks with the service. e more value of the tool/service? | any other too | Total | 3.8 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question | r organizations business objectives / perform the tasks with the service. e more value of the tool/service? It's right, it doesn't need | | Total | 3.8 wer (0-4) | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question The time and resources required | r organizations business objectives / perform the tasks with the service. e more value of the tool/service? | | Total | 3.8 wer (0-4) | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total | 3.8 wer (0-4) 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref# Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. | | Total | 3.8 wer (0-4) 4 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. | | Total | 3.8 wer (0-4) 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. | | Total | 3.8 wer (0-4) 4 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total Ans. | 3.8 wer (0-4) 4 4 4 3 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit B6 What could be improved to mak | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total Ansı | 3.8 wer (0-4) 4 4 4 3 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit B6 What could be improved to mak Dim.C (Understandability/simplicity) | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total Ansı | 3.8 wer (0-4) 4 4 4 3 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit B6 What could be improved to mak Dim.C (Understandability/simplicity) Ref # Question | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total Ansı | 3.8 wer (0-4) 4 4 4 3 4 3 4 3.9 wer (0-4) | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit What could be improved to mak Dim.C (Understandability/simplicity) Ref # Question The service structure and logic is | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. my company/ network. ble & fast performance of the tasks. te more value of the tool/service? It's right, it doesn't need leasy and self-clear to understand and recognizable. | | Total Ansı | 3.8 wer (0-4) 4 4 4 4 3 4 3 4 3.9 wer (0-4) 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit What could be improved to mak Dim.C (Understandability/simplicity) Ref # Question The service structure and logic is | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. It is right, it doesn't need to achieve the objectives with the service are reasonable/moderate. | | Total Ansı | 3.8 wer (0-4) 4 4 4 3 4 3 4 3.9 wer (0-4) | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit What could be improved to mak Dim.C (Understandability/simplicity) Ref # Question The service structure and logic is | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. my company/ network. ble & fast performance of the tasks. te more value of the tool/service? It's right, it doesn't need easy and self-clear to understand and recognizable. of or my organization and in line with TREASURE terminology | | Total Ansı | 3.8 wer (0-4) 4 4 4 4 3 4 3 4 3.9 wer (0-4) 4 | | |
| - supporting networking with othe A3 It is easy to achieve the planned A4 What could be improved to mak Dim.B (Efficiency - performance of the service) Ref # Question B1 The time and resources required B2 The service runs fast enough. B3 The service does not require too B4 All the functions are beneficial for B5 The service structure allows flexit What could be improved to mak Dim.C (Understandability/simplicity) Ref # Question C1 The service structure and logic is C2 The concepts are understandable C3 The service offers sufficient guida | r organizations business objectives / perform the tasks with the service. te more value of the tool/service? It's right, it doesn't need to achieve the objectives with the service are reasonable/moderate. many steps to achieve the result. my company/ network. ble & fast performance of the tasks. te more value of the tool/service? It's right, it doesn't need easy and self-clear to understand and recognizable. of or my organization and in line with TREASURE terminology | any other too | Total Ansı | 3.8 wer (0-4) 4 4 4 3 4 3 4 3.9 wer (0-4) 4 4 | | |

| The support to business processes / tasks is clear. The user can understand his/her role actions required. | and the purpose of the | 3 | | |
|---|---|-------|----------------|--|
| The service is simple enough for practical use. The tasks do not look complex to perform required for input. | . It is clear what is | 4 | | |
| C7 The output of the service is clear and understandable. | | 4 | | |
| What could be improved to make more value of the tool/corvice? | | | · | |
| | doesn't need any other tool | | | |
| Dim.D (Satisfaction & Attractiveness) | decent need any earler teer | Total | 3.8 | |
| Ref# Question | | | Answer (0-4) | |
| D1 The service is attractive to the user. I feel satisfied and comfortable when using the service | ce. | | 4 | |
| D2 I can keep the control of the service, for example by pausing& continuing, canceling, sav | | 4 | | |
| D3 The mental workload when using the service is low. | | | 4 | |
| D4 The service rewards the user also personally | | | 3 | |
| D5 I could recommend the service for other people/organizations. | | | 4 | |
| What could be improved to make more value of the tool/carvice? | | | 7 | |
| D6 | doesn't need any other tool | | | |
| lim.E (Learnability, memorability) | decent flood dily office (00) | Total | 3.8 | |
| ef # Question | | 10101 | Answer (0-4) | |
| E1 It is easy to start using the service and to perform the main tasks. | | 4 | | |
| E2 It is easy to learn new features/ functionalities. | | 3 | | |
| | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | |
| E4 The service offers sufficient training support. | | 4 | | |
| What could be improved to make more value of the tool/service? | | | | |
| It's right, it o | doesn't need any other tool | | | |
| im.F (Use preparation & maintenance) | | Total | 3.7 | |
| tef# Question F1 The take-up of the service does not require high preparation. | | | Answer (0-4) 4 | |
| F2 Technical installation does not require specific setups or additional downloads. | | | 4 | |
| The data needed by the service exist in my company/network in the proper format and call available for the service. | an be easily made | 4 | | |
| F4 The service can be easily customized/ configured to my environment/ network. | i i | 3 | | |
| F5 The service can be easily shared in the network. | | 3 | | |
| F6 The service does not require specific knowledge from the users. | | 3 | | |
| F7 The service is easy to take up also for SMEs. | i | 4 | | |
| F8 The service does not require extensive change of business processes. | | 4 | | |
| F9 The service does not require high maintenance. | | | 4 | |
| What could be improved to make more value of the tool/service? | • | | | |
| F10 It's right, it o | doesn't need any other tool | | | |
| im.G (Suitability to network/collaborative environment) | | Total | 3.8 | |
| ef# Question G1 The service supports collaboration and interoperability for my network. | | | Answer (0-4) | |
| G2 The service is suitable for heterogeneous users and different networks. | 1 / / | | | |
| G3 The service takes into account safety and security. | | 4 | | |
| G4 The service usage does not require high negotiation or complex agreements in the network. | ork. | 4 | | |
| lesults Assessment | | | | |
| unctional Dimension | | | | |
| uncuonal binichiston | | | TSS Possilte | |
| SS Success | | | TSS Results 1 | |
| SS Partial | | | | |
| SS Fail | | | | |



| | I |
|--|---------|
| Non-functional Dimension | |
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform |
|-------------------|---|------------------------------------|--|
| Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Access and expert specific information ab | out material composition for a car | r part in the Fee Decign Dechhoard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)
 Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| TSS _{success} | 13 | | TSS _{partial} | 0 | | TSS _{fail} | | 0 |
|---|-----------------------|---------------|--|--------------------|------------------|---------------------|------------|---|
| Functionalities | | | Expected Results | | | Passed | Remarks | |
| Access to the Circularity W | eb Platform | | Circularity Web Platform shows log | in page | | YES | No comment | |
| Login to the Platform | Login to the Platform | | | | | YES | No comment | |
| User redirected to home pa | age | | Home page correctly opened | | | YES | No comment | |
| Search for "combimeter" c | ar part | | List of relevant car parts shows up | | | YES | No comment | |
| Select component to visua | lize | | Modules selection page is shown for | r the selected cor | mponent | YES | No comment | |
| Click the "OPEN ECO" but | ton in the "Eco | -Design | Eco-design dashboard is shown for | the selected com | ponent | YES | No comment | |
| Navigate to the "By weight metals" section | " sub-section | of the "Top 5 | "By weight" sub-section of the "Top has a "Details" button above the co | | | YES | No comment | |
| Press the "Details" button a stacked bar chart | above the cor | esponding | "Metals by weight" page is correctly shown | | YES | No comment | | |
| Select a filtering method fr next to "Show" | om the dropd | | Metals table correctly displays all the relevant information accounting for the user selection | | YES | No comment | | |
| Select a filtering method fr next to "Assess" | om the dropd | | Metals table correctly displays all the for the user selection | ne relevant inform | ation accounting | YES | No comment | |
| Assess the "Metals by weig | ght" table | | Metals table correctly displays all the selected filtering methods | ne relevant inform | ation for the | YES | No comment | |
| Hover the mouse over the info icon next to the "Share over the total weight", "Supply risk" and "SMI" table column titles | | ppears | YES | No comment | | | | |
| Press the "Export" button Data are exported successfully in ".xlsx" format, following the applied filters | | | wing the applied | YES | No comment | | | |
| Non-Functional Eval | uation | | | | | | | |

Dim.A (Effectiveness -- usefulness to the network/company) Total

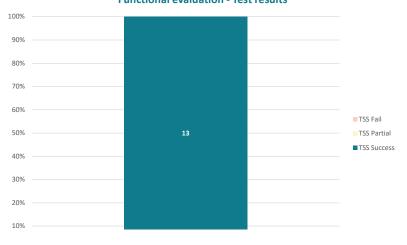
| Dim.A (Eff | ectiveness usefulness to the network/company) | | Total | 4.0 |
|------------|---|--------|-------|----------|
| Ref# | Question | | Answe | er (0-4) |
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | | | 4 |
| | The outcome of the service is important / useful for the company/network. The service creates value | for my | | |
| 1 | company &network, for example by | | | |
| | - saving costs | | | |
| | - increasing income | | | |
| | - saving time, accelerating processes | | | |
| A2 | - decreasing risks | | 4 | 4 |
| | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | · | | 1 |
| A4 | What could be improved to make more value of the tool/service? | | | |

| A4 | It's right, it doesn't need any other tool | | | | | | | |
|------------|---|---------------|-------|----------|--|--|--|--|
| Dim.B (Eff | ciency - performance of the service) | | Total | 4.0 | | | | |
| Ref# | Question | | Answe | er (0-4) | | | | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 4 | | | | | |
| B2 | The service runs fast enough. | | 4 | | | | | |
| В3 | The service does not require too many steps to achieve the result. | | 4 | | | | | |
| B4 | All the functions are beneficial for my company/ network. | | | 4 | | | | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | 4 | | | | | |
| В6 | What could be improved to make more value of the tool/service? | | | | | | | |
| | It's right, it doesn't need | any other too | | _ | | | | |

| | it's right, it doesn't need any other tool | | | | | | | |
|------------|---|-------|-----------|--|--|--|--|--|
| Dim.C (Und | lerstandability/simplicity) | | Total 3.9 | | | | | |
| Ref# | Question | Answe | er (0-4) | | | | | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | | | | | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | 4 | | | | | |

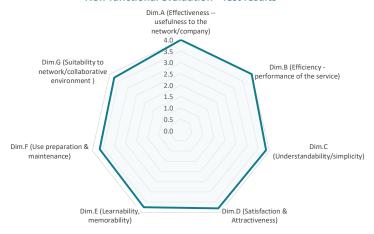
| C3 | The service offers sufficient guidance | | | | |
|---|---|-------------|--------------|-----|--|
| | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | |
| C4 | TREASURE style. | | 4 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. | | 4 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | | 4 | | |
| C7 | The output of the service is clear and understandable. | | 4 | | |
| C8 | What could be improved to make more value of the tool/service? | • | | | |
| | It's right, it doesn't need any other | tool | | | |
| Dim.D (Sat | isfaction & Attractiveness) | Total | | 3.8 | |
| Ref# | Question | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and start again. | ting | 3 | | |
| D3 | The mental workload when using the service is low. | | 4 | | |
| D4 | The service rewards the user also personally | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| Б0 | What could be improved to make more value of the tool/service? | | | | |
| D6 | It's right, it doesn't need any other | tool | | | |
| Dim.E (Lea | rnability, memorability) | Total | | 3.8 | |
| Ref# | Question | i | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| | What could be improved to make more value of the tool/service? | • | | | |
| E5 | It's right, it doesn't need any other | tool | | | |
| Dim.F (Use | preparation & maintenance) | Total | | 3.7 | |
| Ref# | Question | i | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 3 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 4 | | |
| | What could be improved to make more value of the tool/service? | • | | | |
| F10 | It's right, it doesn't need any other | tool | | | |
| Dim.G (Sui | tability to network/collaborative environment) | Total | | 3.8 | |
| Ref# | Question | ļ | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | 4 | | |
| | The service is suitable for heterogeneous users and different networks. | | 3 | | |
| G2 | The service is suitable for fleterogeneous users and different fletworks. | | 4 | | |
| | The service takes into account safety and security. | | 4 | | |
| G2 | | | 4 | | |
| G2 G3 G4 | The service takes into account safety and security. | | | | |
| G2 G3 G4 Results A | The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | | | | |
| G2 G3 G4 Results A | The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment | | | | |
| G2 G3 G4 Results A | The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | | 4 | | |
| G2 G3 G4 Results / Functional | The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension ess | | 4 | 1 | |
| G2 G3 G4 Results A | The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension ess | | 4 | | |





| 0% | | |
|----|--|--|
| U% | | |

| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | |
| Dim.F (Use preparation & maintenance) | 3.7 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | | |
| | Total | | | | |
| | 3.8 | | | | |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

TSS_{success}

| Test Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---|---|---------------------|---|--|--|--|
| Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Visualize basic recycling information about a car part in the Recyclability Dashboard | | | | | | |

Remarks

Test Script

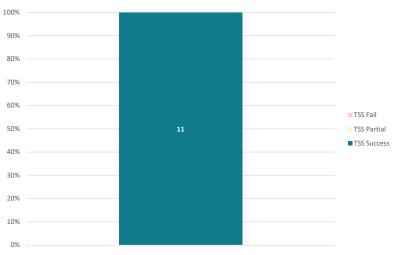
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.

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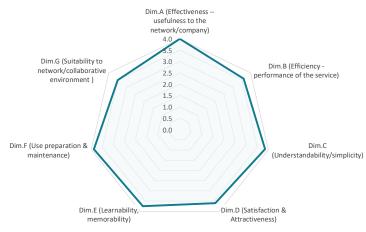
5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. TSS_{partial}

| Functional | ities | Expected Results | Passed | Remarks | | |
|----------------------------|--|--|----------------|------------|-----------|--|
| Access to the | ne Circularity Web Platform | Circularity Web Platform shows login page | YES | No comment | | |
| Login to the | Platform | User successfully logged in | YES | No comment | | |
| User redire | cted to home page | Home page correctly opened | YES | No comment | | |
| Search for ' | 'combimeter" car part | List of relevant car parts shows up | YES | No comment | | |
| Select com | ponent to visualize | Modules selection page is shown for the selected component | YES | No comment | | |
| | PEN REC" button in the "Disassemblability | Recyclability dashboard is shown for the selected component | YES | No comment | | |
| | ponent overall stats section | All relevant information for the desired section is displayed | YES | No comment | | |
| | timization objective of recycling" section | All relevant recycling optimization objectives is displayed | YES | No comment | | |
| Assess "Ge section | neral composition build-up" pie chart | All relevant information for the desired section is displayed | YES | No comment | | |
| | cycling rates" section | All relevant information for the desired section is displayed with respect to the current recyclability level | YES | No comment | | |
| | ferent recycling level using the dropdown | The recycling rates and processing routes change accordingly | YES | No comment | | |
| | "Individual recycling rates" sub-section | All relevant information for the desired sub-section is displayed with respect to the current recyclability level and processing route | YES | No comment | | |
| | ferent processing route using the nenu next to the "Details" button. | The individual recycling rates flower chart updates accordingly | YES | No comment | | |
| | edback for recyclers" section | All relevant information for the desired section is displayed | YES | No comment | | |
| Press the "A | Add feedback" button | The add feedback popup appears | YES | No comment | | |
| Insert some feedback" b | feedback text, then press the "Add button | The feedback is correctly inserted into the feedbacks table | YES | No comment | | |
| Non-Fun | ctional Evaluation | | | | | |
| Dim.A (Effe | ectiveness usefulness to the network/c | ompany) | | Total | 4.0 | |
| Ref# | Question | | | Ansv | ver (0-4) | |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | 4 | |
| A2 | company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation | | | | 4 | |
| | - supporting networking with other org | | | | | |
| A3 | It is easy to achieve the planned busi | ness objectives / perform the tasks with the service. | | | 4 | |
| Λ.4 | What could be improved to make m | ore value of the tool/service? | | | | |
| A4 | | It's right, it doesn't need | any other tool | | | |
| Dim.B (Effi | ciency - performance of the service) | | L | Total | 3.6 | |
| | Question | chieve the objectives with the service are reasonable/moderate. | | | ver (0-4) | |
| B2 | The service runs fast enough. | s and objectives with the service are reasonable/inductate. | | | 4 | |
| | | v stope to achieve the recult | | | 3 | |
| B3 | The service does not require too man | , | | | | |
| B4 | All the functions are beneficial for my | . , | | | 3 | |
| B5 | The service structure allows flexible 8 | - | | | 4 | |
| В6 | What could be improved to make m | ore value of the tool/service? It's right, it doesn't need | any other tool | | | |
| Dim.C (Und | derstandability/simplicity) | , | | Total | 3.9 | |
| Ref# | Question | | | | ver (0-4) | |
| | | y and self-clear to understand and recognizable. | | Allsv | 4 | |
| C1 | | | | | | |
| C2 | | my organization and in line with TREASURE terminology | | | 4 | |
| C3 | The service offers sufficient guidance | | | | 3 | |
| C4 | The responses to user actions are und TREASURE style. | derstandable. The look and feel is self explanatory and follows the | ne | | 4 | |
| | TREASURE SIGNE. | | | | | |

| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of t | he | 4 | | |
|--|--|---------|---|--|--|
| Co | actions required. | | 7 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | | 4 | | |
| C7 | The output of the service is clear and understandable. | | 4 | | |
| C8 | What could be improved to make more value of the tool/service? | • | | | |
| Co | It's right, it doesn't need any oth | er tool | | | |
| Dim.D (Sat | isfaction & Attractiveness) | Total | 3.6 | | |
| Ref# | Question | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and s again. | tarting | 4 | | |
| D3 | The mental workload when using the service is low. | | 3 | | |
| D4 | The service rewards the user also personally | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| D6 | It's right, it doesn't need any oth | er tool | | | |
| im.E (Lea | rnability, memorability) | Total | 3.8 | | |
| | Question | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | 3 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| | It's right, it doesn't need any oth | er tool | | | |
| Dim.F (Use | preparation & maintenance) | Total | 3.9 | | |
| lef# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| | | | 4 | | |
| | , | | · | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F6 F7 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | | 4 | | |
| F6 F7 F8 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 4 4 4 | | |
| F6 F7 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | 4 | | |
| F6 F7 F8 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | or tool | 4 4 4 | | |
| F6 F7 F8 F9 F10 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tools. | | 4 4 4 4 | | |
| F6 F7 F8 F9 F10 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tools on the tool of t | Total | 4 4 4 4 4 3.5 | | |
| F6 F7 F8 F9 F10 Dim.G (Suit | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tools to network/collaborative environment. | Total | 4 4 4 4 4 3.5 Answer (0-4) | | |
| F6 F7 F8 F9 F10 Dim.G (Suit | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tools to network/collaborative environment. Question The service supports collaboration and interoperability for my network. | Total | 4 4 4 4 4 3.5 Answer (0-4) | | |
| F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any often tool to network/collaborative environment to the service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Total | 4 4 4 4 4 3.5 Answer (0-4) | | |
| F6 F7 F8 F9 F10 Dim.G (Suit | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any other tools to network/collaborative environment. Question The service supports collaboration and interoperability for my network. | Total | 4 4 4 4 4 3.5 Answer (0-4) | | |
| F6 F7 F8 F9 F10 Dim.G (Suit G1 G2 G3 G4 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total | 4 4 4 4 4 3.5 Answer (0-4) | | |
| F6 F7 F8 F9 F10 Dim.G (Suit G1 G2 G3 G4 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | Total | 4 4 4 4 4 3.5 Answer (0-4) 3 3 4 | | |
| F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results # | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total | 4 4 4 4 4 3.5 Answer (0-4) 3 3 4 | | |
| F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment | Total | 4 4 4 4 4 3.5 Answer (0-4) 3 3 4 | | |
| F6 F7 F8 F9 F10 Dim.G (Suit Gf # G1 G2 G3 G4 Results A | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total | 4 4 4 4 4 3.5 Answer (0-4) 3 3 4 | | |
| F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results # | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? It's right, it doesn't need any off tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total | 4 4 4 4 4 3.5 Answer (0-4) 3 3 4 | | |



| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | |
| Dim.E (Learnability, memorability) | 3.8 | | | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.7 | | | | |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | | | |
|--|---|---------------------|--|--|--|--|
| Actors involved | Marcelo Liendo Ludueña (ILSSA) (Environmental Manager in Grupo Lopez Soriano) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Assess specific information about individual recycling rates for a car part in the Recyclability Dashboard | | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.

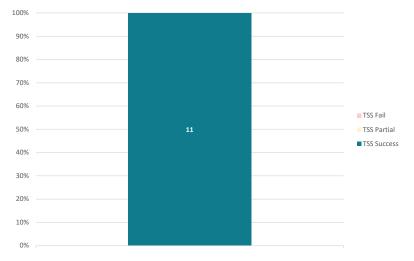
The output of the service is clear and understandable.

What could be improved to make more value of the tool/service?

6. Click the "Details" button net to the recycling routes dropdown menu.
7. Assess that all the recycling rates for the selected recycling level and recycling route are present and correct.

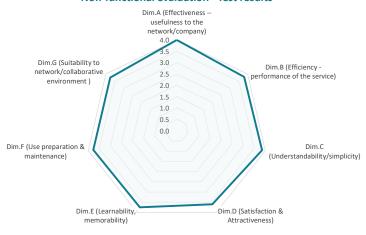
| TSS _{st} | uccess | 11 | | TSS _{partial} | 0 | | | TSS _{fail} 0 | | 0 |
|-------------------|-------------------------------------|--------------|-----------------|--|------------------------|----------------------|----------------|-----------------------|--------------|-----|
| Functionalitie | | | | Expected Results | | | Passed | Remarks | | |
| Access to the | Circularity We | b Platform | | Circularity Web Platform shows log | in page | | YES | No comment | | |
| Login to the Pl | Platform | | | User successfully logged in | | | YES | No comment | | |
| | ed to home page | ne er | | Home page correctly opened | | | YES | No comment | | |
| | ombimeter" car | | | List of relevant car parts shows up | | | YES | No comment | | |
| | nent to visualiz | | | Modules selection page is shown for | or the colocted cor | nnonont | YES | No comment | | |
| | EN REC" butto | | a valability | | | | | No comment | | |
| | | | | Recyclability dashboard is shown for | | | YES | No comment | | |
| | ne "Individual re "Recycling rat | | | "Individual recycling rates" sub-sec section is present and has a "Detail | | | YES | No comment | | |
| section of the | Recycling rat | es section | | routes dropdown menu | is bullon next to ti | ie recycling | TES | No comment | | |
| Proce the "Det | tails" button ne | vt to the re | ovolina routos | "Individual recycling rates" page is | corrootly chown | | | | | |
| dropdown mei | | xi to the re | cycling routes | Individual recycling rates page is | Correctly shown | | YES | No comment | | |
| | | 41 4 | -1-4-4 | D | -111 411 | -4 !f | | | | |
| dropdown mer | clability level fr | om the top- | -rignt | Recycling rates table correctly disp accounting for the user selection | plays all the relevan | nt information | YES | No comment | | |
| | | | | , , | 1 00 | | | | | |
| | cling route fron | n the secon | id dropdown | Recycling rates table correctly disp | plays all the relevan | nt information | YES | No comment | | |
| menu on the ri | Ü | | | accounting for the user selection | | | | | | |
| Assess the "Ra | ates by recycli | ng route" ta | able | Recycling rates table correctly disp | | nt information for | YES | No comment | | |
| | | | | the selected recyclability level and | recycling route | | 120 | The Commons | | |
| Non-Funct | tional Evalu | ation | | | | | | | | |
| Dim.A (Effect | tiveness use | efulness to | the network/c | ompany) | | | | Total | | 4.0 |
| Ref# IQ | Question | | | | | | | l , | Answer (0-4) | |
| | t is easy to ur | derstand | the objective | and benefit of the service to my | v organization/ne | twork | | | | |
| | | | | tant / useful for the company/ne | | | for my | 1 | | |
| | company ≠ | | | | | | | | | |
| | saving costs | | onampio by | | | | | | | |
| | increasing in | | | | | | | | | |
| | - | | ng processes | | | | | | | |
| | decreasing r | | ng processes | | | | | | 4 | |
| | improving qu | | | | | | | | 7 | |
| | sharing infor | | | | | | | | | |
| | attracting cu | | | | | | | | | |
| | | | innovation | | | | | | | |
| | boosting lear | | | | | | | | | |
| | | | with other org | | alsa with the earl | inn | | | 4 | |
| | | | <u> </u> | iness objectives / perform the tas | sks with the servi | ice. | | | | |
| A4 W | vnat could b | e improve | ed to make m | ore value of the tool/service? | 144 1 14 | | | | | |
| | | | | | It s right, | it doesn't need | any other tool | | | |
| Dim.B (Efficie | ency - perforn | nance of th | e service) | | | | | Total | | 3.8 |
| Ref# Q | Question | | | | | | | ļ <i>ļ</i> | Answer (0-4) | |
| B1 T | The time and | resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | | 4 | |
| B2 T | The service ru | ıns fast en | ough. | | | | | | 4 | |
| | | | | y steps to achieve the result. | | | | 4 | | |
| | | | • | company/ network. | | | | 3 | | |
| | | | | k fast performance of the tasks. | | | | 4 | | |
| | | | | <u>'</u> | | | | L | 7 | |
| В6 | vilat could b | e improve | eu to make m | ore value of the tool/service? | *** | N 1 1 1 1 | | | | |
| | | | | | ıt s rıght, | it doesn't need | any otner tool | | | |
| | rstandability/s | implicity) | | | | | | Total | | 3.9 |
| Ref#Q | Question | | | | | | | | Answer (0-4) | |
| C1 T | The service st | ructure ar | nd logic is eas | y and self-clear to understand a | nd recognizable. | | | | 4 | |
| C2 T | The concepts | are under | standable for | my organization and in line with | TREASURE term | ninology | | | 4 | |
| | | | ient guidance | , , | | | | | 4 | |
| Т | | | 0 | derstandable. The look and feel | is self explanator | v and follows th | e | | | |
| (:4 | REASURE st | | | asistandolo. The look did fool | con explanator | , 10110113 111 | | | 4 | |
| Т | | , | nrocesses / t | asks is clear. The user can unde | erstand his/her re | le and the nurn | ose of the | 1 | | |
| Ch | ctions requir | | , processes / t | acito la cicar. The user can unue | ,, stanta 1/13/1101 TU | no and the pulp | COC OI IIIC | | 4 | |
| | | | ough for proc | ctical use. The tasks do not look | compley to perfe | rm It is clear w | hat is | | | |
| (16 | | | lough for prac | buodi use. The tasks up 110t 100k | complex to bello | niii. It is cical Wi | iat is | | 3 | |
| 07 7 | required for input. | | | | | | | | | |

| 00 | It's right, it doesn't need any other | r tool | | | | |
|------------|---|----------------|----------------|--|--|--|
| Dim.D (Sat | isfaction & Attractiveness) | Total | 3.6 | | | |
| Ref# | Question | ! | Answer (0-4) | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and sta again. | rting | 3 | | | |
| D3 | The mental workload when using the service is low. | - | 4 | | | |
| D4 | The service rewards the user also personally | 1 | 3 | | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | | |
| | What could be improved to make more value of the tool/service? | _ | | | | |
| D6 | It's right, it doesn't need any other | r tool | | | | |
| Dim.E (Lea | rnability, memorability) | Total | 3.8 | | | |
| Ref# E1 | IQuestion It is easy to start using the service and to perform the main tasks. | | Answer (0-4) | | | |
| E2 | It is easy to learn new features/ functionalities. | | 3 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | | |
| E4 | The service offers sufficient training support. | | 4 | | | |
| | What could be improved to make more value of the tool/service? | _ | · | | | |
| E5 | It's right, it doesn't need any other | r tool | | | | |
| Dim.F (Use | preparation & maintenance) | Total | 3.8 | | | |
| Ref# | Question | 1 | Answer (0-4) | | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | | |
| F5 | The service can be easily shared in the network. | | 3 | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| 110 | It's right, it doesn't need any other | r tool | | | | |
| Dim.G (Sui | itability to network/collaborative environment) | Total | 3.8 | | | |
| Ref# G1 | Question The service supports collaboration and interoperability for my network. | | Answer (0-4) 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | | |
| G3 | The service takes into account safety and security. | | 4 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | | |
| Results A | Assessment | | | | | |
| Functional | Dimension | | | | | |
| TSS Succ | nage. | | TSS Results | | | |
| TSS Partia | | + | 11 | | | |
| TSS Fail | ai . | | 0 | | | |
| 100 Fall | | | 0 | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |

| Dim.C (Understandability/simplicity) | 3.9 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.8 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |





Short Description

TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case References Test Case ID CWP_DIS_ADV_UT_01 Components involved TREASURE Circularity Web Platform Actors involved Matteo Rubes (POLLINI) Contact Point Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com)

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.

Visualize advisory information about a car part in the Disassembly Advisory Dashboard

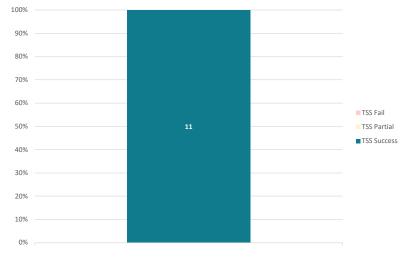
4. Click the "OPEN DIS" button in the "Disassembly Module" card.

The output of the service is clear and understandable.

5. Click the "Dis advisory" link on the top navbar.

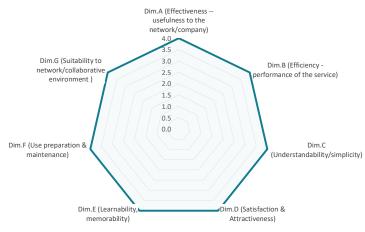
| TCC | rrectly reported in its dedicated card and is displayed in the app | | TOO | _ |
|---|--|-------------|---------------------|---------------|
| TSS _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| ınctionalities | Expected Results | Passed | Remarks | |
| cess to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| gin to the Platform | User successfully logged in | YES | | |
| er redirected to home page | Home page correctly opened | YES | | |
| arch for "combimeter" car part | List of relevant car parts shows up | YES | | |
| lect component to visualize | Modules selection page is shown for the selected component | YES | | |
| ck the "OPEN DIS" button in the "Disassemblability odule" card | Disassembly dashboard is shown for the selected component | YES | | |
| ck the "Dis advisory" link on the top navbar. | Disassembly advisor dashboard correctly opened | YES | | |
| sess "Electrical and electronic equipment" sub stion of the "Metals to be extracted" section | All relevant information for the desired sub-section is displayed | YES | | |
| sess time and cost metrics below the metals table | All relevant information for the desired sub-section is displayed | YES | | |
| just the "Disassembly cost per hour" value | The "Estimated disassembly cost" metric is adjusted accordingly | YES | | |
| sess "Thermodynamic rarity VS Revenue" sub ction of the "Metals to be extracted" section | All relevant information for the desired sub-section is displayed | YES | | |
| just the "Thermodynamic rarity value limit" and mit value for revenue" metrics | The lower limits for the "Thermodynamic rarity indicator" and "Revenue" metrics are adjusted accordingly in the chart | YES | | |
| ver with the mouse over a metal in the chart | A tooltip with specific metrics about the selected metal is shown | YES | † | |
| on-Functional Evaluation | | 1.50 | | |
| m.A (Effectiveness usefulness to the network | (company) | | Total | 4.0 |
| • | company) | | Total . | 4.0 |
| # Question | | | Answe | er (0-4) |
| | rganizations siness objectives / perform the tasks with the service. | | | 4 |
| A4 What could be improved to make | more value of the tool/service? | | | |
| | | _ | | |
| n.B (Efficiency - performance of the service) | | | Total | 4.0 |
| # Question B1 The time and resources required to | achieve the objectives with the service are reasonable/moderate | | | er (0-4) 4 |
| B2 The service runs fast enough. | | | | 4 |
| B3 The service does not require too ma | ny steps to achieve the result. | | | 4 |
| B4 All the functions are beneficial for m | y company/ network. | | | 4 |
| B5 The service structure allows flexible | , , | | | 4 |
| B6 What could be improved to make | · | | • | |
| n.C (Understandability/simplicity) | | | Total | 4.0 |
| # IQuestion | | | | er (0-4) |
| | sy and self-clear to understand and recognizable. | | | |
| | | | | 4 |
| | r my organization and in line with TREASURE terminology | | | |
| C3 The service offers sufficient guidance The responses to user actions are under the TREASURE style. | e nderstandable. The look and feel is self explanatory and follows | the | | <u>4</u> 4 |
| , | tasks is clear. The user can understand his/her role and the pur | pose of the | | 4 |
| | actical use. The tasks do not look complex to perform. It is clear | what is | | 4 |
| | | | | |

| C8 | What could be improved to make more value of the tool/service? | | | | |
|------------|--|----------|-------|--------------|-----|
| | | _ | | | |
| | sfaction & Attractiveness) | <u> </u> | Total | | 4.0 |
| Ref# | Question | <u>i</u> | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | |
| F5 | The service can be easily shared in the network. | | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | | 4 | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | |
| G3 | The service takes into account safety and security. | | | 4 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| | Assessment | | | | |
| Functional | Dimension | | | | |
| T00.0 | | | | TSS Results | |
| TSS Succ | | | | | 1: |
| TSS Partia | 11 | | | | (|
| TSS Fail | | | | | (|



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |

| Dim.B (Efficiency - performance of the service) | 4.0 |
|--|-------|
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

TSS_{fail}

0

Test Case References CWP_REC_ADV_UT_01 Test Case ID Components involved TREASURE Circularity Web Platform Business: Veronica Antonello (veronica.antonello@txtgroup.com) Actors involved Matteo Rubes (POLLINI) **Contact Point** Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com)

Short Description Visualize advisory information about a car part in the Recyclability Advisory Dashboard

Test Script

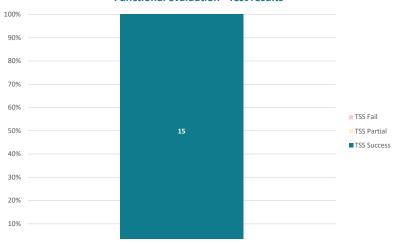
TSS_{su}

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Click the "Rec advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. TSS_{partia}

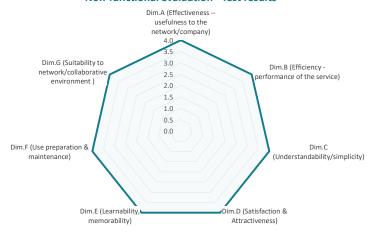
| Functionali | 41 | Expected Results | - I | Remarks | | |
|--|--|---|----------|--|---|-----|
| | | | Passed | Remarks | | |
| | ne Circularity Web Platform | Circularity Web Platform shows login page | YES | | | |
| Login to the | Platform | User successfully logged in | YES | | | |
| User redired | cted to home page | Home page correctly opened | YES | | | |
| Search for " | 'combimeter" car part | List of relevant car parts shows up | YES | | | |
| Select comp | ponent to visualize | Modules selection page is shown for the selected component | YES | | | |
| Click the "C | PEN REC" button in the "Recyclability | Recyclability dashboard is shown for the selected component | YES | | | |
| Click the "R | ec advisory" link on the top navbar. | Recyclability advisor dashboard correctly opened | YES | | | |
| Assess the | recycling route table in the "Determine | All relevant information for the desired table is displayed | | | | |
| which comb | pination of disassembly path and recycling | · · | | | | |
| process to i | mplement (from component to material)" | | YES | | | |
| section | | | | | | |
| Press the in | fo button at the right of one recycling | The "DIS & REC route X" popup appears | | | | |
| route | | | YES | | | |
| Assess the i | materials in the "DIS & REC route X" table | All relevant information for the desired table is displayed | | | | |
| | | . , | YES | | | |
| Assess the | revenue indicator | All relevant information for the desired section is displayed | | | | |
| , 100000 1110 1 | Tovonao marcator | The contain morning of the desired economic displayed | YES | | | |
| Adjust the " | Total cost" value | The "Profit" indicator updates accordingly | - | | | |
| Aujust trie | Total cost value | The Profit indicator updates accordingly | YES | | | |
| | | | 153 | | | |
| Press the "C | Close" ("X") button | The "DIS & REC route X" popup closes | | | | |
| 1 1033 1110 0 | Slose (X) Button | The bio a NEO route X populp closes | YES | | | |
| Assess the ' | "Graphical integration approach" sub- | All relevant information for the desired section is displayed | | | | |
| section | Graphical integration approach Sub- | This relevant information for the desired section is displayed | YES | | | |
| | the mouse over a recycling route in the | A tooltip with specific metrics about the selected recycling route is | | | | |
| chart | the mouse over a recycling route in the | shown | YES | | | |
| | ctional Evaluation | S. IOWA | | | | |
| | ectiveness usefulness to the network/c | ompany) | | Total | _ | 4.0 |
| <u> </u> | | ompany) | | | (2.0) | 4.0 |
| | Question | | | Ar | nswer (0-4) | |
| | | | | | | |
| A1 | | and benefit of the service to my organization/network. | | | 4 | |
| AI | The outcome of the service is impor | e and benefit of the service to my organization/network. rtant / useful for the company/network. The service creates value | for my | | 4 | |
| AI | | | for my | | 4 | |
| AI | The outcome of the service is impor | | for my | | 4 | |
| AI | The outcome of the service is impor company &network, for example by | | for my | | 4 | |
| AI | The outcome of the service is impor company &network, for example by - saving costs | tant / useful for the company/network. The service creates value | ofor my | | 4 | |
| A1 | The outcome of the service is impor company &network, for example by - saving costs - increasing income | tant / useful for the company/network. The service creates value | e for my | | 4 | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes | tant / useful for the company/network. The service creates value | ∍ for my | | | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks | tant / useful for the company/network. The service creates value | ∍ for my | | | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality | tant / useful for the company/network. The service creates value | e for my | | | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers | tant / useful for the company/network. The service creates value | e for my | | | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information | rtant / useful for the company/network. The service creates valu e | e for my | | | |
| | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations. | rtant / useful for the company/network. The service creates valu e | e for my | | | |
| A2 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi | ganizations iness objectives / perform the tasks with the service. | e for my | | 4 | |
| A2 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations. | ganizations iness objectives / perform the tasks with the service. | e for my | | 4 | |
| A2 A3 A4 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make meaning and some supporting networking with other ord it is easy to achieve the planned busi | ganizations iness objectives / perform the tasks with the service. | e for my | Total | 4 | 40 |
| A2 A3 A4 Dim.B (Effici | The outcome of the service is imporcompany &network, for example by saving costs increasing income saving time, accelerating processes decreasing risks improving quality sharing information attracting customers boosting learning and innovation supporting networking with other ord It is easy to achieve the planned busi What could be improved to make microscipcia. | ganizations iness objectives / perform the tasks with the service. | e for my | Total | 4 | 4.0 |
| A2 A3 A4 Dim.B (Effice | The outcome of the service is imporcompany &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make miciency - performance of the service) | ganizations ness objectives / perform the tasks with the service. | e for my | | 4 4 Iswer (0-4) | 4.0 |
| A3 A4 Dim.B (Effii | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to accept the saving company to the service is important to the service in the service is important to the service in the service is important to the service is important to the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the | ganizations iness objectives / perform the tasks with the service. | e for my | | 4 4 aswer (0-4) 4 | 4.0 |
| A2 A3 A4 Dim.B (Effii Ref # B1 B2 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to an The service runs fast enough. | ganizations ness objectives / perform the tasks with the service. Nore value of the tool/service? Chieve the objectives with the service are reasonable/moderate. | e for my | | 4 4 1swer (0-4) 4 | 4.0 |
| A3 A4 Dim.B (Effii | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to accept the saving company to the service is important to the service in the service is important to the service in the service is important to the service is important to the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the service in the service is important to the service in the service is important to the service in the service in the service is important to the service in the | ganizations ness objectives / perform the tasks with the service. Nore value of the tool/service? Chieve the objectives with the service are reasonable/moderate. | e for my | | 4 Liswer (0-4) 4 4 4 | 4.0 |
| A2 A3 A4 Dim.B (Effii Ref # B1 B2 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to an The service runs fast enough. | ganizations ness objectives / perform the tasks with the service. nore value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. | e for my | | 4 4 1swer (0-4) 4 | 4.0 |
| A2 A3 A4 Dim.B (Effii B1 B2 B3 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to an other provided in the service of the ser | ganizations iness objectives / perform the tasks with the service. iner value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. company/ network. | e for my | | 4 Liswer (0-4) 4 4 4 | 4.0 |
| A2 A3 A4 Dim.B (Effii Ref # B1 B2 B3 B4 B5 | The outcome of the service is imporcompany &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to a The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ganizations iness objectives / perform the tasks with the service. inere value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. company/ network. chast performance of the tasks. | e for my | | 4 1 1 1 1 1 1 1 1 1 1 1 1 1 | 4.0 |
| A2 A3 A4 Dim.B (Effid Ref # B1 B2 B3 B4 | The outcome of the service is imporcompany &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to an Important of the service does not require too man All the functions are beneficial for my | ganizations iness objectives / perform the tasks with the service. inere value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. company/ network. chast performance of the tasks. | e for my | | 4 1 1 1 1 1 1 1 1 1 1 1 1 1 | 4.0 |
| A2 A3 A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m | ganizations iness objectives / perform the tasks with the service. inere value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. company/ network. chast performance of the tasks. | e for my | Ar | 4 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| A2 A3 A4 Dim.B (Efficence) Ref # B1 B2 B3 B4 B5 B6 Dim.C (Unc | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m ciency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m Gerstandability/simplicity) | ganizations iness objectives / perform the tasks with the service. inere value of the tool/service? chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. company/ network. chast performance of the tasks. | e for my | Ar A | 4 4 1swer (0-4) 4 4 4 4 | 4.0 |
| A2 A3 A4 Dim.B (Efficience) B1 B2 B3 B4 B5 B6 Dim.C (Unc Ref # | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other order to support to achieve the planned busi What could be improved to make must be received by the service of the | ganizations ness objectives / perform the tasks with the service. nore value of the tool/service? chieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. company/ network. & fast performance of the tasks. nore value of the tool/service? | e for my | Ar A | 4 4 4 4 4 4 4 4 4 1swer (0-4) | |
| A2 A3 A4 Dim.B (Efficence) Ref # B1 B2 B3 B4 B5 B6 Dim.C (Unc | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 What could be improved to make m Iterstandability/simplicity) Question The service structure and logic is eas | ganizations ness objectives / perform the tasks with the service. nore value of the tool/service? chieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. company/ network. k fast performance of the tasks. nore value of the tool/service? | e for my | Ar A | 4 4 1swer (0-4) 4 4 4 4 4 4 4 4 | |
| A2 A3 A4 Dim.B (Efficience) B1 B2 B3 B4 B5 B6 Dim.C (Unc Ref # | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 What could be improved to make m Iterstandability/simplicity) Question The service structure and logic is eas | ganizations ness objectives / perform the tasks with the service. nore value of the tool/service? chieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. company/ network. & fast performance of the tasks. nore value of the tool/service? | e for my | Ar A | 4 4 4 4 4 4 4 4 4 1swer (0-4) | |
| A2 A3 A4 Dim.B (Effii Ref # B1 B2 B3 B4 B5 B6 Dim.C (Unc Ref # C1 | The outcome of the service is impor company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to an The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 What could be improved to make m Iterstandability/simplicity) Question The service structure and logic is eas | ganizations ness objectives / perform the tasks with the service. nore value of the tool/service? chieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. company/ network. A fast performance of the tasks. nore value of the tool/service? | e for my | Ar A | 4 4 1swer (0-4) 4 4 4 4 4 4 4 4 | |

| C5 TREAS The sul actions | sponses to user actions are understandable. The look and feel is self explanatory and follows the SURE style. | , | | |
|---------------------------------------|--|------------|------------------|--|
| C5 actions | | | 4 | |
| The ser | pport to business processes / tasks is clear. The user can understand his/her role and the purpos s required. | ose of the | 4 | |
| (16 | ervice is simple enough for practical use. The tasks do not look complex to perform. It is clear when do not look complex to perform. It is clear when do not look complex to perform. | at is | 4 | |
| | utput of the service is clear and understandable. | | 4 | |
| C8 What c | could be improved to make more value of the tool/service? | • | | |
| | | | | |
| Dim.D (Satisfaction | , | Total | 4.0 | |
| Ref # Questio | | Ansv | ver (0-4) | |
| | ervice is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | |
| D2 again. | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | | 4 | |
| | ental workload when using the service is low. | | 4 | |
| | ervice rewards the user also personally | | 4 | |
| | d recommend the service for other people/organizations. | | 4 | |
| D6 What c | could be improved to make more value of the tool/service? | | | |
| Dim.E (Learnability, | / memorability) | Total | 4.0 | |
| Ref # Questio | · | | 4.0 ver (0-4) | |
| | sy to start using the service and to perform the main tasks. | | 4 | |
| | sy to learn new features/ functionalities. | | 4 | |
| | coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | |
| E4 The ser | ervice offers sufficient training support. | | 4 | |
| E5 What c | could be improved to make more value of the tool/service? | • | | |
| E3 | | | | |
| | ation & maintenance) | Total | 4.0 | |
| Ref # Questio | | Ansv | ver (0-4) | |
| | ke-up of the service does not require high preparation. | | 4 | |
| | ical installation does not require specific setups or additional downloads. | | 4 | |
| | ata needed by the service exist in my company/network in the proper format and can be easily n ble for the service. | ade | 4 | |
| F4 The ser | ervice can be easily customized/ configured to my environment/ network. | | 4 | |
| F5 The ser | ervice can be easily shared in the network. | | 4 | |
| | ervice does not require specific knowledge from the users. | | 4 | |
| | ervice is easy to take up also for SMEs. | | 4 | |
| $\overline{}$ | ervice does not require extensive change of business processes. | | 4 | |
| | ervice does not require high maintenance. | | 4 | |
| F10 | could be improved to make more value of the tool/service? | | | |
| Dim.G (Suitability to | o network/collaborative environment) | Total | 4.0 | |
| Ref # Questio | , , , , , , , , , , , , , , , , , , , | | ver (0-4) | |
| | ervice supports collaboration and interoperability for my network. | | 4 | |
| | ervice is suitable for heterogeneous users and different networks. | | 4 | |
| G3 The ser | ervice takes into account safety and security. | | 4 | |
| G4 The ser | ervice usage does not require high negotiation or complex agreements in the network. | | 4 | |
| G4 THE SE | ment | | | |
| Results Assessr | | | | |
| | ion | | | |
| Results Assessr | ion | TSS | Results | |
| Results Assessr | ion | TSS | Results 15 | |
| Results Assessr Functional Dimensi | ion | TSS | Results 15 0 | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| ı | Test Case ID | CWP ECO ADV UT 01 | Components involved | TREASURE Circularity Web Platform | |
|---|--|------------------------|---------------------|---|--|
| ı | Test Case ID | OWI _EGO_ADV_G1_01 | Components involved | THEAGONE Girdulanty Web Flation | |
| | Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@btgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | |
| ı | Short Description Visualize advisory information about a car part in the Eco-Design Advisory Dashboard | | | | |

Test Script

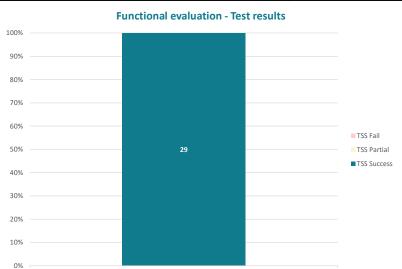
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
 5. Click the "Eco advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} 29 | TSS _{partial} 0 | | TSS _{fail} | 0 |
|---|--|--------|---------------------|-----------|
| Functionalities | Expected Results | Passed | Remarks | · · · |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | 1 | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | | | |
| Module" card | | YES | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | 1 | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | | | |
| disassembly and recycling" table in the "Step 1: | section | | | |
| Preliminary analysis of the reference design" sub- | | YES | | |
| section of the "Reference Design" section | | | | |
| Assess the "Eco-design feedback" table in the "Step 1: | All the relevant feedback is properly displayed for the desired sub- | | | |
| Preliminary analysis of the reference design" sub- | section | YES | | |
| section of the "Reference Design" section | | 120 | | |
| | | | | |
| Click the "Generate Guidelines" button in the "Step 2: | "Generate guidelines" popup is shown | | | |
| Generation of specific eco-design guidelines and | | YES | | |
| prioritization" sub-section | A tooltin with the guideline name a | | | |
| Hover the mouse over the info icon next to the guideline ID | A tooltip with the guideline name appears | YES | | |
| <u> </u> | A 31 (1 P (75 H) 2 P (10 1 P) 40H | | | |
| Click the info button next to the number of associated feedbacks for "Guideline 10" | A popup with the list of feedbacks associated to "Guideline 10" appears | YES | | |
| | The feedbacks popup closes | VE0 | | |
| Press the "X" button | | YES | | |
| Select a "Margin of improvement (MI)" and a "Relevance (R)" for each guideline | The "Level of circularity improvement" indicator corresponding to each guideline is computed | YES | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of | | | |
| Olick the Generate Button | the new design supported by the advisory" sub-section appears, | YES | | |
| | showing the guidelines radar-chart | 123 | | |
| Assess the guidelines radar chart in the "Step 3: | All relevant information for the desired section is displayed | | | |
| Generation of the new design supported by the | The recevant information for the desired section is displayed | YES | | |
| advisory" sub-section | | 120 | | |
| Hover the mouse over a point in the guidelines radar | A popup showing the "Level of circularity improvement" indicator | | | |
| chart | appears | YES | | |
| Select a guideline from the "Assessment for" | The "Associated feedback" and "Advisory" content in the table below | | | |
| dropdown, at the bottom of the guidelines radar chart | change accordingly | YES | | |
| | | | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | |
| Move between the "LCA" and "LCC" tabs below the | The scenarios radar chart updates accordingly | VEC | | |
| "OPEN SCENARIOS IN GRETA" button | | YES | | |
| Click the "REFRESH" button on the top right of the | The scenarios radar chart and comments section refresh | YES | | |
| "Scenarios comparison" section | | 120 | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | | |
| Hover the mouse over a point in the scenarios radar | A tooltip with the category value for the selected scenario appears | | | |
| chart | | YES | | |
| | | | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | | |
| OI: L. II. IIDOMAII OAD DEST SASS SESSE | T1 10 10 10 10 10 10 10 10 10 10 10 10 10 | 0 | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | YES | | |
| A | | | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | |
| Click the "DOWNLOAD" button at the top right of the | The metal wheel is exported in ".png" format | YES | | |
| "Metal Wheel (MARAS)" section | | . = - | | |
| Non-Functional Evaluation | | | | |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total | 4.0 |
| Ref# Question | | | Answ | ver (0-4) |
| A1 It is easy to understand the objective | and benefit of the service to my organization/network. | | | 4 |

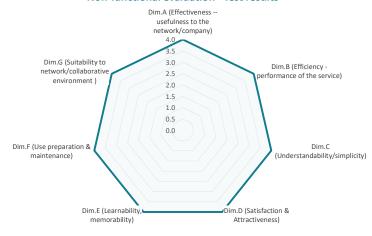
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| F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? Dim.G (Suitability to network/collaborative environment) Total 4.0 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | гз | | | - |
| F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? | F4 | The service can be easily customized/ configured to my environment/ network. | | 4 |
| F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? | F5 | The service can be easily shared in the network. | | |
| F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? Dim.G (Suitability to network/collaborative environment) Total 4.0 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | F6 | The service does not require specific knowledge from the users. | | |
| F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? Dim.G (Suitability to network/collaborative environment) Total 4.0 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | | | | |
| F10 What could be improved to make more value of the tool/service? Dim.G (Suitability to network/collaborative environment) Total 4.0 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 | | The service does not require extensive change of business processes. | | |
| Dim.G (Suitability to network/collaborative environment) Total 4.0 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | F9 | | | 4 |
| Dim.G (Suitability to network/collaborative environment) Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 G3 The service takes into account safety and security. | F10 | What could be improved to make more value of the tool/service? | | |
| Ref # Question Answer (0-4) G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 | 1 10 | | | |
| G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 | | | | |
| G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 | _ | | | |
| G3 The service takes into account safety and security. 4 | Ref# | Question | Answ | er (0-4) |
| | Ref# G1 | Question The service supports collaboration and interoperability for my network. | Answ | er (0-4) 4 |
| G4 The service usage does not require high negotiation or complex agreements in the network. 4 | Ref# G1 G2 | Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Answ | er (0-4) 4 4 |
| | Ref# G1 G2 | Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Answ | er (0-4) 4 4 |
| | G1 G2 G3 | Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | Answ | er (0-4) 4 4 4 |

| Results Assessment | | | | | |
|----------------------|-------------|--|--|--|--|
| Functional Dimension | | | | | |
| | TSS Results | | | | |
| TSS Success | 29 | | | | |
| TSS Partial | 0 | | | | |
| TSS Fail | 0 | | | | |



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |







TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform | | | | | |
|-------------------|--|---------------------|---|--|--|--|--|--|
| Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | | |
| Chart Danaristian | Chart Description Windling health discounting information should be proportionally the Discounting the Discoun | | | | | | | |

Test Script

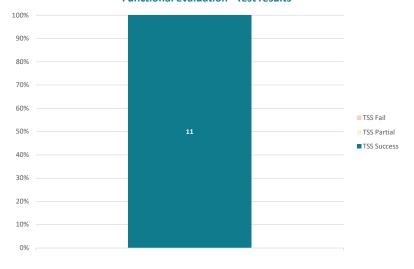
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

actions required.

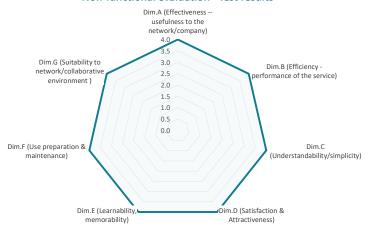
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{suc} | ccess | 11 | I | TSS _{partial} | 0 | | TSS _{fail} | | 0 |
|--|--|--|----------------|--|----------------------|-------------------|---------------------|--------------|-----------|
| Functionalities | | | | Expected Results | | | Passed | Remarks | |
| Access to the C | Circularity Wel | b Platform | | Circularity Web Platform shows log | n page | | YES | | |
| Login to the Pla | | | | User successfully logged in | | | YES | | |
| User redirected | | e | | Home page correctly opened | | | YES | | |
| Search for "com | | | | List of relevant car parts shows up | | | YES | | |
| Select compone | | | | Modules selection page is shown for | r the colocted cor | nnanant | | | |
| | | | | 1 0 | | | YES | | |
| Click the "OPEN | N DIS" button | in the "Disa | assemblability | Disassembly dashboard is shown for | r the selected cor | nponent | YES | | |
| Module" card | | | | | | | | | |
| Assess compon | | | | All relevant information for the desir | | - | YES | | |
| | ssess "Materials composition" & "Material Costs" pie All relevant information for the desired section is displayed | | | | | layed | YES | | |
| charts section | | | | | | | 120 | | |
| Assess "Disasse | sess "Disassembly times (manual)" section All relevant information for the desired section is displayed | | | | | YES | | | |
| Assess "Disasse | embly metrics | " section | | All relevant information for the desir | red section is disp | layed | YES | | |
| Insert desired va | /alue into hour | rly cost inp | ut in | The "Disassembly cost (lowerbound | l", "Disassembly c | ost" and | | | |
| "Disassemblabil | ility metrics" s | ection | | "Disassembly cost (upperbound)" n | netrics adjust their | values | YES | | |
| | | | | accordingly | | | | | |
| Assess "Cobot metrics" section All relevant information for the desired section is displayed | | | YES | | | | | | |
| Assess "Feedback for recyclers" section All relevant information for the desired section is displayed | | | | YES | | | | | |
| | | | | The feedback displayed changes de | | | | | |
| Select different recycling routes from the "Disassembly & recycling route" dropdown | | | | YES | 1 | | | | |
| Press the "Add t | | | | The add feedback popup appears | | | YES | | |
| Insert some feet | | | ne "Δdd | The feedback is correctly inserted f | or the currently of | elected recycling | .20 | | |
| feedback" butto | | ien press tr | ie Auu | route | or the currently St | siected recycling | YES | | |
| | | on priority | ve | | ed section is disp | laved | | | |
| | Assess "components extraction priority vs disassembly time" section | | | YES | | | | | |
| | Non-Functional Evaluation | | | | | | | | |
| | | | | | | | | | |
| Dim.A (Effectiv | | fulness to | tne network/c | ompany) | | | | Total | 4.0 |
| Ref# Qu | uestion | | | | | | | Ans | wer (0-4) |
| A1 It is | is easy to un | derstand | the objective | and benefit of the service to my | organization/ne | twork. | | | 4 |
| The | ne outcome | of the ser | vice is impor | tant / useful for the company/net | work. The service | ce creates value | for my | | |
| | mpany &net | | | , , | | | , | | |
| | saving costs | | oxampio 2) | | | | | | |
| | ncreasing in | come | | | | | | | |
| | 0 | | | | | | | | |
| | | | ng processes | | | | | | 4 |
| | decreasing ri | | | | | | | | 4 |
| | mproving qu | - | | | | | | | |
| | sharing inforr | | | | | | | | |
| - at | attracting cus | stomers | | | | | | | |
| - b | oosting lear | ning and i | nnovation | | | | | | |
| - SI | supporting ne | etworking | with other org | ganizations | | | | | |
| A3 It is | is easy to ac | hieve the | planned busi | ness objectives / perform the tas | ks with the serv | ice. | | | 4 |
| Wi | hat could be | e improve | ed to make m | ore value of the tool/service? | | | | | |
| A4 | | | | | | | | | |
| Dim.B (Efficien | nov - norform | ance of th | e service) | | | | | Total | 4.0 |
| | | ance or th | e sei vice) | | | | | | 4.0 |
| | uestion | | | | | | | Ans | wer (0-4) |
| B1 The | ne time and r | esources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | | 4 |
| B2 The | ne service ru | ns fast en | ough. | | | | | | 4 |
| B3 The | ne service do | es not red | quire too man | y steps to achieve the result. | | | | | 4 |
| | · · · · · · · · · · · · · · · · · · · | | | | | | 4 | | |
| | | | | fast performance of the tasks. | | | | 1 | 4 |
| | | | | <u>'</u> | | | | L | 7 |
| B6 W | nat could be | e improve | ea to make m | ore value of the tool/service? | | | | | |
| | | | | | | | | | |
| Dim.C (Understandability/simplicity) | | | | | | | | Total | 4.0 |
| Ref# Qu | Ref# Question | | | | | | | Ans | wer (0-4) |
| \ | C1 The service structure and logic is easy and self-clear to understand and recognizable. | | | | | | | 4 | |
| | · · · | | | | | | | 4 | |
| | | | | , , | | | | | |
| | | | ient guidance | | | | | | 4 |
| C4 Th | ne responses | esponses to user actions are understandable. The look and feel is self explanatory and follows the | | | | | | | 4 |
| TR | REASURE sty | /le | | | | | | | |
| OF The | ne support to | business | processes / t | asks is clear. The user can unde | rstand his/her ro | ole and the purp | ose of the | | 4 |
| UO act | C5 actions required | | | | | | I | 7 | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear to | what is | | | | | |
|------------|--|-----------------|-------|--------------|-----|--|--|
| C6 | required for input. | Wildlis | | 4 | | | |
| C7 | The output of the service is clear and understandable. | | 4 | | | | |
| | What could be improved to make more value of the tool/service? | | | | | | |
| C8 | · | | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 4.0 | | |
| Ref# | Question | | | Answer (0-4) | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the state | us and starting | | 4 | | | |
| D2 | again. | | | T | | | |
| D3 | The mental workload when using the service is low. | | | 4 | | | |
| D4 | The service rewards the user also personally | | | 4 | | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | | |
| D: F (I | 196 | | T () | | | | |
| <u> </u> | rnability, memorability) | | Total | 4 (0.4) | 4.0 | | |
| Ref# | Question | | | Answer (0-4) | | | |
| E1 E2 | It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | | | 4 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | | |
| E4 | The service offers sufficient training support. | | | 4 | | | |
| | What could be improved to make more value of the tool/service? | | | <u>'</u> | | | |
| E5 | | | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 | | |
| Ref# | Question | <u> </u> | | Answer (0-4) | | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily | made | | 4 | | | |
| F3 | available for the service. | | | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | | |
| F9 | The service does not require high maintenance. | | | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | | |
| Dim G (Sui | I tability to network/collaborative environment) | | Total | | 4.0 | | |
| Ref# | Question | ' : | Total | Answer (0-4) | 4.0 | | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | | | |
| G3 | The service takes into account safety and security. | 4 | | | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | | | |
| Results | Assessment | | | | | | |
| Functional | Dimension | | | | | | |
| | | - : | | TSS Results | | | |
| TSS Succ | ess | | | | | | |
| TSS Parti | | | | | (| | |
| TSS Fail | | | | | 0 | | |
| | | <u> </u> | | | | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| | Test Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | | |
|---|--|----------------------------------|---------------------|--|--|--|--|
| | Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| г | Short Description Assess and export specific information about a car part disassembly time from the Disassemblability Dashboard | | | | | | |

Test Script

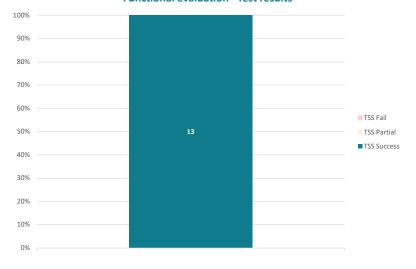
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

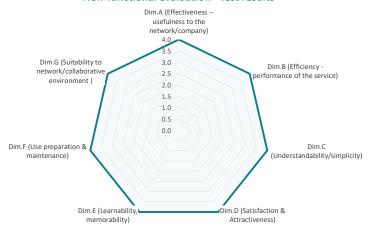
6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

| TSS _{success} | 13 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
|---|--|----------------|--|----------------------|-------------------|------------|---------------------|-------------|-----|
| Functionalities | | | Expected Results | | • | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | Circularity Web Platform shows to | ogin page | | YES | | | |
| Login to the Platform | | | User successfully logged in | | | YES | | | |
| User redirected to home | page | | Home page correctly opened | | | YES | | | |
| Search for "combimeter | ' car part | | List of relevant car parts shows u | р | | YES | | | |
| Select component to vis | ualize | | Modules selection page is shown | for the selected co | mponent | YES | | | |
| Click the "OPEN DIS" bu | tton in the "Disa | assemblability | Disassembly dashboard is shown | for the selected co | mponent | YES | | | |
| Navigate to the "Disasse | Navigate to the "Disassembly times (manual)" section. "Disassembly times (manual)" section is present a | | | | has an info | YES | | | |
| | | | button next to "Level 1" and "Leve | | | 120 | | | |
| Press the info button next to the "Level 2" metric | | | Disassembly time (level 2) page is correctly shown | | | YES | | | |
| Assess the parts table | | | Parts table correctly displays all t | | | YES | | | |
| Press the "Info" button n | ext to the "Diffic | culty level" | "Difficulty level calculation" popul | o is correctly shown | 1 | YES | | | |
| table header Assess the difficulty leve | l table | | The difficulty level table contains | the proper informat | tion | 7/20 | | | |
| | | | · ' | the proper informat | lion | YES | | | |
| Press the "Close" ("X") b | | | The difficulty level popup closes | " ylay" fort | | YES | | | |
| Press the "Export" butto | | | Data are exported successfully in | .xisx iormat | | YES | | | |
| Non-Functional Ev | | | | | | | | | |
| Dim.A (Effectiveness | usefulness to | the network/co | ompany) | | | | Total | | 4.0 |
| \ | Ref# Question | | | | | | Ar | nswer (0-4) | |
| | | | and benefit of the service to n tant / useful for the company/n | | | | | 4 | |
| - saving or increasin - saving tir A2 - decreasin - sharing in sharing in - attracting - boosting - supportir A3 - It is easy t | improving quality sharing information attracting customers boosting learning and innovation supporting networking with other organizations | | | | | | | 4 | |
| A4 | | | | | | | | | |
| Dim.B (Efficiency - per | formance of the | e service) | | | | | Total | | 4.0 |
| Ref # Question | | | | | | | | nswer (0-4) | |
| \ <u></u> | nd resources | required to a | chieve the objectives with the s | service are reason | nable/moderate. | | | 4 | |
| | e runs fast en | | , | | | | | 4 | |
| | | | y steps to achieve the result. | | | | † | 4 | |
| $\overline{}$ | | | company/ network. | | | | | 4 | |
| | | | ' ' | | | | | 4 | |
| What cou | What could be improved to make more value of the tool/service? | | | | | | | | |
| B6 | B6 | | | | | | | | |
| Dim.C (Understandabil | ity/simplicity) | | | | Total | | 4.0 | | |
| Ref # Question | | | | | | | | | |
| | | | y and self-clear to understand | | | 4 | | | |
| | , 0 | | | | | | | 4 | |
| | · · | | | | | | | 4 | |
| C4 The respo | | ctions are und | derstandable. The look and fee | l is self explanato | ry and follows th | е | | 4 | |
| C5 The suppo | | processes / t | asks is clear. The user can und | derstand his/her re | ole and the purp | ose of the | | 4 | |
| | • | | | | | | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | what is | | | | |
|------------|---|-------------------|-------|--------------|-----|--|
| C6 | required for input. | Wildelis | | 4 | | |
| C7 | The output of the service is clear and understandable. | | | 4 | | |
| -00 | What could be improved to make more value of the tool/service? | | | | | |
| C8 | | | | | | |
| Dim.D (Sat | tisfaction & Attractiveness) | | Total | | 4.0 | |
| Ref# | Question | | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta | itus and starting | | 4 | | |
| B0 | again. | | | | | |
| D3 | The mental workload when using the service is low. | | | 4 | | |
| D4 | The service rewards the user also personally | | 4 | | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| Dim F (Lea | Inrnability, memorability) | | Total | | 4.0 | |
| Ref# | Question | | Total | Answer (0-4) | 4.0 | |
| E1 | It is easy to start using the service and to perform the main tasks. | · | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | |
| E4 | The service offers sufficient training support. | | 4 | | | |
| E5 | What could be improved to make more value of the tool/service? | • | | | | |
| | | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 | |
| Ref# | Question | <u> </u> | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easil available for the service. | y made | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.G (Sui | Itability to network/collaborative environment) | | Total | | 4.0 | |
| Ref# | Question | | | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | | <u>_</u> | | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | | |
| G3 | The service takes into account safety and security. | 4 | | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | | |
| Results / | Assessment | | | | | |
| Functional | Dimension | | | | | |
| | | i | | TSS Results | | |
| TSS Succ | ess | | | | 13 | |
| TSS Parti | al | | | | 0 | |
| TSS Fail | | | | | 0 | |
| | | | | | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

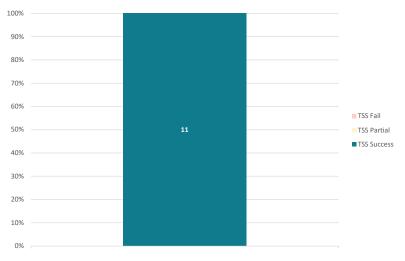
| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---|------------------------|---------------------|--|--|--|--|
| Actors involved | Matteo Rubes (POLLINI) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Visualize basic eco-design information about a car part in the Eco-Design Dashboard | | | | | | |

Test Script

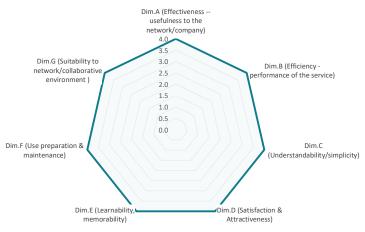
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. | | | | | | | | | |
|--|---|---|----------------------|--------------------|---------|---------------------|---------------|-----|--|--|
| | S _{success} 11 | TSS _{partial} | 0 | | | TSS _{fail} | | 0 | | |
| Functional | ities | Expected Results | | | Passed | Remarks | | | | |
| Access to t | he Circularity Web Platform | Circularity Web Platform shows lo | gin page | | YES | | | | | |
| Login to the | e Platform | User successfully logged in | | | YES | | | | | |
| User redire | cted to home page | Home page correctly opened | | | YES | | | | | |
| Search for | "combimeter" car part | List of relevant car parts shows up | p | | YES | | | | | |
| Select com | ponent to visualize | Modules selection page is shown | for the selected co | mponent | YES | | | | | |
| | DPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for | | • | İ | | | | | |
| Module" ca | | 200 doolgii daciiboara lo ollowii i | , the colocica con | .ponone | YES | | | | | |
| | ponent overall stats section | All relevant information for the de | sired section is dis | olaved | YES | | | | | |
| | p 5 metals" section | All relevant information for the de | | | YES | | | | | |
| | ption from the metals dropdown on the | All relevant information for the de | · | • | TES | | | | | |
| right of the | | All relevant information for the de | sired section updat | es accordingly | YES | | | | | |
| Hover the r | nouse over the info icon next to the "By | A tooltip explaining the sub-title m | | | | | | | | |
| thermodyna | amic rarity" sub-section title | | | | YES | | | | | |
| Assess the | "Plastic characterization" section | All relevant information for the pla displayed, the plastic characteriza | | | YES | | | | | |
| | | | | | | | | | | |
| Assess the | "Disassemblability metrics" section | The appropriate disassemblability | metrics are shown | 1 | YES | | | | | |
| Assess the | "Eco-Design recommendations" | The proper eco-design recomment with the metrics above | ndations are display | yed coherently | YES | | | | | |
| Assess the | "Semantic Social Network Analysis" | The SSNA tool description is clear | r and understanda | ble | YES | | | | | |
| section | | TI 00014 () () | | | TES | | | | | |
| Click the "C | Open documentation" button | The SSNA tool documentation op | ens in a new tab | | YES | | | | | |
| Click the "C | Open SSNA Tool" button | The SSNA tool opens in a new tal |) | | YES | | | | | |
| Non-Fun | ctional Evaluation | | | | | | | | | |
| Dim.A (Effe | ectiveness usefulness to the network/c | company) | | | | Total | | 4.0 | | |
| Ref# | Question | , | | | | 1 | Answer (0-4) | 4.0 | | |
| | | | | | | | | | | |
| A1 | It is easy to understand the objective | | | | . f | ļ | 4 | | | |
| | The outcome of the service is impor | rtant / userul for the company/ne | etwork. The servi | ce creates value | or my | | | | | |
| | company &network, for example by | | | | | | | | | |
| | - saving costs | | | | | | | | | |
| | - increasing income | | | | | | | | | |
| | - saving time, accelerating processes | 3 | | | | | | | | |
| A2 | decreasing risks | | | | | | 4 | | | |
| | - improving quality | | | | | | | | | |
| | - sharing information | | | | | | | | | |
| | - attracting customers | | | | | | | | | |
| | - boosting learning and innovation | | | | | | | | | |
| | - supporting networking with other or | ganizations | | | | | | | | |
| A3 | It is easy to achieve the planned bus | | asks with the serv | /ice. | | | 4 | | | |
| | What could be improved to make m | | | | | - | | | | |
| A4 | 1 | | | | | | | | | |
| Dim.B (Effi | ciency - performance of the service) | | | | | Total | | 4.0 | | |
| Ref# | Question | | | | | 1 | Answer (0-4) | | | |
| | <u> </u> | achieve the objectives with the | onico ora ras | nable/medarat- | | | | | | |
| B1 | The time and resources required to a | ichieve the objectives with the s | ervice are reasor | nable/moderate. | | | 4 | | | |
| B2 | The service runs fast enough. | | | | | ļ | 4 | | | |
| B3 | The service does not require too man | ny steps to achieve the result. | | | | | 4 | | | |
| B4 | All the functions are beneficial for my | / company/ network. | | | | | 4 | | | |
| B5 | The service structure allows flexible & | & fast performance of the tasks. | | | | | 4 | | | |
| What could be improved to make more value of the tool/service? | | | | | | | | | | |
| | | | | | | | | | | |
| _ | | | | | | Total | Anguar (0. 4) | 4.0 | | |
| Ref# | Question | | | | | Answer (0-4) | | | | |
| C1 | The service structure and logic is eas | | | | | | 4 | | | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | | | | 4 | | | |
| C3 | The service offers sufficient guidance | | | | | | 4 | | | |
| C4 | The responses to user actions are un | nderstandable. The look and fee | l is self explanato | ory and follows th | e | | 4 | | | |
| | TREASURE style. | | | | | | 7 | | | |
| | | | | | | | | | | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the pu | irnose of the | | | |
|-------------|--|-------------------|-------|--------------|-----|
| C5 | actions required. | arpose of the | | 4 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | r what is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | sfaction & Attractiveness) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the st again. | atus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | rnability, memorability) | | Total | | 4.0 |
| | Question It is easy to start using the service and to perform the main tasks. | | | Answer (0-4) | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 |
| Ref# | Question | · : | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ly made | | 4 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | |
| F5 | The service can be easily shared in the network. | | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | | 4 | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| Dim G (Suit | ability to network/collaborative environment) | | Total | | 4.0 |
| <u> </u> | Question | | 7000 | Answer (0-4) | 7.0 |
| | The service supports collaboration and interoperability for my network. | - | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | <u> </u> | | 4 | |
| G3 | The service takes into account safety and security. | | | 4 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| Results A | ssessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | 98S | | | TSS Results | |
| | | | | | |
| TSS Partia | | | | | 0 |
| TSS Partia | ı | | | | 0 |



| | ı |
|--|---------|
| Non-functional Dimension | |
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_U1_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform | | |
|--|---|---------------------|--|--|--|
| Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description Access and expert energies information about material composition for a gar part in the Eco Design Dechloard | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)
 Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| ISS _{success} 13 | ISS _{partial} 0 | | ISS _{fail} | 0 |
|---|---|--------|---------------------|---|
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | YES | | |
| Navigate to the "By weight" sub-section of the "Top 5 metals" section | "By weight" sub-section of the "Top 5 metals" section is present and has a "Details" button above the corresponding stacked bar chart | YES | | |
| Press the "Details" button above the corresponding stacked bar chart | "Metals by weight" page is correctly shown | YES | | |
| Select a filtering method from the dropdown menu next to "Show" | Metals table correctly displays all the relevant information accounting for the user selection | YES | | |
| Select a filtering method from the dropdown menu next to "Assess" | Metals table correctly displays all the relevant information accounting for the user selection | YES | | |
| Assess the "Metals by weight" table | Metals table correctly displays all the relevant information for the selected filtering methods | YES | | |
| Hover the mouse over the info icon next to the "Share over the total weight", "Supply risk" and "SMI" table column titles | A tooltip explaining the table column title meaning appears | YES | | |
| Press the "Export" button | Data are exported successfully in ".xlsx" format, following the applied filters | YES | | |

Non-Functional Evaluation

| Dim.A (Effe | ctiveness usefulness to the network/company) | | Total | 4.0 |
|-------------|---|--------|----------|---------|
| Ref# | Question | | Answe | r (0-4) |
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | | 4 | ļ |
| | The outcome of the service is important / useful for the company/network. The service creates value company &network, for example by | for my | | |
| | - saving costs | | | |
| | - increasing income | | | |
| | - saving time, accelerating processes | | | |
| A2 | - decreasing risks | | 4 | Į. |
| | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | <u> </u> | |

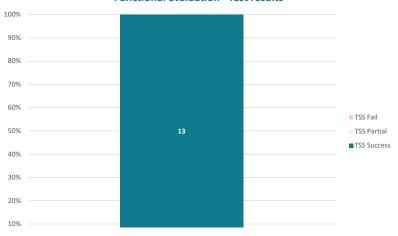
It is easy to achieve the planned business objectives / perform the tasks with the service.

The concepts are understandable for my organization and in line with TREASURE terminology

| A4 | What could be improved to make more value of the tool/service? | | |
|-------------|---|-------|----------|
| | | | |
| Dim.B (Effi | ciency - performance of the service) | Total | 4.0 |
| Ref# | Question | Answe | er (0-4) |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 4 |
| B2 | The service runs fast enough. | • | 4 |
| В3 | The service does not require too many steps to achieve the result. | • | 4 |
| B4 | All the functions are beneficial for my company/ network. | • | 4 |
| B5 | The service structure allows flexible & fast performance of the tasks. | • | 4 |
| В6 | What could be improved to make more value of the tool/service? | | |
| ВО | | | |
| Dim.C (Un | derstandability/simplicity) | Total | 4.0 |
| Ref# | Question | Answe | er (0-4) |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | 4 |

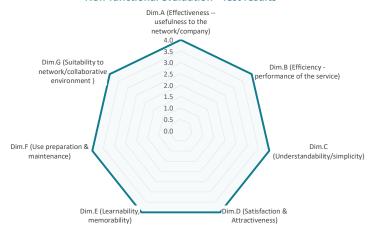
| 00 | The continue offers sufficient suidence | | | 4 | |
|--|---|-------------------|-------|---|-----|
| C3 | The service offers sufficient guidance The responses to user actions are understandable. The look and feel is self explanatory and follows | the | | | |
| C4 | TREASURE style. | | | 4 | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the pu actions required. | irpose of the | | 4 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | what is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| | isfaction & Attractiveness) | 1 | Total | | 4.0 |
| Ref# | Question | | Total | Answer (0-4) | 4.0 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | · | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta | atus and starting | | 4 | |
| D0 | again. | | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| im F (I ea | I rnability, memorability) | | Total | | 4.0 |
| ef# | Question | <u> </u> | Total | Answer (0-4) | 4.0 |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| | What could be improved to make more value of the tool/service? | <u> </u> | | · | |
| | | | | | |
| E5 | | | | | |
| | preparation & maintenance) | | Total | | 4.0 |
| im.F (Use | preparation & maintenance) [Question | | Total | Answer (0-4) | 4.0 |
| im.F (Use | | | Total | Answer (0-4) 4 | 4.0 |
| im.F (Use | Question | | Total | | 4.0 |
| ef# F1 | Question The take-up of the service does not require high preparation. | ly made | Total | 4 | 4.0 |
| im.F (Use ef # F1 F2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi | ly made | Total | 4 4 | 4.0 |
| F1 F2 F3 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ly made | Total | 4 4 4 | 4.0 |
| F1 F2 F3 F4 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. | ly made | Total | 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | ly made | Total | 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | ly made | Total | 4 4 4 4 4 4 | 4.0 |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 | IQuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | ly made | Total | 4 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 F8 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | ly made | Total | 4 4 4 4 4 4 4 4 | 4.0 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | ly made | | 4 4 4 4 4 4 4 4 | |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Sui | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | ly made | Total | 4 4 4 4 4 4 4 4 | 4.0 |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Sui ef # | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question | ly made | | 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F10 im.G (Suief # G1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | ly made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | ly made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite # G1 G2 G3 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 im.G (Sui ef # G1 G2 G3 G4 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | ly made | | 4 4 4 4 4 4 4 4 4 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 Results / Results | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of # G1 G2 G3 G4 Results / Resul | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 Results / Results | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 G2 G3 G4 Results A Gunctional | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 Results A cunctional | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | ly made | | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | |





| 207 | | | |
|-----|--|--|--|
| | | | |

| Non-functional Dimension | | |
|--|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 4.0 | |
| Dim.C (Understandability/simplicity) | 4.0 | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 4.0 | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | |
| | Total | |
| | 4.0 | |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|---|-------------------|--|---------------------|--|--|--|
| | Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| п | Chart Danssintian | Visually besiden the six of the s | | | | |

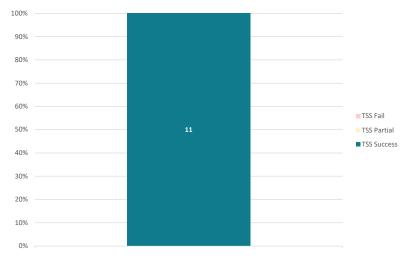
Short Description Visualize basic recycling information about a car part in the Recyclability

Test Script

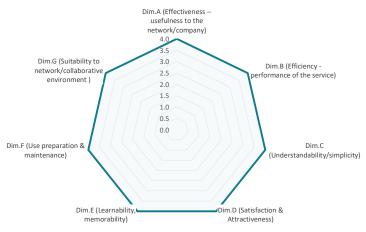
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | that every information expected is corr | | d card and is disp | layed in the appr | opriate format | | | |
|---|--|---|-----------------------|-----------------------|----------------|---------------------|--------------|-----|
| TS | S _{success} 11 | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
| Functional | lities | Expected Results | | | Passed | Remarks | | |
| Access to t | the Circularity Web Platform | Circularity Web Platform shows | login page | | YES | | | |
| Login to the | e Platform | User successfully logged in | | | YES | | | |
| User redire | ected to home page | Home page correctly opened | | | YES | | | |
| Search for | "combimeter" car part | List of relevant car parts shows | up | | YES | | | |
| Select com | ponent to visualize | Modules selection page is show | n for the selected o | omponent | YES | | | |
| Click the "C | OPEN REC" button in the "Disassemblability | Recyclability dashboard is show | n for the selected of | omponent | \/F0 | | | |
| Module" ca | flodule" card | | YES | | | | | |
| Assess con | Assess component overall stats section All relevant information for the desired section is displayed | | YES | | | | | |
| Assess "Op | otimization objective of recycling" section | All relevant recycling optimization | on objectives is disp | olayed | \/F0 | | | |
| | | | | | YES | | | |
| Assess "Ge | eneral composition build-up" pie chart | All relevant information for the d | lesired section is di | splayed | YES | | | |
| section | | | | | 123 | | | |
| Assess "Re | ecycling rates" section | All relevant information for the d | lesired section is di | splayed with | YES | | | |
| | | respect to the current recyclabil | lity level | | ILS | | | |
| | fferent recycling level using the dropdown | The recycling rates and process | sing routes change | accordingly | YES | | | |
| | e top of the section | | | | 123 | | | |
| Assess the | "Individual recycling rates" sub-section | All relevant information for the d | | | YES | | | |
| | | respect to the current recyclabil | lity level and proce | ssing route | 120 | | | |
| | fferent processing route using the | The individual recycling rates flo | ower chart updates | accordingly | YES | | | |
| | menu next to the "Details" button. | | | | 123 | | | |
| Assess "Fe | edback for recyclers" section | All relevant information for the d | lesired section is di | splayed | YES | | | |
| | | | | | | | | |
| Press the ". | Add feedback" button | The add feedback popup appea | rs | | YES | | | |
| | 5 11 14 4 4 4 4 4 1 1 1 1 1 1 1 | T. C. H. L | 1: 1 11 5 11 | | | | | |
| feedback" | e feedback text, then press the "Add | The feedback is correctly inserte | ed into the reedbac | ks table | YES | | | |
| | nctional Evaluation | | | | | | | |
| | | | | | | Tatal | | 1.0 |
| <u> </u> | ectiveness usefulness to the network/c | ompany) | | | | Total | | 4.0 |
| Ref# | Question | | | | | <u> </u> | Answer (0-4) | |
| A1 | It is easy to understand the objective | | | | | | 4 | |
| | The outcome of the service is impor- | tant / useful for the company/ | network. The ser | vice creates valu | e for my | | | |
| | company &network, for example by | | | | | | | |
| | - saving costs | | | | | | | |
| | increasing income | | | | | | | |
| | - saving time, accelerating processes | | | | | | | |
| A2 | - decreasing risks | | | | | | 4 | |
| | improving quality | | | | | | | |
| | - sharing information | | | | | | | |
| | - attracting customers | | | | | | | |
| | boosting learning and innovation | | | | | | | |
| | - supporting networking with other organization | ganizations | | | | | | |
| A3 | It is easy to achieve the planned busi | ness objectives / perform the | tasks with the se | rvice. | | | 4 | |
| A4 | What could be improved to make m | ore value of the tool/service | ? | | | | | |
| A4 | | | | | | | | |
| Dim.B (Eff | iciency - performance of the service) | | | | | Total | | 4.0 |
| Ref# | Question | | | | | | Answer (0-4) | |
| B1 | The time and resources required to a | chieve the objectives with the | service are reco | onable/moderate | | | 4 | |
| | - | orneve the objectives with the | SOLVICE ALC 1645 | J. IADIO/ITIOUEI Ale. | | | 4 | |
| B2 | The service runs fast enough. | ((1) 0 " | | | | | | |
| B3 The service does not require too many steps to achieve the result. | | | | | | 4 | | |
| | B4 All the functions are beneficial for my company/ network. | | | | | 4 | | |
| B5 | The service structure allows flexible 8 | fast performance of the task | S. | | | | 4 | |
| В6 | What could be improved to make m | ore value of the tool/service | ? | | | | | |
| B0 | | | | | | | | |
| Dim.C (Un | derstandability/simplicity) | | | | | Total | | 4.0 |
| Ref# | Question | | | | | ! | Answer (0-4) | |
| C1 | The service structure and logic is eas | y and self-clear to understand | and recognizable | | | | 4 | |
| | The concepts are understandable for | | | | | | 4 | |
| C2 | <u>'</u> | , , | IIII IKEASUKE 16 | rminology | | | | |
| C3 | The service offers sufficient guidance | | 1: 16 : | 16.0 | | | 4 | |
| | I I no reconnece to user actions are und | sponses to user actions are understandable. The look and feel is self explanatory and follows | | | 16 | I | | |
| C4 | TREASURE etyle | acrotaridable. The look and re | or to don explana | ory and ronowo a | | | 4 | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the pr | irnose of the | | | |
|-------------|--|-------------------|-------------------|--------------|-----|
| C5 | actions required. | irpose of the | | 4 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clea required for input. | what is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | sfaction & Attractiveness) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the st again. | atus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | rnability, memorability) | | Total | | 4.0 |
| | Question It is easy to start using the service and to perform the main tasks. | | Answer (0-4) 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 |
| Ref# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ly made | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| Dim.G (Suit | Lability to network/collaborative environment) | | Total | | 4.0 |
| Ref# | Question | · . | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | | |
| G3 | The service takes into account safety and security. | | 4 | | |
| G4 | | | | 4 | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | ess | | | TSS Results | 11 |
| TSS Partia | | | | | 0 |
| | | | | | |
| TSS Fail | | 1 | | | 0 |



| | ı | |
|--|---------|--|
| Non-functional Dimension | | |
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | |
| Dim.B (Efficiency - performance of the service) | 4.0 | |
| Dim.C (Understandability/simplicity) | 4.0 | |
| Dim.D (Satisfaction & Attractiveness) | 4.0 | |
| Dim.E (Learnability, memorability) | 4.0 | |
| Dim.F (Use preparation & maintenance) | 4.0 | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | |
| | Total | |
| | 4.0 | |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|--|---------------------|--|--|--|
| Actors involved | Matteo Rubes (POLLINI) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Chart Description | Chart Description Assess an afficient phont individual years line vates for a new year in the Description of | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.
- 6. Click the "Details" button net to the recycling routes dropdown menu.

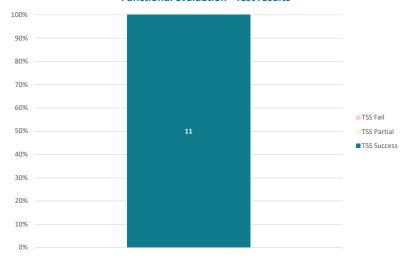
The output of the service is clear and understandable.

What could be improved to make more value of the tool/service?

| | that all the recycling rates for the sele | | | | TSS _{fail} | | 0 |
|--|---|--|--|---------------|---------------------|--------------|-----|
| unctional | S _{success} 11 | TSS _{partial} | 0 | D 1 | Remarks | | 0 |
| | the Circularity Web Platform | Expected Results Circularity Web Platform shows log | vin nage | Passed YES | Remarks | | |
| | e Platform | User successfully logged in | giri page | YES | + | | |
| | | | | | | | |
| | "combimeter" car part | Home page correctly opened List of relevant car parts shows up | | YES | | | |
| | <u> </u> | | or the selected component | YES YES | + | | |
| elect component to visualize Modules selection page is shown for the selected component lick the "OPEN REC" button in the "Recyclability Recyclability dashboard is shown for the selected component | | | YES | + | | | |
| lavigate to the "Individual recycling rates" sub- "Individual recycling rates" sub-section of the "Recycling rates" | | | | 153 | | | |
| | the "Recycling rates" section | section is present and has a "Detai | | YES | | | |
| | , , | routes dropdown menu | , , | | | | |
| | Details" button next to the recycling routes | "Individual recycling rates" page is | correctly shown | YES | | | |
| opdown r | menu | | | TES | | | |
| | cyclability level from the top-right | Recycling rates table correctly dis | plays all the relevant information | YES | | | |
| opdown r | | accounting for the user selection | | ILO | | | |
| | cycling route from the second dropdown | Recycling rates table correctly dis | plays all the relevant information | YES | | | |
| enu on th | | accounting for the user selection | | | | | |
| sess the | "Rates by recycling route" table | | plays all the relevant information for | YES | | | |
| | | the selected recyclability level and | recycling route | | | | |
| | nctional Evaluation | | | | | | |
| | ectiveness usefulness to the network/ | company) | | | Total | | 4.0 |
| f # | Question | | | | <u> </u> | Answer (0-4) | |
| A1 | It is easy to understand the objective | | | | | 4 | |
| | The outcome of the service is impo | rtant / useful for the company/ne | twork. The service creates value | for my | | | |
| | company &network, for example by | | | | | | |
| | - saving costs | | | | | | |
| | increasing income | | | | | | |
| | - saving time, accelerating processes | 3 | | | | | |
| A2 | - decreasing risks | | | | | 4 | |
| | - improving quality | | | | | | |
| | - sharing information | | | | | | |
| | - attracting customers | | | | | | |
| | - boosting learning and innovation | | | | | | |
| | - supporting networking with other or | rganizations | | | | | |
| А3 | It is easy to achieve the planned bus | | sks with the service | | | 4 | |
| | What could be improved to make n | | | | | | |
| A4 | Triat could be improved to make it | Total value of the tool/sel vice. | | | | | |
| m.B.(Effi | iciency - performance of the service) | | | | Total | | 4.0 |
| f# | Question | | | | Total | Answer (0-4) | 4.0 |
| | · | shipus the shipetives with the ex | miles are receptable/medarate | | | 4 | |
| B1 | The time and resources required to a | ichieve the objectives with the se | ervice are reasonable/moderate. | | | | |
| B2 | The service runs fast enough. | | | | | 4 | |
| В3 | The service does not require too man | | | | | 4 | |
| B4 | All the functions are beneficial for my | | | | 4 | | |
| B5 | The service structure allows flexible | | | | | 4 | |
| В6 | What could be improved to make n | nore value of the tool/service? | | | | | |
| ьо | | | | | | | |
| m.C (Und | derstandability/simplicity) | | | | Total | | 4.0 |
| f # | | | | | 1 | Answer (0-4) | |
| C1 | | structure and logic is easy and self-clear to understand and recognizable. | | | | 4 | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | | | 4 | |
| C3 | The service offers sufficient guidance | | | | † | 4 | |
| | The responses to user actions are ur | | is self explanatory and follows th | P | | | |
| C4 | TREASURE style. | | con explanatory and follows th | - | | 4 | |
| | The support to business processes / | tasks is clear. The user can unde | erstand his/her role and the purp | ose of the | | | |
| C5 | actions required. | asks is clear. The user call under | statia marrier role and the purp | 000 01 1110 | | 4 | |
| | The service is simple enough for pra | ctical use. The tasks do not look | complex to perform. It is clear w | hat is | | | |
| C6 | required for input. | casa. acc. The tacks do not look | complex to portorni. It is clear w | | | 4 | |
| | | a for input. | | | ļ | | |

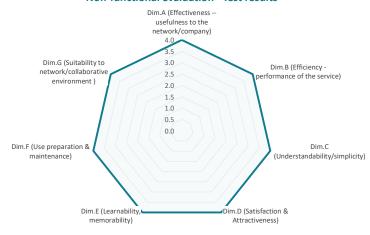
4

| -00 | | | | | |
|------------|---|---------------------|--------------|--------------|-----|
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 4.0 |
| Ref# | Question | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the | status and starting | | 4 | |
| DZ | again. | | | 4 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | rnability, memorability) | | Total | | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | 4 | | | | |
| | | | | | |
| | preparation & maintenance) | | Total | | 4.0 |
| Ref# | Question | - | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be ear available for the service. | asily made | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | · | |
| F10 | p | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | | Total | | 4.0 |
| Ref# | Question | i | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | |
| G3 | The service takes into account safety and security. | 4 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| | | i | | TSS Results | |
| TSS Succ | ess | | | | 11 |
| TSS Partia | | | | | 0 |
| TSS Fail | | | | | 0 |
| , | | | | | 5 |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |

| Dim.C (Understandability/simplicity) | 4.0 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case References

| Test Case ID | CWP_DIS_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|---|---------------------|--|--|--|
| Actors involved | Nuria Fernández (SEAT) (Technical Conformity-Product Environmental Affaires) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description | Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard | | | | |

Test Script

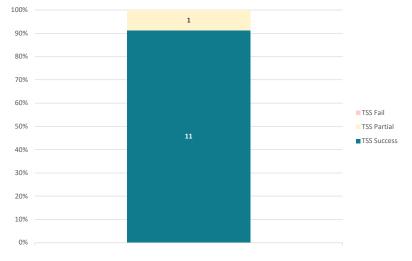
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.

The output of the service is clear and understandable.

- 5. Click the "Dis advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format

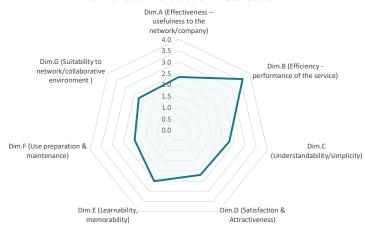
| 6. Assess | that every infor | mation ex | pected is cor | rectly reported in its dedicated | card and is displ | ayed in the appr | opriate format | <u> </u> | | |
|---------------|--|--------------|-----------------|--|----------------------|---------------------|----------------|---|-------------------------------------|---------------------------------------|
| TSS | S _{success} | 11 | | TSS _{partial} | 1 | | | TSS _{fail} | 0 | |
| Functionali | ities | | | Expected Results | | | Passed | Remarks | | |
| Access to the | he Circularity We | b Platform | | Circularity Web Platform shows lo | gin page | | YES | | | |
| Login to the | | | | User successfully logged in | | | YES | | • | |
| User redire | cted to home pag | ge | | Home page correctly opened | | | YES | | | |
| Search for ' | "combimeter" ca | part | | List of relevant car parts shows up YES | | | | | | |
| | ponent to visualiz | | | Modules selection page is shown | | | YES | | | |
| | OPEN DIS" buttor | in the "Dis | assemblability | Disassembly dashboard is shown | for the selected co | omponent | YES | | | |
| Module" car | | | | | | | | | | |
| | Click the "Dis advisory" link on the top navbar. Assess "Electrical and electronic equipment" sub | | | Disassembly advisor dashboard of | | | YES | | | |
| | | | | All relevant information for the de | sired sub-section i | s displayed | YES | | | |
| | he "Metals to be and cost metric | | | All relevant information for the | aired aub sesties: | o diaplayed | | | | |
| Assess time | anu cost metric | s below the | metais tablé | All relevant information for the de | an eu sub-sectión i | s uispiayeu | YES | | | |
| Adjust the " | 'Disassembly cos | t ner hour" | value | The "Estimated disassembly cost" | ' metric is adjusted | accordingly | 1 | | | |
| rajust trie | 2.3d33Gillbly COS | . por noul | ·aiuo | Louinated disassembly Cost | oti io io aujusteu | . accordingly | YES | | | |
| Assess "The | ermodynamic rar | ity VS Reve | enue" sub | All relevant information for the de | sired sub-section i | s displayed | 1 | | | |
| | he "Metals to be | | | | | | YES | | | |
| | 'Thermodynamic | | | The lower limits for the "Thermod | ynamic rarity indic | ator" and | l | | p. 9. 1 | |
| | for revenue" me | | | "Revenue" metrics are adjusted a | | | PARTIAL | It is not possible to introduce more that | an one digit when you want to intro | oduce a value |
| Hover with | the mouse over a | metal in th | ne chart | A tooltip with specific metrics abo | out the selected me | etal is shown | YES | | | |
| | ctional Evalu | | | | | | | • | | |
| | ectiveness use | | the network/c | ompany) | | | | Total | 2.3 | |
| Ref# | Question | | | . " | | | - | | nswer (0-4) | |
| A1 | | derstand | the objective | and benefit of the service to m | ny organization/n | etwork | | | 3 | |
| H A I | | | | tant / useful for the company/n | | | e for my | | | |
| 1 | company ≠ | | | tant / userur for the company/in | etwork. The serv | ice creates valu | e ioi iiiy | | | |
| 1 | - saving costs | LWOIK, IOI | evaluble by | | | | | | | |
| 1 | - saving costs - increasing in | come | | | | | | | | |
| 1 | | | ing processes | | | | | | | |
| A2 | saving time, decreasing r | | ing processes | | | | | | 2 | |
| AZ AZ | | | | | | | | | ۷ | |
| | improving qusharing infor | | | | | | | | | |
| | | | | | | | | | | |
| 1 | - attracting cu | | innoveti | | | | | | | |
| | - boosting lear | | | annizations | | | | | | |
| A3 | | | with other or | ganizations iness objectives / perform the ta | acke with the cor | vice | | | 2 | |
| HAS H | | | | nore value of the tool/service? | | vice. | | L | | |
| A4 | wriat could b | e illihi ovi | eu to make m | iore value or the toor/service? | | form more intell | ive and sim-!- | to upo | | |
| Dim D /Fff | | | | | iviake the plati | form more intuit | ive and simple | | | |
| | ciency - perforn | nance of th | ne service) | | | | | Total | 3.6 | |
| Ref# | Question | | | | | | | A | nswer (0-4) | |
| B1 | | | | chieve the objectives with the s | service are reaso | nable/moderate. | | | 3 | |
| B2 | The service ru | ıns fast er | nough. | | | | | | 4 | |
| В3 | The service d | oes not re | quire too mar | y steps to achieve the result. | | | | | 4 | |
| B4 | All the functio | ns are ber | neficial for my | company/ network. | | | | | 4 | |
| B5 | | | | R fast performance of the tasks. | | | | | 3 | |
| | | | | ore value of the tool/service? | | | | | | |
| В6 | | , | | | | | | | | |
| Dim.C. (Unc | derstandability/s | implicity) | | | | | | Total | 2.3 | |
| Ref# | Question | piioity) | | | | | | | nswer (0-4) | |
| D | | | ad logic is s | u and salf along to the large | and roos == == I | | | ^ | | |
| C1 | • | | | sy and self-clear to understand | | | | | 2 | |
| C2 | | | | my organization and in line wit | h TREASURE ter | minology | | | 2 | |
| C3 | The service of | | | | | | | | 2 | |
| C4 | | | actions are un | derstandable. The look and fee | l is self explanato | ory and follows the | he | | 2 | |
| | TREASURE st | | | | | | | | | |
| C5 | | | processes / | tasks is clear. The user can und | lerstand his/her | ole and the purp | oose of the | | 2 | · · · · · · · · · · · · · · · · · · · |
| | actions requir | | | | | | | | | |
| C6 | 1 | | nough for prac | ctical use. The tasks do not look | complex to perf | form. It is clear w | hat is | | 3 | |
| | required for in | | | | | | | | | |
| C7 | The output of | the convic | o ic cloor and | undoretendeble | | | | | 2 | |

| | What could be improved to make more value of the tool/service? | | | | |
|------------|--|-------------------|-----------------------------------|-----------------|-----|
| C8 | I think the terminology used is too academic for the recycle | rs/dismantlers, | even for the developpers of a p | part. | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 2.2 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. | s and starting | | 2 | |
| D3 | The mental workload when using the service is low. | | | 2 | |
| D4 | The service rewards the user also personally | | | 2 | |
| D5 | I could recommend the service for other people/organizations. | | | 2 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| Do | This section is difficult to evaluate with only a part. Also I haven't fo | und how to sav | e information or create person | al searches | |
| Dim.E (Lea | rnability, memorability) | | Total | | 2.5 |
| Ref# E1 | Question It is easy to start using the service and to perform the main tasks. | | | Answer (0-4) | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 2 | |
| E4 | The service offers sufficient training support. | | | 2 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| ES | It is esay to start the use of the plattform, but I can't find how to work v | ith it, other tha | n visualizing data. There is no o | contextual help | |
| Dim.F (Use | preparation & maintenance) | | Total | | 2.0 |
| Ref# | Question The take-up of the service does not require high preparation. | | | Answer (0-4) | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 2 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | | 3 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 2 | |
| F5 | The service can be easily shared in the network. | | | 2 | |
| F6 | The service does not require specific knowledge from the users. | | | 1 | |
| F7 | The service is easy to take up also for SMEs. | | | 2 | |
| F8 | The service does not require extensive change of business processes. | | | 2 | |
| F9 | The service does not require high maintenance. | | | 2 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | I have valorated with 2 most of these questions, because I | don't have kn | owledge enough to valorate the | em | |
| • | tability to network/collaborative environment) | | Total | | 2.3 |
| Ref# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 3 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | |
| G3 | The service takes into account safety and security. | | | 2 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 1 | |
| | Assessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | ess | | | TSS Results | |
| TSS Partia | al | | | | |
| TSS Fail | | | | | |



| -1 | Non-functional Dimension | |
|----|---|---------|
| | | Results |
| | Dim.A (Effectiveness usefulness to the network/company) | 2.3 |

| Dim.B (Efficiency - performance of the service) | 3.6 |
|---|-------|
| Dim.C (Understandability/simplicity) | 2.3 |
| Dim.D (Satisfaction & Attractiveness) | 2.2 |
| Dim.E (Learnability, memorability) | 2.5 |
| Dim.F (Use preparation & maintenance) | 2.0 |
| Dim.G (Suitability to network/collaborative environment) | 2.3 |
| | Total |
| | 2.5 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---|-------------------|--|---------------------|--|--|--|--|
| | Actors involved | Nuria Fernández (SEAT) (Technical Conformity-Product Environmental Affaires) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| 1 | Short Description | | | | | | |

0

TSS_{fail}

0

Test Script

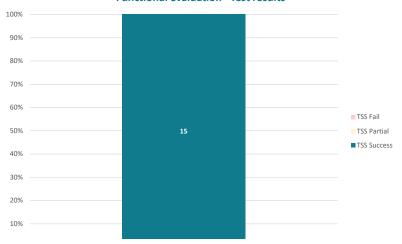
TSS_{suc}

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Click the "Rec advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format. TSS_{partial}

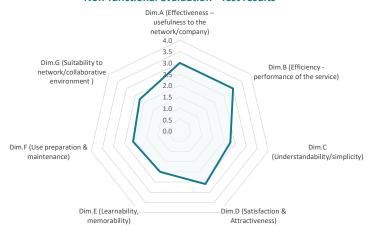
| Functionalities | | Expected Results | Passed | Remarks | |
|---|--|---|-------------------|----------------|-----------|
| Access to the Circularity Web Platform | | Circularity Web Platform shows login page | YES | | |
| Login to the | Platform | User successfully logged in | YES | | |
| User redired | cted to home page | Home page correctly opened | YES | | |
| Search for " | combimeter" car part | List of relevant car parts shows up | YES | | |
| Select comp | ponent to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN REC" button in the "Recyclability | | Recyclability dashboard is shown for the selected component | YES | | |
| Click the "Rec advisory" link on the top navbar. | | Recyclability advisor dashboard correctly opened | YES | | |
| Assess the i | recycling route table in the "Determine | All relevant information for the desired table is displayed | | | |
| | pination of disassembly path and recycling | | YES | | |
| | mplement (from component to material)" | | 1 123 | | |
| section | | TI | ļ | | |
| Press the in route | fo button at the right of one recycling | The "DIS & REC route X" popup appears | YES | | |
| Assess the I | materials in the "DIS & REC route X" table | All relevant information for the desired table is displayed | YES | | |
| Assess the I | revenue indicator | All relevant information for the desired section is displayed | YES | | |
| Adjust the " | Total cost" value | The "Profit" indicator updates accordingly | YES | | |
| Press the "C | Close" ("X") button | The "DIS & REC route X" popup closes | YES | | |
| | "Graphical integration approach" sub- | All relevant information for the desired section is displayed | YES | | |
| | the mouse over a recycling route in the | A tooltip with specific metrics about the selected recycling route is | YES | | |
| chart | | shown | IES | | |
| | ctional Evaluation | | | | |
| Dim.A (Effe | ectiveness usefulness to the network/c | ompany) | | Total | 3.0 |
| Ref# | Question | | | Answ | ver (0-4) |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | 3 |
| | The outcome of the service is impor- | tant / useful for the company/network. The service creates value | e for my | | |
| | company &network, for example by | | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks | | | | 3 |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| - 40 | - supporting networking with other org | | | | 3 |
| A3 | | ness objectives / perform the tasks with the service. | | | 3 |
| A4 | What could be improved to make m | | ul for the field | a of the table | |
| D: D /Fff: | <u> </u> | Some explanatory help would be usef | ul for the field: | | |
| | ciency - performance of the service) | | | Total | 3.0 |
| | Question | | | Answ | ver (0-4) |
| B1 | | chieve the objectives with the service are reasonable/moderate. | | | 3 |
| B2 | The service runs fast enough. | | | | 3 |
| B3 | The service does not require too man | , | | | 3 |
| B4 | All the functions are beneficial for my | 1 7 | | | 3 |
| B5 | The service structure allows flexible 8 | | | | 3 |
| В6 | What could be improved to make m | | | | |
| | | It's dificul to evaluate thge perforn | nance with onl | ' | |
| | lerstandability/simplicity) | | | Total | 2.3 |
| Ref# | Question | | | Answ | ver (0-4) |
| C1 | | y and self-clear to understand and recognizable. | | | 3 |
| C2 | | my organization and in line with TREASURE terminology | | | 2 |
| C3 | The service offers sufficient guidance | | | | 1 |
| | | | | | |

| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | | 3 | |
|--|--|----------------------|---------------------------|--|---------------------------|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of actions required. | the | | 2 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | | | 2 | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| -00 | What could be improved to make more value of the tool/service? | • | | | |
| C8 | e concepts need further explanation (help button on the concepts) The section "optimization objecive of rec | cling" doesn't seer | n to work. I don' receive | any feedback wh | nen I choose diferent opt |
| Dim.D (Sat | isfaction & Attractiveness) | | otal | Í | 2.6 |
| Ref# | Question The service is attractive to the user. I feel satisfied and comfortable when using the service. | | A | nswer (0-4) | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and again. | starting | | 2 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D3 | The service rewards the user also personally | | | 3 | |
| | · · · | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | The concepts and terminology are not clear enough. I dont find how to | | | done | |
| Dim.E (Lea | rnability, memorability) | 1 | otal | | 2.0 |
| Ref# | Question | L | A | nswer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to learn new features/ functionalities. | | | 2 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 2 | |
| E4 | The service offers sufficient training support. | | | 1 | |
| | What could be improved to make more value of the tool/service? | • | | | |
| E5 | The concepts and terminology are not clear enough. I dont find how to | save the information | n or the seaches I have | done | |
| D: E (II | | | | | |
| | nrenaration & maintenance) | 1 | otal | | 2.1 |
| | preparation & maintenance) | <u>.</u> | otal | newer (0.4) | 2.1 |
| Ref# | Question | | | nswer (0-4) | 2.1 |
| Ref# F1 | Question The take-up of the service does not require high preparation. | | | 2 | 2.1 |
| Ref# | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | | | | 2.1 |
| Ref# F1 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | 1 | | 2 2 | 2.1 |
| F1 F2 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made | | | 2 | 2.1 |
| F1 F2 F3 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | 1 | | 2 2 | 2.1 |
| F1 F2 F3 F4 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. | 1 | | 2 2 2 2 | 2.1 |
| F1 F2 F3 F4 F5 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | 1 | | 2 2 2 2 2 2 | 2.1 |
| F1 F2 F3 F4 F5 F6 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | | | 2 2 2 2 2 2 3 | 2.1 |
| F1 F2 F3 F4 F5 F6 F7 F8 | Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | 1 | | 2 2 2 2 3 2 2 | 2.1 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 | Cuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | | 2 2 2 2 2 2 3 2 2 2 | 2.1 |
| F1 F2 F3 F4 F5 F6 F7 F8 | Cuestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | A | 2 2 2 2 2 2 3 2 2 2 | 2.1 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't | have knowledge el | nough to valorate them | 2 2 2 2 2 2 3 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment) | have knowledge el | nough to valorate them | 2 2 2 2 3 3 2 2 2 2 | 2.1 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of # 10 F1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment) | have knowledge el | nough to valorate them | 2 2 2 2 2 2 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite # G1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't ability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | have knowledge el | nough to valorate them | 2 2 2 2 2 2 3 2 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suite of F) G2 G2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. | have knowledge el | nough to valorate them | 2 2 2 2 2 3 3 2 2 2 2 2 3 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite # G1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't ability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | have knowledge el | nough to valorate them | 2 2 2 2 2 2 3 2 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | have knowledge el | nough to valorate them | 2 2 2 2 2 3 3 2 2 2 2 2 3 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suitef # G1 G2 G3 G4 Results / Results | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | have knowledge el | nough to valorate them | 2 2 2 2 2 3 2 2 2 2 2 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suitef # G1 G2 G3 G4 Results / Results | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | have knowledge el | nough to valorate them | 2 2 2 2 2 3 2 2 2 2 2 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of Suite of S | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | have knowledge el | nough to valorate them | 2 2 2 2 2 3 2 2 2 2 2 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of the content of the | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | have knowledge el | nough to valorate them | 2 2 2 2 2 3 3 2 2 2 2 2 2 3 3 2 2 2 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Cim.G (Sui Ref # G1 G2 G3 G4 Results A | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I have valorated with 2 most of these questions, because I don't tability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | have knowledge el | nough to valorate them | 2 2 2 2 2 3 3 2 2 2 2 2 2 3 3 2 2 2 2 2 | |





| Non-functional Dimension | | | |
|--|---------|--|--|
| | Results | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | |
| Dim.B (Efficiency - performance of the service) | 3.0 | | |
| Dim.C (Understandability/simplicity) | 2.3 | | |
| Dim.D (Satisfaction & Attractiveness) | 2.6 | | |
| Dim.E (Learnability, memorability) | 2.0 | | |
| Dim.F (Use preparation & maintenance) | 2.1 | | |
| Dim.G (Suitability to network/collaborative environment) | 2.3 | | |
| | Total | | |
| | 2.5 | | |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---|-------------------|--|---------------------|---|--|--|--|
| | Actors involved | Nuria Fernandez (SEAT) (Technical Conformity-Product Environmental Affaires) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| ı | Short Description | n Visualize advisory information about a car part in the Eco-Design Advisory Dashboard | | | | | |

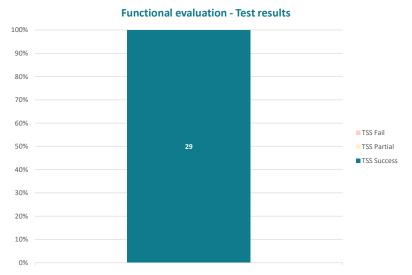
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Click the "Eco advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | ectly reported in its dedicated card and is displayed in the appro | рпате юппат | | |
|---|--|-------------|---------------------|-----------|
| TSS _{success} 29 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | 120 | | |
| Module" card | Eco-design dashboard is shown for the selected component | YES | | |
| | <u></u> | | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | | | |
| disassembly and recycling" table in the "Step 1: | section | YES | | |
| Preliminary analysis of the reference design" sub- | | 120 | | |
| section of the "Reference Design" section | | | | |
| Assess the "Eco-design feedback" table in the "Step 1: | All the relevant feedback is properly displayed for the desired sub- | | | |
| Preliminary analysis of the reference design" sub- | section | VEC | | |
| section of the "Reference Design" section | | YES | | |
| | | | | |
| Click the "Generate Guidelines" button in the "Step 2: | "Generate guidelines" popup is shown | | | |
| Generation of specific eco-design guidelines and | and the state of t | YES | | |
| prioritization" sub-section | | | | |
| Hover the mouse over the info icon next to the | A tooltip with the guideline name appears | | | |
| guideline ID | A toolog man are galacimo namo appeare | YES | | |
| | A server with the first of feedbacks and the fir | | | |
| Click the info button next to the number of associated feedbacks for "Guideline 10" | A popup with the list of feedbacks associated to "Guideline 10" | YES | | |
| | appears | | | |
| Press the "X" button | The feedbacks popup closes | YES | | |
| Select a "Margin of improvement (MI)" and a | The "Level of circularity improvement" indicator corresponding to | VEC | | |
| "Relevance (R)" for each guideline | each guideline is computed | YES | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of | | | |
| | the new design supported by the advisory" sub-section appears, | YES | | |
| | showing the guidelines radar-chart | | | |
| Assess the guidelines radar chart in the "Step 3: | All relevant information for the desired section is displayed | | | |
| Generation of the new design supported by the | All relevant information for the desired section is displayed | VEC | | |
| advisory" sub-section | | YES | | |
| | | | | |
| Hover the mouse over a point in the guidelines radar | A popup showing the "Level of circularity improvement" indicator | YES | | |
| chart | appears | | | |
| Select a guideline from the "Assessment for" | The "Associated feedback" and "Advisory" content in the table below | | | |
| dropdown, at the bottom of the guidelines radar chart | change accordingly | YES | | |
| | | | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | |
| Move between the "LCA" and "LCC" tabs below the | The scenarios radar chart updates accordingly | | | |
| "OPEN SCENARIOS IN GRETA" button | The domained radar chart apacted accordingly | YES | | |
| Click the "REFRESH" button on the top right of the | The scenarios radar chart and comments section refresh | | | |
| "Scenarios comparison" section | The scenarios radar chart and comments section refresh | YES | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | VEC | | |
| | | YES | | |
| Hover the mouse over a point in the scenarios radar | A tooltip with the category value for the selected scenario appears | | | |
| chart | | YES | | |
| | | | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | | · |
| | | 153 | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | VEO | | |
| | | YES | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | |
| Click the "DOWNLOAD" button at the top right of the | The metal wheel is exported in ".png" format | 120 | | |
| "Metal Wheel (MARAS)" section | The metal wheel is exported in .prig Tormat | YES | | |
| | | | <u> </u> | |
| Non-Functional Evaluation | | | | |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total | 3.3 |
| Ref # Question | | | Answ | ver (0-4) |
| | and benefit of the service to my organization/network. | | | 3 |
| the easy to an actual the objective | The second of th | | | · |

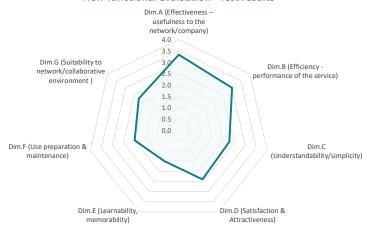
| | The outcome of the service is important / useful for the company/network. The service creates value for | or my | | |
|--|---|------------------------|--|---|
| | company &network, for example by | | | |
| | - saving costs - increasing income | | | |
| | - saving time, accelerating processes | | | |
| A2 | - decreasing risks | | 4 | 1 |
| , | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | 3 |
| A4 | What could be improved to make more value of the tool/service? | | | |
| | I can't find which are the best-case scnarios and how are they | <u> </u> | | |
| | ciency - performance of the service) | | Total | 3.0 |
| Ref# | Question | | Answe | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 3 | |
| B2 | The service runs fast enough. | | 3 | |
| B3 | The service does not require too many steps to achieve the result. | | 3 | |
| B4 | All the functions are beneficial for my company/ network. | | | 3 |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 3 |
| В6 | What could be improved to make more value of the tool/service? | | | |
| Dire O (II | With only one part it's dificult to eval | <u> </u> | Total | |
| <u> </u> | derstandability/simplicity) | | Total | 2.3 |
| Ref# | Question | | Answe | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 2 |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | |
| C3 | The service offers sufficient guidance | | 1 | |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | 2 | 2 |
| | The support to business processes / tasks is clear. The user can understand his/her role and the purpos | e of the | | |
| C5 | actions required. | lo or the | 3 | 3 |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what | it is | | |
| C6 | required for input. | | 3 | 3 |
| C7 | The output of the service is clear and understandable. | | 2 | 2 |
| C8 | What could be improved to make more value of the tool/service? | | | |
| Co | The section "scenarios comparison" is | not clear enough for n | ne | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | 2.4 |
| Ref# | 0#: | | | |
| INC! # | Question | i | Answe | r (0-4) |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | Answe | |
| D1 | | and starting | 3 | 3 |
| | The service is attractive to the user. I feel satisfied and comfortable when using the service. | and starting | | 3 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status. | and starting | 1 | 3 |
| D1 D2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. | and starting | 1 | 3 |
| D1 D2 D3 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. | and starting | 2 | 1 |
| D1 D2 D3 D4 D5 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally | and starting | 2 | 2 |
| D1 D2 D3 D4 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. | | 2 | 3 1 2 3 3 |
| D1 D2 D3 D4 D5 D6 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | es and who does it? Do | 2 | 3 1 2 3 3 |
| D1 D2 D3 D4 D5 D6 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline | es and who does it? Do | o they come from the eco-des | 3 2 3 3 3 sign feedbacks? |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline trability, memorability) | es and who does it? Do | o they come from the eco-des | 2 3 3 3 sign feedbacks? 1.5 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline rnability, memorability) Question | es and who does it? Do | o they come from the eco-des Total Answe | 2 3 3 3 sign feedbacks? 1.5 r (0-4) |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline rnability, memorability) Question It is easy to start using the service and to perform the main tasks. | es and who does it? Do | o they come from the eco-des Total Answe | 2 3 3 3 sign feedbacks? 1.5 r (0-4) |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref# E1 E2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | es and who does it? Do | o they come from the eco-des Total Answe | 2 3 3 3 sign feedbacks? 1.5 r (0-4) |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? | es and who does it? Do | o they come from the eco-de: Total Answe | 2 3 3 3 sign feedbacks? 1.5 r (0-4) |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? The query is interesting, but it is not clear to | es and who does it? Do | o they come from the eco-de: Total Answe | 2 3 3 3 sign feedbacks? 1.5 r (0-4) |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? I can't find how to save the work done. Where are introduced the design guideline remability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? The query is interesting, but it is not clear to preparation & maintenance) | es and who does it? Do | o they come from the eco-dec Total Answe | 2 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 |
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| Results Assessment | | |
|----------------------|-------------|--|
| Functional Dimension | | |
| | TSS Results | |
| TSS Success | 29 | |
| TSS Partial | 0 | |
| TSS Fail | 0 | |



| Non-functional Dimension | Ion-functional Dimension | | | | |
|--|--------------------------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | | |
| Dim.B (Efficiency - performance of the service) | 3.0 | | | | |
| Dim.C (Understandability/simplicity) | 2.3 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 2.4 | | | | |
| Dim.E (Learnability, memorability) | 1.5 | | | | |
| Dim.F (Use preparation & maintenance) | 2.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.3 | | | | |
| | Total | | | | |
| | 2.4 | | | | |







TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case References

| Test Case ID | CWP_DIS_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|-------------------|--|----------------------------------|--|
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Visualize advisory information about a car | nart in the Disassembly Advisory | Dachhaard |

Test Script

C6

C7

required for input.

The output of the service is clear and understandable.

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.
- 5. Click the "Dis advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format

The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is

| 6. Assess | that every infor | mation ex | pected is corr | ectly reported in its dedicated | card and is dis | splayed in the app | ropriate format | t. | | |
|-----------------|-------------------------------------|---------------|-----------------|---|------------------------|---------------------|-----------------|--|-----------------------------------|-------|
| | S _{success} | 11 | | TSS _{partial} | 1 | 1 | | TSS _{fail} | 0 | |
| Functionalities | | | | Expected Results | xpected Results Passed | | | Remarks | | |
| | the Circularity We | eb Platform | | Circularity Web Platform shows I | ogin page | | YES | | | |
| Login to the | | | | User successfully logged in | | | YES | 1 | | |
| | ected to home page | ge | | Home page correctly opened | | | YES | | | |
| | "combimeter" ca | | | List of relevant car parts shows up YES | | | | 1 | | |
| | ponent to visualiz | | | | | YES | † | | | |
| | OPEN DIS" buttor | | assemblability | Disassembly dashboard is shown | | | | 1 | | |
| Module" ca | | | | YES | | | YES | | | |
| Click the "[| Dis advisory" link | on the top | navbar. | Disassembly advisor dashboard | correctly opened | 1 | YES | | | |
| | ectrical and electi | | | All relevant information for the de | esired sub-section | n is displayed | YES | | | |
| | he "Metals to be | | | | | | TES | | | |
| | e and cost metric | | | All relevant information for the de | | | YES | | | |
| Adjust the | "Disassembly cos | st per hour" | value | The "Estimated disassembly cost | " metric is adjus | ted accordingly | YES | | | |
| | ermodynamic rar he "Metals to be | | | All relevant information for the de | esired sub-section | n is displayed | YES | | | |
| | "Thermodynamic e for revenue" me | | e limit" and | The lower limits for the "Thermoon "Revenue" metrics are adjusted a | | | PARTIAL | It's not possible to change the value i | in the Thermodynamic rarity value | limit |
| Hover with | the mouse over a | a metal in tl | ne chart | A tooltip with specific metrics ab | out the selected | metal is shown | YES | | | |
| Non-Fun | nctional Evalu | ation | | | | | | | | |
| Dim.A (Eff | ectiveness use | efulness to | the network/c | ompany) | | | | Total | 2.3 | |
| Ref# | Question | | | | | | | | Answer (0-4) | |
| A1 | | nderstand | the objective | and benefit of the service to r | ny organization | n/network. | | | 3 | |
| | | | | tant / useful for the company/r | | | ue for my | 1 | | |
| I | company ≠ | | | r - 7/- | | | • | | | |
| I | - saving costs | | • | | | | | | | |
| | - increasing in | ncome | | | | | | | | |
| 1 | - saving time, | accelerati | ing processes | | | | | | | |
| A2 | - decreasing r | | | | | | | | 2 | |
| 1 | - improving qu | | | | | | | | | |
| | - sharing infor | | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | - boosting lea | | | | | | | | | |
| | | | with other or | | 1 | | | + | 2 | |
| A3 | | | | iness objectives / perform the t | | service. | | 1 | 2 | |
| A4 | | | | ore value of the tool/service | | | | | | |
| | | | | e a little aid to understand the | different section | ns of the tool. For | example for th | e Overall Score: how is evaluated? | | ? |
| <u> </u> | iciency - perforn | nance of th | ne service) | | | | | Total | 3.6 | |
| Ref# | Question | | | | | | | _L | Answer (0-4) | |
| B1 | | | | chieve the objectives with the | service are rea | sonable/moderate | э | | 3 | |
| B2 | The service ru | uns fast er | nough. | | | | | | 4 | |
| В3 | The service d | oes not re | quire too man | y steps to achieve the result. | | | | | 4 | |
| B4 | All the functio | ns are ber | neficial for my | company/ network. | | | | | 4 | |
| B5 | The service st | tructure al | lows flexible 8 | k fast performance of the tasks | | | | | 3 | |
| В6 | What could b | e improv | ed to make m | ore value of the tool/service | ? | | | | | |
| Dim.C (Un | derstandability/s | simplicity) | | | | | | Total | 2.3 | |
| Ref# | Question | | | | | | | _ | Answer (0-4) | |
| C1 | | tructure a | nd logic is eas | y and self-clear to understand | and recogniza | ble. | | T | 2 | |
| C2 | - | | | my organization and in line wit | | | | | 2 | |
| C3 | | | cient guidance | | | miology | | | 2 | |
| | | | | derstandable. The look and fee | al is self evalor | atory and follows | the | | | |
| C4 | TREASURE st | tyle. | | | • | • | | | 2 | |
| C5 | actions requir | ed. | | asks is clear. The user can un | | <u> </u> | | | 2 | |
| | The service is | simple er | nough for prac | tical use. The tasks do not loo | k complex to n | erform It is clear | what is | | - | |

3

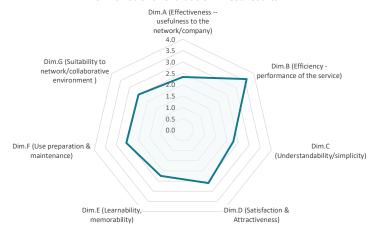
3

| C8 | What could be improved to make more value of the tool/service? | 4h | \ | | |
|------------|---|-----------------------|--|---------------|-----|
| im D (8-4 | The practicality of the tool in the business sector (yes in tisfaction & Attractiveness) | tne academic sector |) does not seen very cle Total | ear to me. | 2.6 |
| • | Question | - | TOTAL | Answer (0-4) | 2.0 |
| D1 | | | | 3 | |
| וט | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | აა | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the s again. | tatus and starting | | 2 | |
| Б0 | | | | 3 | |
| D3 | The mental workload when using the service is low. | | | 2 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | აა | |
| D6 | What could be improved to make more value of the tool/service? It is difficult to evaluate this sec | tion with only a comm | la far it | | |
| m E /I or | arnability, memorability) | uon with only a samp | Total | | 0.0 |
| | Question | | Total | Anguar (0, 4) | 2.3 |
| ef # | | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 2 | |
| E2 | It is easy to learn new features/ functionalities. | | | 2 | |
| E3 E4 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 2 | |
| E4 | The service offers sufficient training support. What could be improved to make more value of the tool/service? | | | | |
| E5 | · | aa aan ba dana addii | tionally to data ayanı | | |
| m E /I le/ | I don't understand what tasks or functionalities preparation & maintenance) | es can be done addi | Total | | 2.6 |
| f# | Question | | Total | Answer (0-4) | 2.0 |
| F1 | The take-up of the service does not require high preparation. | | | 3 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 3 | |
| ГZ | The data needed by the service exist in my company/network in the proper format and can be eas | ilv made | | | |
| F3 | available for the service. | illy Illade | | 3 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | - | | 3 | |
| F5 | The service can be easily shared in the network. | | | 2 | |
| F6 | The service does not require specific knowledge from the users. | | | 2 | |
| F7 | The service is easy to take up also for SMEs. | | | 2 | |
| F8 | The service does not require extensive change of business processes. | | | 3 | |
| F9 | The service does not require high maintenance. | | | 2 | |
| | What could be improved to make more value of the tool/service? | | | | |
| F10 | I do not know the tool enough to be able | to evaluate all these | usage guestions | | |
| m.G (Su | itability to network/collaborative environment) | | Total | | 2.5 |
| ef# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | |
| G3 | The service takes into account safety and security. | | 2 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 3 | |
| | Assessment | | | | |
| | Assessment I Dimension | | | | |
| | . 2 | 1 | | TSS Results | |
| SS Succ | cess | - | | | |
| SS Parti | | | | | |
| SS Fail | | | | | |



| Non-functional Dimension | |
|---------------------------------|---------|
| | Results |
| Dim.A (Effectiveness usefulness | 2.3 |

| Dim.B (Efficiency - performance of the service) | 3.6 |
|--|-------|
| Dim.C (Understandability/simplicity) | 2.3 |
| Dim.D (Satisfaction & Attractiveness) | 2.6 |
| Dim.E (Learnability, memorability) | 2.3 |
| Dim.F (Use preparation & maintenance) | 2.6 |
| Dim.G (Suitability to network/collaborative environment) | 2.5 |
| | Total |
| | 2.6 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|-------------------|--|----------------------------------|--|
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Visualize advisory information about a car | nart in the Beaudahility Advisor | Dashboard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Click the "Rec advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

 ISS process.

 15 0

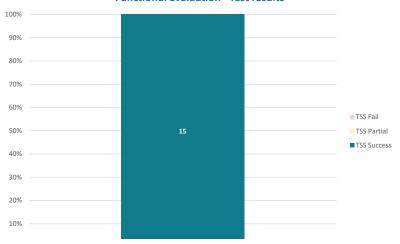
 TSS partial

 0

| TSS _{success} | 15 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 |
|--|--|---|--|--|--------------------------|----------|------------------------------|--|
| Functionalities | | | Expected Results | | | Passed | Remarks | |
| Access to the Circularity | Web Platform | | Circularity Web Platform shows log | in page | | YES | | |
| Login to the Platform | | | User successfully logged in | | | YES | | |
| User redirected to home | page | | Home page correctly opened | | | YES | | |
| Search for "combimeter" | | | List of relevant car parts shows up | | | YES | | |
| Select component to visu | | | Modules selection page is shown for | or the selected cor | mnonent | YES | | |
| Click the "OPEN REC" bu | | acyclability | Recyclability dashboard is shown for | | | YES | | |
| | | | Recyclability advisor dashboard co | | пропен | YES | | |
| | | | · · · | | uad | TES | | |
| which combination of disa process to implement (fro section | ssembly path | and recycling | All relevant information for the desi | red table is displa | yeu | YES | | |
| Press the info button at the route | | | The "DIS & REC route X" popup ap | pears | | YES | | |
| Assess the materials in th | e "DIS & REC | route X" table | All relevant information for the desi | red table is display | yed | YES | | |
| Assess the revenue indica | ator | | All relevant information for the desi | red section is disp | layed | YES | | |
| Adjust the "Total cost" va | | | The "Profit" indicator updates accor | rdingly | | YES | | |
| Press the "Close" ("X") bu | | | The "DIS & REC route X" popup clo | | | YES | | |
| Assess the "Graphical into section | | | All relevant information for the desi | | | YES | | |
| Hover with the mouse ove chart | | route in the | A tooltip with specific metrics abou shown | t the selected recy | cling route is | YES | | |
| Non-Functional Eva | | | | | | | | |
| Dim.A (Effectiveness | usefulness to | the network/co | ompany) | | | | Total | 2.0 |
| The outcor | ne of the se | rvice is impor | and benefit of the service to my tant / useful for the company/net | | | for my | *** | rer (0-4) 1 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting | ne of the se network, for sts income e, accelerati g risks quality formation customers | rvice is impor example by ing processes | | | | o for my | *** | rer (0-4) 1 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and | rvice is impor example by ing processes | tant / useful for the company/net | | | for my | *** | 1 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting - supporting | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and | rvice is impor example by ing processes innovation with other org | tant / useful for the company/net | work. The servic | ce creates valu e | for my | *** | 1 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - supportint A3 It is easy to | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the | rvice is imporexample by ing processes innovation with other orge planned busi | tant / useful for the company/net | work. The servic | ce creates valu e | o for my | *** | 3 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the | rvice is imporexample by ing processes innovation with other orge planned busi | tant / useful for the company/net ganizations ness objectives / perform the tas ore value of the tool/service? | work. The service | ce creates valu e | | Answ | 3 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to A4 | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and a networking achieve the | rvice is imporexample by ing processes innovation with other ord planned busi ed to make m | tant / useful for the company/net ganizations ness objectives / perform the tas ore value of the tool/service? | work. The service | ce creates value | | Answ | 3 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to A4 Dim.B (Efficiency - perfe | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and a networking achieve the | rvice is imporexample by ing processes innovation with other ord planned busi ed to make m | tant / useful for the company/net ganizations ness objectives / perform the tas ore value of the tool/service? | work. The service | ce creates value | | Answ | 2 3.6 |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supportint A3 It is easy to A4 Dim.B (Efficiency - perfe Ref # Question | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and a networking achieve the be improve | rvice is imporexample by ing processes innovation with other org planned busi ed to make m | tant / useful for the company/net ganizations ness objectives / perform the tas ore value of the tool/service? It is not | ks with the services | ice. | | Answ | 2 2 3.6 ver (0-4) |
| A1 It is easy to The outcor company & - saving co: - increasing - saving tim - decreasin - improving - sharing in - attracting - boosting I - supporting A3 It is easy to What could Dim.B (Efficiency - perfe Ref # Question B1 The time ar | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and a networking achieve the I be improve | rvice is imporexample by example by ing processes innovation with other ord planned busi ed to make m the service) | tant / useful for the company/net ganizations ness objectives / perform the tas ore value of the tool/service? | ks with the services | ice. | | planatory help. Total Answ | 3 3.6 Ver (0-4) 3 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting I - supporting A3 It is easy to A4 What could Dim.B (Efficiency - perform Ref # Question B1 The time ar B2 The service | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the l be improve ormance of the d resources runs fast er | innovation with other ord planned busi ed to make m required to achough. | ganizations ness objectives / perform the tas ore value of the tool/service? It is not | ks with the services | ice. | | planatory help. Total Answ | 3 3.6 rer (0-4) 3 4 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to What could Dim.B (Efficiency - perfe Ref # Question B1 The time ar B2 The service B3 The service | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the le improve ormance of the d resources runs fast er does not re | innovation with other org planned busi ed to make m eservice) required to according to make to make m energy to according | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3 3.6 ver (0-4) 3 4 4 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving time A2 - decreasin - improving - sharing in - attracting - boosting - supporting A3 It is easy to What could blim. B (Efficiency - performance B1 The time ar B2 The service B3 The service B4 All the func | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and a networking achieve the l be improve ormance of the d resources runs fast en does not re- tions are ber | innovation with other ord planned busi ed to make m required to ac nough. equire too man meficial for my | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3 3.6 2 3.6 4 4 4 4 4 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving time A2 - decreasin - improving - sharing in - attracting - boosting - supporting A3 It is easy to A4 What could be a cou | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the be improve formance of the d resources runs fast er does not re tions are ber | innovation with other order planned busing ed to make meservice) required to accough, equire too man efficial for my llows flexible 8 | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3 3.6 ver (0-4) 3 4 4 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving time A2 - decreasin - improving - sharing in - attracting - boosting - supporting A3 It is easy to A4 What could be a cou | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the be improve formance of the d resources runs fast er does not re tions are ber | innovation with other order planned busing ed to make meservice) required to accough, equire too man efficial for my llows flexible 8 | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3 3.6 2 3.6 4 4 4 4 4 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to What could B1 The time ar B2 The service B3 The service B4 All the func B5 The service What could | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and g networking achieve the be improve formance of the does not re tions are ber structure al | innovation with other order planned busing ed to make meservice) required to accough, equire too man efficial for my llows flexible 8 | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3 3.6 2 3.6 4 4 4 4 4 |
| A1 It is easy to The outcor company & - saving cor increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting less - supporting A3 It is easy to What could B1 The time and B2 The service B4 All the func B5 The service B6 What could Dim.C (Understandabilities) | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and g networking achieve the be improve formance of the does not re tions are ber structure al | innovation with other order planned busing ed to make meservice) required to accough, equire too man efficial for my llows flexible 8 | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. | sks with the services easy to interpre | ice. | | planatory help. Total Answ | 3.6 ver (0-4) 3 4 4 4 3 2.0 |
| A1 It is easy to The outcor company & - saving cor increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to A4 What could bim. B [Efficiency - perference B2 The service B3 The service B4 All the func B5 The service B6 What could bim. C [Understandabilit Ref # Question The service C1 The S1 The S | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the d resources runs fast er does not re tions are ber structure al be improve y/simplicity) structure ar | innovation with other org planned busi ed to make m required to ac rough. require to man reficial for my lows flexible 8 ed to make m | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. if ast performance of the tasks. ore value of the tool/service? | sks with the service are reason | ice. et the results wit | | planatory help. Total Answ | 3 3.6 2 3.6 Ver (0-4) 3 4 4 4 4 4 3 3 2 2.0 Ver (0-4) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| A1 It is easy to The outcor company & - saving cor - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting l - supporting A3 It is easy to A4 What could bim. B [Efficiency - perference] B1 The service B3 The service B4 All the func B5 The service B4 The service B6 What could bim. C [Understandabilit Ref # Question C1 The service C2 The concepts with the counter of the service C2 The concepts with the company to the concepts with the company to the company to the company to the concepts with the company to the concepts with the company to the company | ne of the se network, for sts income e, accelerati g risks quality formation customers earning and networking achieve the d resources runs fast er does not re tions are ber structure al l be improve y/simplicity) structure ar sts are under | innovation with other org planned busi ed to make m required to ac rough. require to man reficial for my lows flexible 8 ed to make m | ganizations ness objectives / perform the tas ore value of the tool/service? It is not chieve the objectives with the se y steps to achieve the result. company/ network. I fast performance of the tasks. ore value of the tool/service? | sks with the service are reason | ice. et the results wit | | planatory help. Total Answ | 3.6 ver (0-4) 3 4 4 4 3 2.0 ver (0-4) |

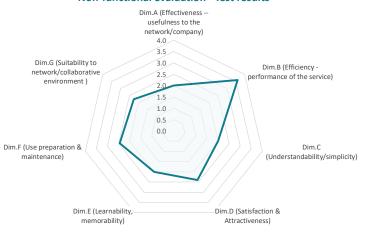
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows th TREASURE style. | | | 2 | |
|--|--|---------------------|----------------------------------|---|-----|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purp actions required. | | 2 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w required for input. | hat is | 2 | | |
| C7 | The output of the service is clear and understandable. | | | 2 | |
| 00 | What could be improved to make more value of the tool/service? | | | | |
| C8 | In my opinion it is difficult to ur | derstand the resu | lts | | |
| m.D (Sat | sfaction & Attractiveness) | | Total | | 2.4 |
| f# | Question The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | Answer (0-4) | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statu again. | s and starting | | 2 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D3 | The service rewards the user also personally | | | 2 | |
| | ' ' | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | It is difficult to evaluate this section | with only a sample | | | |
| | rnability, memorability) | | Total | | 2.0 |
| f# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to learn new features/ functionalities. | | | 1 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 2 | |
| E4 | The service offers sufficient training support. | | | 2 | |
| | | | | | |
| | | | | | |
| E5 | What could be improved to make more value of the tool/service? | uire explanations | about its functionalities | - | |
| - | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestion. | uire explanations a | | | 2.4 |
| m.F (Use | What could be improved to make more value of the tool/service? The use of the application is simple, but would requere preparation & maintenance) | uire explanations a | about its functionalities Total | | 2.4 |
| m.F (Use | What could be improved to make more value of the tool/service? The use of the application is simple, but would requere preparation & maintenance) Question | uire explanations a | | Answer (0-4) | 2.4 |
| m.F (Use | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestration & maintenance) Question The take-up of the service does not require high preparation. | uire explanations a | | Answer (0-4) | 2.4 |
| m.F (Use | What could be improved to make more value of the tool/service? The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | | | Answer (0-4) | 2.4 |
| m.F (Use | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestration & maintenance) Question The take-up of the service does not require high preparation. | | | Answer (0-4) | 2.4 |
| m.F (Use f # F1 F2 | What could be improved to make more value of the tool/service? The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily represented the service of the service of the service of the service of the tool of the service of t | | | Answer (0-4) 3 | 2.4 |
| m.F (Use f# F1 F2 F3 | The use of the application is simple, but would requestion & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. | | | Answer (0-4) 3 3 3 | 2.4 |
| m.F (Use f# F1 F2 F3 F4 F5 | The use of the application is simple, but would requestion and the service does not require high preparation. The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily required for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | | Answer (0-4) 3 3 3 3 3 | 2.4 |
| m.F (Use f# F1 F2 F3 F4 F5 F6 | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestion a maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | | | Answer (0-4) 3 3 3 3 2 1 | 2.4 |
| m.F (Use of # F1 F2 F3 F4 F5 F6 F7 | What could be improved to make more value of the tool/service? The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | | | Answer (0-4) 3 3 3 3 2 1 2 | 2.4 |
| m.F (Use of # F1 F2 F3 F4 F5 F6 F7 F8 | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestron & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. | | | Answer (0-4) 3 3 3 3 2 1 2 3 | 2.4 |
| m.F (Use of # F1 F2 F3 F4 F5 F6 F7 | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestron & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | | Answer (0-4) 3 3 3 3 2 1 2 | 2.4 |
| m.F (Use of # F1 F2 F3 F4 F5 F6 F7 F8 | What could be improved to make more value of the tool/service? The use of the application is simple, but would requestron & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. | | | Answer (0-4) 3 3 3 3 2 1 2 3 | 2.4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suite of the content of the co | The use of the application is simple, but would required to the application is simple, but would required to the application is simple, but would required to the service does not require high preparation. The take-up of the service does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? | | | Answer (0-4) 3 3 3 3 2 1 2 3 2 | 2.4 |
| m.F (Use f# F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Sui | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suit of # G1 | The use of the application is simple, but would required to the application is simple, but would required to the application is simple, but would required to the service does not require high preparation. The take-up of the service does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. What could be improved to make more value of the tool/service? | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) | |
| m.F (Use of # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suitef # | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suited of # G1 | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 m.G (Suif # G1 G2 | The use of the application is simple, but would requestion The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 G1 G2 G3 G4 | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 G2 G3 G4 esults A | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reavailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 G2 G3 G4 esults A | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily reversible for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 2 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 G2 G3 G4 Cesults Aunctional | The use of the application is simple, but would require preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. ssessment Dimension | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 | |
| ## F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 ## G1 G2 G3 G4 ## G2 G3 G4 ## G1 G2 G3 G4 ## G2 G3 G4 ## G2 G3 G4 ## G2 G3 G3 G3 G4 G4 G3 G3 G3 G3 G4 G4 G3 G3 G3 G3 G4 G4 G3 G3 G3 G4 G4 G3 G3 G3 G3 G4 G4 G3 G3 G3 G3 G4 | The use of the application is simple, but would requestration & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. sessment Dimension | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 2 3 3 | |
| m.F (Use ### ### ### ### ### ### ### | The use of the application is simple, but would requestration & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ravailable for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. sessment Dimension | | Total | Answer (0-4) 3 3 3 3 2 1 2 3 2 Answer (0-4) 2 2 2 3 3 | |





6

| Ion-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 2.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 2.4 | | | |
| Dim.E (Learnability, memorability) | 2.0 | | | |
| Dim.F (Use preparation & maintenance) | 2.4 | | | |
| Dim.G (Suitability to network/collaborative environment) | 2.3 | | | |
| | Total | | | |
| | 2.4 | | | |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---|-------------------|--|---------------------|---|--|--|--|
| | Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| ı | Short Description | Visualiza advisory information about a gar part in the Eq. Design Advisory Dashboard | | | | | |

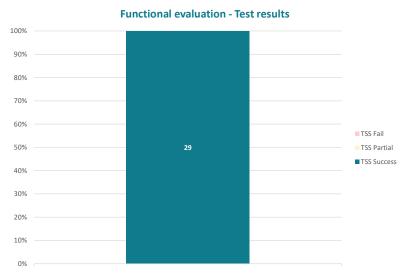
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Click the "Eco advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | ectly reported in its dedicated card and is displayed in the appro | priate format | | |
|---|---|--|---------------------|-----------|
| TSS _{success} 29 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | 120 | + | |
| Module" card | Lco-design dashboard is shown for the selected component | YES | | |
| | F didi dbbd | | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | l | | |
| disassembly and recycling" table in the "Step 1: | section | YES | | |
| Preliminary analysis of the reference design" sub- section of the "Reference Design" section | | | | |
| | | | | |
| Assess the "Eco-design feedback" table in the "Step 1: | All the relevant feedback is properly displayed for the desired sub- | l | | |
| Preliminary analysis of the reference design" sub- | section | YES | | |
| section of the "Reference Design" section | | | | |
| | | | | |
| Click the "Generate Guidelines" button in the "Step 2: | "Generate guidelines" popup is shown | | | |
| Generation of specific eco-design guidelines and | | YES | | |
| prioritization" sub-section | | | | |
| Hover the mouse over the info icon next to the | A tooltip with the guideline name appears | | | |
| guideline ID | | YES | | |
| Click the info button next to the number of associated | A popup with the list of feedbacks associated to "Guideline 10" | | | |
| feedbacks for "Guideline 10" | appears | YES | | |
| Press the "X" button | The feedbacks popup closes | YES | | |
| | | 169 | | |
| Select a "Margin of improvement (MI)" and a | The "Level of circularity improvement" indicator corresponding to | YES | | |
| "Relevance (R)" for each guideline | each guideline is computed | | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of the new design supported by the advisory" sub-section appears, | | | |
| | showing the guidelines radar-chart | YES | | |
| | | | | |
| Assess the guidelines radar chart in the "Step 3: | All relevant information for the desired section is displayed | | | |
| Generation of the new design supported by the | | YES | | |
| advisory" sub-section | | | | |
| Hover the mouse over a point in the guidelines radar | A popup showing the "Level of circularity improvement" indicator | | | |
| chart | appears | YES | | |
| Select a guideline from the "Assessment for" | The "Associated feedback" and "Advisory" content in the table below | | | |
| dropdown, at the bottom of the guidelines radar chart | change accordingly | YES | | |
| | | | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | |
| <u> </u> | | | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | |
| Move between the "LCA" and "LCC" tabs below the | The scenarios radar chart updates accordingly | YES | | |
| "OPEN SCENARIOS IN GRETA" button | | | | |
| Click the "REFRESH" button on the top right of the | The scenarios radar chart and comments section refresh | YES | | |
| "Scenarios comparison" section | | | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | | |
| Hover the mouse over a point in the scenarios radar | A tooltip with the category value for the selected scenario appears | | | |
| chart | | YES | | |
| | | I | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | | | |
| | | YES | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | | | |
| January 2011 State of the button | | YES | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | VEC | | |
| | · · | YES | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | |
| Click the "DOWNLOAD" button at the top right of the | The metal wheel is exported in ".png" format | YES | | |
| "Metal Wheel (MARAS)" section | | 1 | | |
| Non-Functional Evaluation | | | | |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total | 2.7 |
| | | | | - |
| | | | Answ | ver (0-4) |
| Ref # Question | and benefit of the service to my organization/network. | | Answ | ver (0-4) |

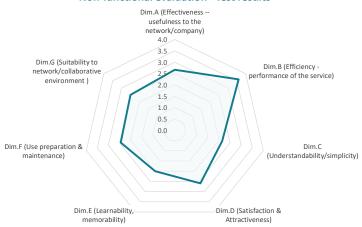
| | The outcome of the service is important / useful for the company/network. The service creates value | e for my | | |
|--|---|------------------|---|---|
| | company &network, for example by | | | |
| | - saving costs - increasing income | | | |
| | - saving time, accelerating processes | | | |
| A2 | - decreasing risks | | ; | 3 |
| / | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | 2 |
| A4 | What could be improved to make more value of the tool/service? | | | |
| | Additional brief explanations of the cor | cepts used wo | <u> </u> | |
| <u> </u> | ciency - performance of the service) | <u> </u> | Total | 3.6 |
| Ref# | Question | i | Answe | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | | |
| B2 | The service runs fast enough. | | 4 | |
| B3 | The service does not require too many steps to achieve the result. | | | |
| B4 | All the functions are beneficial for my company/ network. | | | 1 |
| B5 | The service structure allows flexible & fast performance of the tasks. | | ; | 3 |
| В6 | What could be improved to make more value of the tool/service? | | | |
| Dim O (II | James and a billies to invasible to A | | T-4-I | 0.1 |
| <u> </u> | derstandability/simplicity) | L . | Total | 2.1 |
| Ref# | Question | | Answe | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 2 |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | 3 |
| C3 | The service offers sufficient guidance | | | 2 |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | ie | 2 | 2 |
| | The support to business processes / tasks is clear. The user can understand his/her role and the purp | onse of the | | |
| C5 | actions required. | Jose of the | 2 | 2 |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w | hat is | | |
| C6 | required for input. | | 2 | 2 |
| C7 | The output of the service is clear and understandable. | | 2 | 2 |
| -00 | What could be improved to make more value of the tool/service? | | | |
| C8 | There are outputs that do not seem clear to me, such as what o | o the scenarios | s shown, best and standard, consist of | ? |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | 2.6 |
| | | | | |
| Ref# | Question | · i | Answe | er (0-4) |
| Ref# D1 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service. | | Answe | |
| D1 | | us and starting | | 3 |
| | The service is attractive to the user. I feel satisfied and comfortable when using the service. | us and starting | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. | us and starting | | 3 |
| D1 D2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statu | us and starting | 2 | 2 |
| D1 D2 D3 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. The mental workload when using the service is low. | us and starting | | 3 2 3 |
| D1 D2 D3 D4 D5 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. The mental workload when using the service is low. The service rewards the user also personally | us and starting | | 3 2 3 2 |
| D1 D2 D3 D4 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statu again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. | | | 3 2 3 2 |
| D1 D2 D3 D4 D5 D6 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | | 3 2 3 2 |
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| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is difficult to evaluate this section rability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? As I have indicated in other comments, some clarification of preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require textensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? I do not know the tool enough to be able to tability to network/collaborative environment.) Question The service supports collaboration and interoperability for my network. | on the different | mple for it. Total Answe sections/functionalities would help Total Answe se usage questions Total Answe | 2.0 2.0 2.0 2.1 2.4 2.4 2.4 2.4 2.2 2.4 2.5 3 3 3 3 2 2 2 2 2 2 2 2 2 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is difficult to evaluate this section mability, memorability, memorability. Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? As I have indicated in other comments, some clarification of preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require wetensive change of business processes. The service does not require make more value of the tool/service? I do not know the tool enough to be able to tability to network/collaborative environment.) Question The service is suitable for heterogeneous users and different networks. | on the different | mple for it. Total Answe sections/functionalities would help Total Answe se usage questions Total Answe | 2.0 2.0 2.0 2.0 2.1 2.2 2.4 2.4 2.2 2.4 2.2 2.5 2.5 |

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |



| Non-functional Dimension | | |
|--|---------|--|
| | Results | |
| Dim.A (Effectiveness usefulness to the network/company) | 2.7 | |
| Dim.B (Efficiency - performance of the service) | 3.6 | |
| Dim.C (Understandability/simplicity) | 2.1 | |
| Dim.D (Satisfaction & Attractiveness) | 2.6 | |
| Dim.E (Learnability, memorability) | 2.0 | |
| Dim.F (Use preparation & maintenance) | 2.4 | |
| Dim.G (Suitability to network/collaborative environment) | 2.5 | |
| | Total | |
| | 2.6 | |







TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|---|---------------------|--|--|--|
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Deceription | Visualiza hasis dismantling information about a gay you in the Discognophilability Dockhood | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

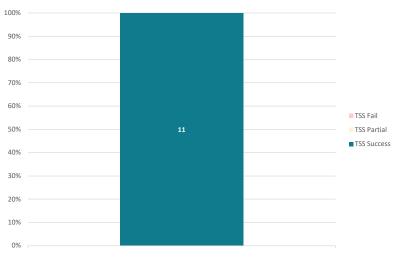
actions required.

- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

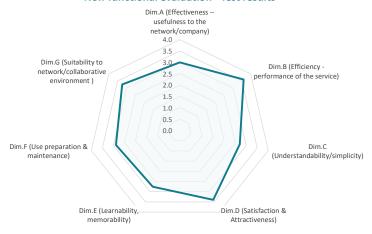
| | , | ectly reported in its dedicated card and is displayed in the appro | priate iorniat | | |
|----------------|---|---|----------------|---------------------|----------|
| TSS | success 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionali | ties | Expected Results | Passed | Remarks | |
| Access to th | ne Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the | Platform | User successfully logged in | YES | | |
| | cted to home page | Home page correctly opened | YES | | |
| | combimeter" car part | List of relevant car parts shows up | YES | | |
| | · | | | | |
| | conent to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "O | PEN DIS" button in the "Disassemblability | Disassembly dashboard is shown for the selected component | YES | | |
| Module" car | ⁻ d | | 110 | | |
| Assess com | ponent overall stats section | All relevant information for the desired section is displayed | YES | | |
| Assess "Mat | terials composition" & "Material Costs" pie | All relevant information for the desired section is displayed | | | |
| charts section | | | YES | | |
| | assembly times (manual)" section | All relevant information for the desired section is displayed | YES | | |
| | | | | | |
| | assembly metrics" section | All relevant information for the desired section is displayed | YES | | |
| | ed value into hourly cost input in | The "Disassembly cost (lowerbound", "Disassembly cost" and | | | |
| Disassembl | lability metrics" section | "Disassembly cost (upperbound)" metrics adjust their values | YES | | |
| | | accordingly | | | |
| Assess "Cob | oot metrics" section | All relevant information for the desired section is displayed | YES | | |
| Assess "Fee | edback for recyclers" section | All relevant information for the desired section is displayed | YES | | |
| | rent recycling routes from the | The feedback displayed changes depending on the selected route | | | |
| | ly & recycling route" dropdown | The recubuok displayed changes depending on the selected route | YES | | |
| | | T. 116 H. 1 | 1/=0 | | |
| | Add feedback" button | The add feedback popup appears | YES | 1 | |
| | feedback text, then press the "Add | The feedback is correctly inserted for the currently selected recycling | YES | | |
| eedback" b | utton | route | 120 | | |
| Assess "con | nponents extraction priority vs | All relevant information for the desired section is displayed | YES | | |
| disassembly | time" section | | 123 | | |
| Non-Fund | ctional Evaluation | | | | |
| Dim.A (Effe | ctiveness usefulness to the network/c | ompany) | | Total | 3.0 |
| | | | | | |
| | Question | | | | er (0-4) |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | 3 |
| | The outcome of the service is impor- | tant / useful for the company/network. The service creates value | for my | | |
| | · | talle account of the company/nethonal file control of cates value | | | |
| | company &network, for example by | | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks | | | | 3 |
| , | - improving quality | | | | |
| | | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | boosting learning and innovation | | | | |
| | - supporting networking with other org | ganizations | | | |
| A3 | | ness objectives / perform the tasks with the service. | | | 3 |
| | What could be improved to make m | | | | - |
| A4 | what could be improved to make in | ore value or the tooksel vice: | | | |
| | | | | | |
| Dim.B (Effic | ciency - performance of the service) | | | Total | 3.6 |
| Ref# | Question | | | Answe | er (0-4) |
| | The time and resources required to a | chieve the objectives with the service are reasonable/moderate. | | | 3 |
| | · | chieve the objectives with the service are reasonable/moderate. | | | |
| B2 | The service runs fast enough. | | | | 4 |
| В3 | The service does not require too man | y steps to achieve the result. | | | 4 |
| | All the functions are beneficial for my company/ network. | | | | 3 |
| | , | 1 2 | | | |
| B5 | | | | | |
| DC | What could be improved to make m | ore value of the tool/service? | | | |
| B6 | | | | | |
| Sim C (Unit | la vatandahilitu/aimmliaitu) | | | Total | 0.7 |
| | lerstandability/simplicity) | | | Total | 2.7 |
| Ref# | Question | | | Answe | er (0-4) |
| C1 | The service structure and logic is eas | y and self-clear to understand and recognizable. | | | 3 |
| | · · | my organization and in line with TREASURE terminology | | | 2 |
| | ' | | | | |
| C3 | The service offers sufficient guidance | | | | 2 |
| 03 | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | |
| | The responses to user actions are und | derstandable. The look and feel is self explanatory and follows the | е | | 2 |
| C4 | | derstandable. The look and feel is self explanatory and follows the | е | | 3 |
| | TREASURE style. | derstandable. The look and feel is self explanatory and follows the asks is clear. The user can understand his/her role and the purports. | | | 3 |

| | The series is simple according to the feet of the feet | | | | |
|------------------------------------|--|-------------------|-------|--------------|-----|
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | wnatis | | 3 | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | tisfaction & Attractiveness) | | Total | | 3.4 |
| Ref# | Question | - | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the st again. | atus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| • | arnability, memorability) | | Total | | 2.8 |
| | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | | 2 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 2.9 |
| Ref# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | 3 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 3 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ly made | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 2 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 3 | | |
| F9 | The service does not require high maintenance. | | | 3 | |
| F10 | What could be improved to make more value of the tool/service? | _ | | | |
| Dim.G (Su | Itability to network/collaborative environment) | | Total | | 3.3 |
| Ref# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | 3 | | | |
| G3 | The service takes into account safety and security. | 3 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 3 | | |
| | Assessment | | | | |
| | in: | | | | |
| Functional | Dimension | | | | |
| | | | | TSS Results | |
| | | | | TSS Results | |
| TSS Succ TSS Partia TSS Fail | iess | | | TSS Results | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 2.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 2.8 |
| Dim.F (Use preparation & maintenance) | 2.9 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.1 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| Test Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|---|---------------------|--|--|--|
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Short Description | Short Description Assess and export specific information about a car part disassembly time from the Disassemblability Dashboard | | | | |

Test Script

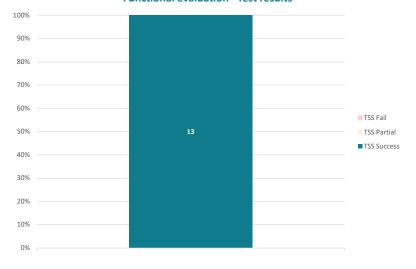
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

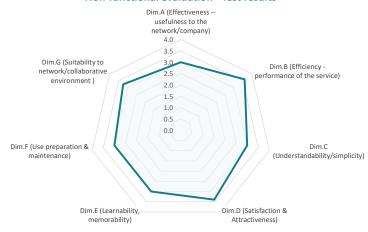
6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

| TSS | S _{success} | 13 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
|------------------------------|---|----------------|-----------------|--|----------------------|-------------------|------------|---------------------|--------------|-----|
| Functionali | | | | Expected Results | | Passed | Remarks | | | |
| Access to th | ne Circularity We | eb Platform | | Circularity Web Platform shows lo | ogin page | | YES | | | |
| Login to the | Platform | | | User successfully logged in | | | YES | | | |
| User redired | cted to home pa | ge | | Home page correctly opened | | | YES | | | |
| Search for " | "combimeter" ca | ır part | | List of relevant car parts shows u | р | | YES | | | |
| Select comp | ponent to visuali | ze | | Modules selection page is shown | for the selected co | mponent | YES | | | |
| Click the "O | PEN DIS" buttor | n in the "Disa | assemblability | Disassembly dashboard is shown | for the selected co | mponent | YES | | | |
| Navigate to | the "Disassemb | ly times (ma | nual)" section. | "Disassembly times (manual)" sed | | has an info | YES | | | |
| Proce the in | ifo button next to | the "Level " | ?" motrio | button next to "Level 1" and "Level 1" button next to "Level 1" and "Level 2" page in the control of the contro | | | | | | |
| 1 1633 the III | no button next to | THE LEVEL 2 | L IIIetile | bisassembly time (level 2) page i | a correctly allowing | | YES | | | |
| Assess the p | parts table | | | Parts table correctly displays all t | he relevant informa | tion | YES | | | |
| Press the "Ir table heade | nfo" button next | to the "Diffic | culty level" | "Difficulty level calculation" popul | p is correctly shown | 1 | YES | | | |
| | difficulty level ta | hla | | The difficulty level table contains | the proper informat | tion | YES | | | |
| | Close" ("X") butto | | | The difficulty level popup closes | the proper informati | lion | | | | |
| | | JII | | | " vlov" format | | YES | | | |
| | Export" button | estion . | | Data are exported successfully in | .xisx iormat | | YES | | | |
| | ctional Evalu ectiveness us | | the net | amnamu) | | | | Total | | 2.0 |
| _ | | eruiness to | tne network/co | ompany) | | | | Total | (2.0) | 3.0 |
| Ref# | Question | | | | | | | | nswer (0-4) | |
| A1 | | | | and benefit of the service to n | | | f | | 3 | |
| | company ≠ | | | tant / useful for the company/n | etwork. The servi | ce creates value | FIOI IIIY | | | |
| | - saving costs | | | | | | | | | |
| | - increasing in | | | | | | | | | |
| | - saving time, | acceleratin | ng processes | | | | | | | |
| A2 | - decreasing | risks | | | | | | | 3 | |
| | - improving q | uality | | | | | | | | |
| | - sharing info | | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | boosting lea | | | | | | | | | |
| 40 | | | with other ord | | 1 20 0 | | | | 3 | |
| A3 | | | | ness objectives / perform the t | | /ice. | | | <u> </u> | |
| A4 | what could t | e improve | d to make m | ore value of the tool/service? | | | | | | |
| Dim B (Effic | L ciency - perforr | mance of the | e service) | | | | | Total | | 3.6 |
| Ref# | Question | nance or the | e service) | | | | | | Inswer (0-4) | 3.0 |
| B1 | | resources | required to a | chieve the objectives with the | service are reason | nable/moderate | | | 3 | |
| B2 | The time and | | | oo.o ano objectives with the s | 20. 1100 010 100301 | | | | 4 | |
| B3 | | | | y steps to achieve the result. | | | | | 4 | |
| B4 | | | | | | | | 3 | | |
| B5 | All the functions are beneficial for my company/ network. The service structure allows flexible & fast performance of the tasks. | | | | 4 | | | | | |
| | What could be improved to make more value of the tool/service? | | | | | | · | | | |
| B6 | B6 | | | | | | | | | |
| Dim.C (Und | derstandability/ | simplicity) | | | | | | Total | | 3.0 |
| Ref# | Question | | | | | | | l A | nswer (0-4) | |
| C1 | The service s | tructure an | d logic is eas | y and self-clear to understand | and recognizable | | | Г | 3 | |
| | | | | my organization and in line wit | | | | | 3 | |
| C3 | The service o | | | , , | | | | | 3 | |
| C4 | The response | s to user a | ctions are und | derstandable. The look and fee | el is self explanato | ry and follows th | е | | 3 | |
| C4 | TREASURE s | , | | | | | | | J | |
| C5 | | | processes / t | asks is clear. The user can und | derstand his/her r | ole and the purp | ose of the | | 3 | |
| | actions requir | ed. | | | | | | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear v | what is | | | |
|------------|--|-----------------|-------|---------------|-----|
| C6 | required for input. | | 3 | | |
| C7 | The output of the service is clear and understandable. | | 3 | | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| Co | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.4 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stat again. | us and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| | rnability, memorability) | | Total | | 3.0 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to learn new features/ functionalities. | | | <u>3</u> 3 | |
| E3 E4 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | | 3 | |
| | What could be improved to make more value of the tool/service? | | | 3 | |
| E5 | vivial could be improved to make more value of the tooliservice: | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.0 |
| Ref# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 3 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 3 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 3 | | |
| F9 | The service does not require high maintenance. | | | 3 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| Dim.G (Sui | I tability to network/collaborative environment) | | Total | | 3.3 |
| Ref# | Question | i | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | 3 | | | |
| G3 | The service takes into account safety and security. | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 3 | | | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| T00.0 | | - | | TSS Results | |
| TSS Succ | | | | | 13 |
| TSS Partia | 31 | | | | 0 |
| TSS Fail | | | | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 3.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.0 |
| Dim.F (Use preparation & maintenance) | 3.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.2 |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|---|---------------------|--|--|--|
| Actors involved | Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Chart Dagarintian | Visuality had a see desire information that a second in the Far Davids Davids and | | | | |

Short Description Visualize basic eco-design information about a car part in the Eco-Design Dashboard

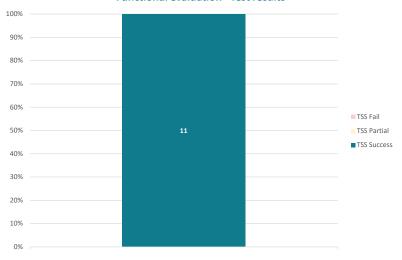
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

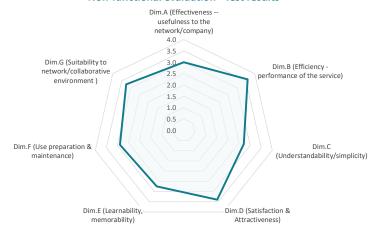
| | | Techy reported in its dedicated card and is displayed in the appr | opriate format | | |
|---|---|---|----------------|---------------------|-----------------|
| TSS _{success} | 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionalities | | Expected Results | Passed | Remarks | |
| Access to the Circularity V | Veb Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | | User successfully logged in | YES | | |
| User redirected to home p | age | Home page correctly opened | YES | | |
| Search for "combimeter" of | ar part | List of relevant car parts shows up | YES | | |
| Select component to visua | lize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" but Module" card | ton in the "Eco-Design | Eco-design dashboard is shown for the selected component | YES | | |
| Assess component overall | stats section | All relevant information for the desired section is displayed | YES | | |
| Assess "Top 5 metals" sec | tion | All relevant information for the desired section is displayed | YES | | |
| Select an option from the right of the section | metals dropdown on the | All relevant information for the desired section updates accordingly | YES | | |
| Hover the mouse over the thermodynamic rarity" sub | • | A tooltip explaining the sub-title meaning appears | YES | | |
| Assess the "Plastic characterization" section All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | | YES | | | |
| Assess the "Disassemblab | ility metrics" section | The appropriate disassemblability metrics are shown | YES | | |
| Assess the "Eco-Design re | commendations" | The proper eco-design recommendations are displayed coherently with the metrics above | YES | | |
| Assess the "Semantic Soc section | | The SSNA tool description is clear and understandable | YES | | |
| Click the "Open document | | The SSNA tool documentation opens in a new tab | YES | | |
| Click the "Open SSNA Too | | The SSNA tool opens in a new tab | YES | | |
| Non-Functional Eval | uation | | | | |
| Dim.A (Effectiveness u | sefulness to the network/ | company) | | Total | 3.0 |
| Ref # Question | | | | Answe | er (0-4) |
| A1 It is easy to | understand the objective | e and benefit of the service to my organization/network. | | | 3 |
| | | rtant / useful for the company/network. The service creates value | o for my | | <u> </u> |
| | | rtant / userul for the company/network. The service creates valu | e for ffly | | |
| company &r | etwork, for example by | | | | |
| - saving cos | ts | | | | |
| - increasing | income | | | | |
| - saving time | e, accelerating processes | S | | | |
| A2 - decreasing | - decreasing risks - improving quality | | | | 3 |
| - improving | | | | | |
| - sharing info | | | | | |
| - attracting of | | | | | |
| | - boosting learning and innovation | | | | |
| | networking with other or | rganizations | | | |
| | | siness objectives / perform the tasks with the service. | | | 3 |
| What could | <u> </u> | nore value of the tool/service? | | • | |
| A4 | | | | | |
| Dim.B (Efficiency - perfo | rmance of the service) | | | Total | 2.6 |
| | | | | | 3.6 er (0-4) |
| \ - | d recourses as a side of t | applies the phinatism with the parties are second in the | | | |
| | - | achieve the objectives with the service are reasonable/moderate | • | | 3 |
| | runs fast enough. | | | | 4 |
| B3 The service | The service does not require too many steps to achieve the result. | | | | 4 |
| B4 All the functi | | | | | 3 |
| B5 The service | The service structure allows flexible & fast performance of the tasks. | | | | 4 |
| B6 What could be improved to make more value of the tool/service? | | | | | |
| Dim.C (Understandability/simplicity) Total 2.7 | | | | | |
| Ref# Question | | | | | |
| }p | | | | | |
| | | , | | | |
| | The concepts are understandable for my organization and in line with TREASURE terminology | | | | 2 |
| | The service offers sufficient guidance | | | | 2 |
| ('.4 | | nderstandable. The look and feel is self explanatory and follows t | he | | 3 |
| TREASURE | style. | | | Ļ | |
| | | | | | |

| | | 6.0 | | | | |
|-------------|---|----------------|-------|--------|--|--|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purp | ose of the | : | 3 | | |
| | actions required. | L - 4 :- | | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w | nat is | 3 | 3 | | |
| | required for input. | | | | | |
| C7 | The output of the service is clear and understandable. | | | 3 | | |
| C8 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| Dim.D (Sati | sfaction & Attractiveness) | | Total | 3.4 | | |
| Ref# | Question | . | Answe | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statu | s and starting | , | 4 | | |
| DZ | again. | | | T | | |
| D3 | The mental workload when using the service is low. | | ; | 3 | | |
| D4 | The service rewards the user also personally | | 3 | | | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | | |
| | What could be improved to make more value of the tool/service? | • | | | | |
| D6 | | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | 2.8 | | |
| Ref# | Question | | Answe | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | | |
| E3 | · | | | 3 | | |
| | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 2 | | |
| E4 | The service offers sufficient training support. | | | 2 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| | | | = | | | |
| | preparation & maintenance) | <u> </u> | Total | 2.9 | | |
| Ref# | Question | <u>-</u> | Answe | | | |
| F1 | The take-up of the service does not require high preparation. | | | 3 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 3 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily r | nade | 5 | 3 | | |
| | available for the service. | | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 3 | | |
| F5 | The service can be easily shared in the network. | | 3 | | | |
| F6 | The service does not require specific knowledge from the users. | | 2 | | | |
| F7 | The service is easy to take up also for SMEs. | | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | | 3 | | |
| F9 | The service does not require high maintenance. | | - | 3 | | |
| | What could be improved to make more value of the tool/service? | | | | | |
| F10 | , | | | | | |
| Dim.G (Suit | tability to network/collaborative environment) | | Total | 3.3 | | |
| Ref# | Question | | Answe | | | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | | |
| G2 G3 | The service takes into account safety and security. | | | 3 | | |
| | · | | | | | |
| G4 | G4 The service usage does not require high negotiation or complex agreements in the network. 3 | | | | | |
| Results A | Assessment | - | | | | |
| Functional | 11111 1 1 | | | | | |
| | | | TSS R | esults | | |
| TSS Succ | nec . | | 100 K | | | |
| | | | | 11 | | |
| TSS Partia | II . | <u> </u> | | 0 | | |
| TSS Fail | | | | 0 | | |
| | | | | | | |





| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 2.7 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 2.8 | | | |
| Dim.F (Use preparation & maintenance) | 2.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.1 | | | |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform | |
|--|---|---------------------|---|--|
| Actors involved Mar Villacampa (SEAT, S.A.) (Product Environmental Affairs) | | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | |

Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard

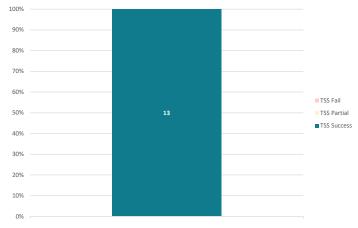
- Access the TREASURE Circularity Web Platform.
 Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- Click the "OPEN ECO" button in the "Eco-Design Module" card.
 Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- Click the "Details" button above the corresponding chart.
 Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity: 5. Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)

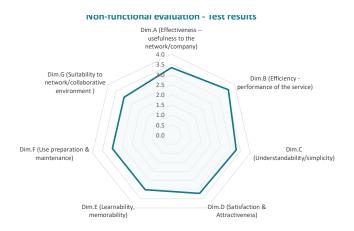
5. Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| J. Navigate | Success 13 | TSS _{partial} 0 | TSS _{fail} 0 | | | |
|---|--|---|-----------------------|---------|----------|--|
| Functionali | 3000033 | Expected Results | Passed | Remarks | U | |
| Access to the Circularity Web Platform | | Circularity Web Platform shows login page | YES | remarks | | |
| Login to the Platform | | User successfully logged in | YES | | | |
| | cted to home page | Home page correctly opened | YES | | | |
| | combimeter" car part | List of relevant car parts shows up | YES | | | |
| | combineter car part | Modules selection page is shown for the selected component | YES | | | |
| | PEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | YES | | | |
| | the "By weight" sub-section of the "Top 5 | "By weight" sub-section of the "Top 5 metals" section is present and | TES | | | |
| metals" sect | tion | has a "Details" button above the corresponding stacked bar chart | YES | | | |
| stacked bar | | "Metals by weight" page is correctly shown | | | | |
| next to "Sho | | Metals table correctly displays all the relevant information accounting for the user selection | YES | | | |
| next to "Ass | ering method from the dropdown menu | Metals table correctly displays all the relevant information accounting for the user selection | YES | | | |
| | "Metals by weight" table | Metals table correctly displays all the relevant information for the selected filtering methods | YES | | | |
| | nouse over the info icon next to the "Share al weight", "Supply risk" and "SMI" table s | A tooltip explaining the table column title meaning appears | YES | | | |
| Press the "E | xport" button | Data are exported successfully in ".xlsx" format, following the applied filters | YES | | | |
| | ctional Evaluation | | | | | |
| - | ctiveness usefulness to the network/c | ompany) | | Total | 3.3 | |
| Ref# | Question | | | Answe | er (0-4) | |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | 1 | |
| A2 | The outcome of the service is important / useful for the company/network. The service creates value company & network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations | | | | 3 | |
| A3 | | iness objectives / perform the tasks with the service. | | 3 | 3 | |
| | What could be improved to make m | ore value of the tool/service? | | | | |
| A4 | · | | | | | |
| Dim.B (Effic | ciency - performance of the service) | | | Total | 3.6 | |
| | Question | | | Answe | | |
| B1 | | chieve the objectives with the service are reasonable/moderate. | | | | |
| B2 | The service runs fast enough. | office the objectives with the service are reasonable/moderate. | | 4 | | |
| B3 | Ÿ | | | | | |
| B3 B4 | | | | 2 | | |
| | 7 1 7 | | | | | |
| B6 | B5 The service structure allows flexible & fast performance of the tasks. What could be improved to make more value of the tool/service? | | | | | |
| | Dim.C (Understandability/simplicity) Total 3.3 | | | | | |
| Ref# | Question | | | Answe | | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | Allswe | | |
| C2 | | | | | | |
| C2 | The concepts are understandable for The service offers sufficient guidance | | | | | |
| The responses to user actions are understandable. The | | derstandable. The look and feel is self explanatory and follows the | ne | 2 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purp | | | 3 | 2 | |
| <u> </u> | actions required. The service is simple enough for practical use. The tasks do not look complex to perform. It is clear with | | | | - | |
| C6 | required for input. | | | 3 | | |
| C7 | The output of the service is clear and | | | | + | |
| Co | What could be improved to make more value of the tool/service? | | | | | |

| 00 | | | | | |
|------------|---|-------------|-------|--------------|-----|
| Dim.D (Sat | tisfaction & Attractiveness) | | Total | | 3.2 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta | atus and | | 3 | |
| | starting again. | | | | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 D5 | The service rewards the user also personally | | | 4 | |
| DЭ | I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | | 4 | |
| D6 | What could be improved to make more value or the tool/service: | | | | |
| Dim.E (Lea | arnability, memorability) | | Total | | 3.0 |
| Ref# | Question | - i | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | <u>_</u> | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | | 3 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| EO | | | | | |
| im.F (Use | preparation & maintenance) | | Total | | 3.0 |
| lef# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 3 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 3 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 3 | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 3 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 3 | | |
| F9 | The service does not require high maintenance. | | | 3 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| im.G (Sui | Itability to network/collaborative environment) | | Total | | 3.0 |
| Ref# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 3 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | |
| G3 | The service takes into account safety and security. | | | 3 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 3 | |
| esults / | Assessment | | | | |
| unctional | Dimension | | | | |
| | | | | TSS Results | |
| TSS Succ | cess | | | | |
| SS Partia | | | | | |



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | |
| Dim.B (Efficiency - performance of the service) | 3.6 | | | |
| Dim.C (Understandability/simplicity) | 3.3 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.2 | | | |
| Dim.E (Learnability, memorability) | 3.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.0 | | | |
| | Total | | | |
| | 3.2 | | | |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_UT_01 Components invo | | TREASURE Circularity Web Platform |
|---|-------------------------------------|-------------------------------|---------------|--|
| | I Actors involved I Contact Point I | | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| г | Chart Danariutian | | | |

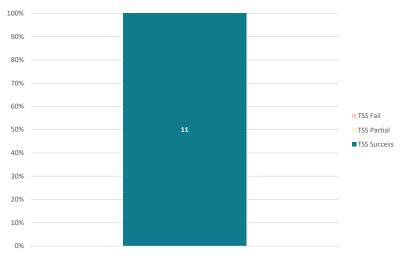
Short Description Visualize basic recycling information about a car part in the Recyclability Dashboard

Test Script

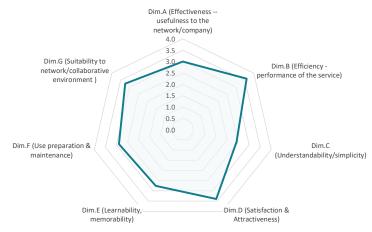
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | | ectly reported in its dedicated card and is displayed in the app | opriate torria | | | |
|---|--|--|----------------|---------------------|--------------|-----|
| TS | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | | 0 |
| Functional | ities | Expected Results | Passed | Remarks | | |
| Access to t | he Circularity Web Platform | Circularity Web Platform shows login page | YES | | | |
| Login to the | e Platform | User successfully logged in | YES | | | |
| User redire | cted to home page | Home page correctly opened | YES | | | |
| Search for | "combimeter" car part | List of relevant car parts shows up | YES | | | |
| Select com | ponent to visualize | Modules selection page is shown for the selected component | YES | | | |
| | DPEN REC" button in the "Disassemblability | Recyclability dashboard is shown for the selected component | | | | |
| Module" ca | - 1 | Theory stability address at a constitution and constitution and | YES | | | |
| | nponent overall stats section | All relevant information for the desired section is displayed | YES | | | |
| | otimization objective of recycling" section | All relevant recycling optimization objectives is displayed | 120 | | | |
| ,,,,,,,,,, | annia and a special control of the special co | 7 in roto tank rooyoming optimization objectives to diopidy su | YES | | | |
| Assess "Ge | eneral composition build-up" pie chart | All relevant information for the desired section is displayed | | | | |
| section | moral composition band up pic chart | 7 in relevant information for the addition account to display su | YES | | | |
| | cycling rates" section | All relevant information for the desired section is displayed with | | | | |
| | -,g | respect to the current recyclability level | YES | | | |
| Select a di | fferent recycling level using the dropdown | The recycling rates and processing routes change accordingly | _ | | | |
| | e top of the section | The recycling rates and processing routes change accordingly | YES | | | |
| | "Individual recycling rates" sub-section | All relevant information for the desired sub-section is displayed with | 1 | | | |
| , 100000 1110 | marriada recycling rates cas section | respect to the current recyclability level and processing route | YES | | | |
| Salact a dit | fferent processing route using the | The individual recycling rates flower chart updates accordingly | | | | |
| | menu next to the "Details" button. | The individual recycling rates nower chart updates accordingly | YES | | | |
| | edback for recyclers" section | All relevant information for the desired section is displayed | 1 | | | |
| A33633 1 6 | edback for recyclers section | All relevant information for the desired section is displayed | YES | | | |
| Proce the " | Add feedback" button | The add feedback popup appears | 1 | | | |
| 1 1033 1110 | Add leedback button | тпе аси теесраск рорир арреата | YES | | | |
| Insert some | e feedback text, then press the "Add | The feedback is correctly inserted into the feedbacks table | _ | | | |
| feedback" | | The resultation of the state of | YES | | | |
| | ctional Evaluation | | | | | |
| | ectiveness usefulness to the network/co | ompany) | _ | Total | | 3.0 |
| <u> </u> | | ompany) | | T Total | A | 3.0 |
| Ref# | Question | | | | Answer (0-4) | |
| A1 | | and benefit of the service to my organization/network. | | | 3 | |
| | | tant / useful for the company/network. The service creates value | ie for my | | | |
| | company &network, for example by | | | | | |
| | - saving costs | | | | | |
| | - increasing income | | | | | |
| | - saving time, accelerating processes | | | | | |
| A2 | decreasing risks | | | | 3 | |
| | - improving quality | | | | | |
| | - sharing information | | | | | |
| | - attracting customers | | | | | |
| | - boosting learning and innovation | | | | | |
| | - supporting networking with other org | panizations | | | | |
| A3 | | ness objectives / perform the tasks with the service. | | | 3 | |
| | What could be improved to make m | · · | | | | |
| A4 | | | | | | |
| D: D /E# | | | | T-4-1 | | |
| <u> </u> | ciency - performance of the service) | | | Total | | 3.6 |
| Ref# | Question | | | | Answer (0-4) | |
| B1 | The time and resources required to a | chieve the objectives with the service are reasonable/moderate | | | 3 | |
| B2 | The service runs fast enough. | | | | 4 | |
| B3 The service does not require too many steps to achieve the result. | | | | | 4 | |
| B4 All the functions are beneficial for my company/ network. | | | | 3 | | |
| B5 The service structure allows flexible & fast performance of the tasks. | | | | 4 | | |
| - 50 | What could be improved to make m | , | | · | · · | |
| В6 | what could be improved to make m | ore value of the tookselvice: | | | | |
| | <u> </u> | | | | | |
| <u> </u> | derstandability/simplicity) | | | Total | | 2.4 |
| Ref# | Question | | | <u>L</u> | Answer (0-4) | |
| C1 | The service structure and logic is easi | y and self-clear to understand and recognizable. | | T | 3 | |
| C2 | · · | my organization and in line with TREASURE terminology | | | 2 | |
| C3 | The service offers sufficient guidance | , - 3 | | | 2 | |
| | Ü | derstandable. The look and feel is self explanatory and follows | he | 1 | | |
| C4 | TREASURE style | acronalidable. The look and reer to bell explanately and follows | | | 2 | |
| | | | | | | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the p | urnoso of the | | | | |
|-------------|--|-------------------|-------------|-------------------|---------|--|
| C5 | actions required. | urpose of the | | 3 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clea | r what is | | 2 | | |
| C7 | required for input. The output of the service is clear and understandable. | | | 3 | | |
| | What could be improved to make more value of the tool/service? | | | <u> </u> | | |
| C8 | What could be improved to make more value of the tookservice: | | | | | |
| Dim.D (Sati | I sfaction & Attractiveness) | | Total | | 3.4 | |
| Ref# | Question | | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the st again. | atus and starting | | 4 | | |
| D3 | The mental workload when using the service is low. | | 3 | | | |
| D4 | The service rewards the user also personally | | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | | |
| | What could be improved to make more value of the tool/service? | | | | | |
| D6 | · | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 2.8 | |
| Ref# | Question | | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 3 | | | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | | |
| E4 | The service offers sufficient training support. | | | 2 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 2.9 | |
| Ref# | Question | | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 3 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 3 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ily made | 3 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | | |
| F5 | The service can be easily shared in the network. | | 3 | | | |
| F6 | The service does not require specific knowledge from the users. | | 2 | | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | | |
| F8 | The service does not require extensive change of business processes. | | | 3 | | |
| F9 | The service does not require high maintenance. | | | 3 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| <u> </u> | tability to network/collaborative environment) | | Total | | 3.3 | |
| | Question The service supports collaboration and interoperability for my network. | - | | Answer (0-4) 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | | |
| G3 | The service takes into account safety and security. | | 3 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 3 | | | |
| Results A | Assessment | | | | | |
| Functional | Dimension | | | | | |
| TSS Succ | ess | | TSS Results | | | |
| TSS Partia | | | | | 0 | |
| , | | | | | | |
| TSS Fail | | | | | n | |



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |
| Dim.C (Understandability/simplicity) | 2.4 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 2.8 |
| Dim.F (Use preparation & maintenance) | 2.9 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.0 |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | | | |
|--|---|---------------------|--|--|--|--|
| Actors involved | Actors involved Mar Villacampa (SEAT, S.A.) Contact Point (Product Environmental Affairs) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Assess specific information about individual recycling rates for a car part in the Recyclability Deshboard | | | | | | |

Short Description Assess specific information about individual recycling rates for a car part in the Recyclability Dashboar

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.
- 6. Click the "Details" button net to the recycling routes dropdown menu.

The output of the service is clear and understandable.

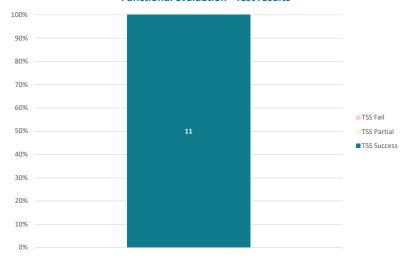
What could be improved to make more value of the tool/service?

7. Assess that all the recycling rates for the selected recycling level and recycling route are present and correct.

| | | cted recycling level and recycling route are present and correct. | | | |
|--|--|--|-------------|---------------------|-----------|
| TS | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functional | lities | Expected Results | Passed | Remarks | |
| Access to t | the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the | e Platform | User successfully logged in | YES | | |
| User redire | ected to home page | Home page correctly opened | YES | | |
| | "combimeter" car part | List of relevant car parts shows up | YES | | |
| | ponent to visualize | Modules selection page is shown for the selected component | YES | | |
| | OPEN REC" button in the "Recyclability | Recyclability dashboard is shown for the selected component | + | | |
| | | | YES | | |
| | o the "Individual recycling rates" sub- the "Recycling rates" section | "Individual recycling rates" sub-section of the "Recycling rates" section is present and has a "Details" button next to the recycling routes dropdown menu | YES | | |
| Press the " | Details" button next to the recycling routes menu | "Individual recycling rates" page is correctly shown | YES | | |
| Select a re | cyclability level from the top-right | Recycling rates table correctly displays all the relevant information accounting for the user selection | YES | | |
| | | · · | | | |
| menu on th | | Recycling rates table correctly displays all the relevant information accounting for the user selection | YES | | |
| Assess the | "Rates by recycling route" table | Recycling rates table correctly displays all the relevant information for the selected recyclability level and recycling route | YES | | |
| Non-Fun | nctional Evaluation | | | | |
| Dim.A (Eff | ectiveness usefulness to the network/c | ompany) | | Total | 3.0 |
| Ref# | Question | V- 7/ | | | ver (0-4) |
| A1 | | e and benefit of the service to my organization/network. | | | 3 |
| AI | | rtant / useful for the company/network. The service creates valu e | e for my | | <u> </u> |
| | company &network, for example by | tant / userul for the company/network. The service creates value | e for fifty | | |
| | - saving costs | | | | |
| | | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | 0 |
| A2 | - decreasing risks | | | | 3 |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| | - supporting networking with other or | | | | |
| A3 | It is easy to achieve the planned busi | iness objectives / perform the tasks with the service. | | | 3 |
| A4 | What could be improved to make m | ore value of the tool/service? | | | |
| A4 | | | | | |
| Dim.B (Effi | iciency - performance of the service) | | | Total | 3.6 |
| Ref# | IQuestion | | | | ver (0-4) |
| \———— | | chieve the objectives with the service are reasonable/moderate. | | | 3 |
| B1 | | chieve the objectives with the service are reasonable/moderate. | • | | |
| B2 | The service runs fast enough. | | | | 4 |
| B3 | The service does not require too man | | | | 4 |
| B4 | All the functions are beneficial for my | ' ' | | | 3 |
| B5 | The service structure allows flexible & | k fast performance of the tasks. | | | 4 |
| В6 | What could be improved to make m | ore value of the tool/service? | | | |
| Dim C (U- | derstandability/simplicity) | | | Total | 0.7 |
| <u> </u> | | | | _ | 2.7 |
| Ref# | Question | | | Answ | ver (0-4) |
| C1 The service structure and logic is easy and self-clear to understand and recognizable. | | | | | 3 |
| C2 The concepts are understandable for my organization and in line with TREASURE terminology | | | | | 2 |
| C3 | The service offers sufficient guidance | ; | | | 3 |
| C4 | The responses to user actions are una TREASURE style. | derstandable. The look and feel is self explanatory and follows the | he | | 2 |
| C5 | The support to business processes / t actions required. | tasks is clear. The user can understand his/her role and the purp | oose of the | | 3 |
| C6 | · | ctical use. The tasks do not look complex to perform. It is clear w | vhat is | | 3 |
| 07 | I-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | 2 |

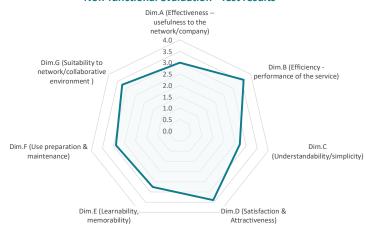
3

| 00 | | | | | | |
|------------|--|------------------|--------------|--|--|--|
| Dim.D (Sat | isfaction & Attractiveness) | Total | 3.4 | | | |
| Ref# | Question | | Answer (0-4) | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting | ng | 4 | | | |
| DZ | again. | | - | | | |
| D3 | The mental workload when using the service is low. | | 3 | | | |
| D4 | The service rewards the user also personally | | 3 | | | |
| D5 | I could recommend the service for other people/organizations. | | 3 | | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| | rnability, memorability) | Total | 2.8 | | | |
| Ref# | Question | - | Answer (0-4) | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 3 | | | |
| E2 | It is easy to learn new features/ functionalities. | | 3 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | | |
| E4 | The service offers sufficient training support. | | 2 | | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| | preparation & maintenance) | Total | 2.9 | | | |
| Ref# | Question | - - | Answer (0-4) | | | |
| F1 | The take-up of the service does not require high preparation. | | 3 | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 3 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made | | 3 | | | |
| Ε4 | available for the service. | 3 | | | | |
| F4 F5 | The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | 3 | | | | |
| F6 | The service does not require specific knowledge from the users. | 2 | | | | |
| F7 | The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | 3 | | | | |
| F8 | The service does not require extensive change of business processes. | 3 3 | | | | |
| F9 | The service does not require extensive change of business processes. The service does not require high maintenance. | | 3 | | | |
| | What could be improved to make more value of the tool/service? | | 3 | | | |
| F10 | Triat could be improved to make more value or the tool, sorvice. | | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | Total | 3.3 | | | |
| Ref# | Question | i | Answer (0-4) | | | |
| G1 | The service supports collaboration and interoperability for my network. | - - | 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | | |
| G3 | The service takes into account safety and security. | | 3 | | | |
| G4 | | | 3 | | | |
| | The service usage does not require high negotiation or complex agreements in the network. | | <u> </u> | | | |
| | Assessment | | | | | |
| Functional | Dimension | | | | | |
| | | | TSS Results | | | |
| TSS Succ | ess | | | | | |
| TSS Partia | al | | | | | |
| TSS Fail | | | | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 |
| Dim.B (Efficiency - performance of the service) | 3.6 |

| Dim.C (Understandability/simplicity) | 2.7 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 2.8 |
| Dim.F (Use preparation & maintenance) | 2.9 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.1 |





TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Test Case References TREASURE Circularity Web Platform

| 1001 0000 12 | | Components in corea | The tooks offered the first the firs |
|-----------------|-----------------------|---------------------|--|
| Actors involved | Stephan Harkema (TNO) | Contact Point | Business: Veronica Antonello (veronica.antonello@bxtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |

Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard

Test Script

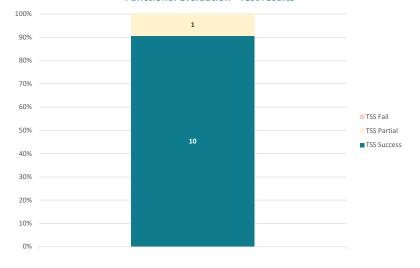
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.

The output of the service is clear and understandable.

- 5. Click the "Dis advisory" link on the top navbar.6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

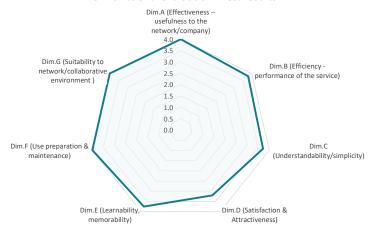
| 6. Assess th | hat every infor | mation ex | spected is corr | ectly reported in its de | dicated care | d and is disp | ayed in the app | ropriate format | <u> </u> | | | | |
|----------------|---|-------------|-----------------|-----------------------------------|-------------------|------------------|---------------------|-----------------|-----------------------------------|-----------------------|--------------------------|--|--|
| TSS | success | 10 | | TSS _{partial} | | 1 | | | TSS _{fail} | | 0 | | |
| Functionalit | | | • | Expected Results | | | | Passed | Remarks | | | | |
| | e Circularity We | b Platform | | Circularity Web Platform | shows login | page | | YES | | | | | |
| Login to the | , | | | User successfully logged | - | | | YES | i | | | | |
| | ted to home pag | e | | Home page correctly op | | | | YES | i | | | | |
| | combimeter" car | | | List of relevant car parts | | | | YES | | | | | |
| | onent to visualiz | | | Modules selection page | | the selected o | omponent | YES | | | | | |
| | PEN DIS" button | | sassemblability | Disassembly dashboard | | | | | | | | | |
| Module" card | | iii tile Di | sassemblability | Disassembly dashboard | 13 3HOWH IOI | trie selected c | Simponent | YES | | | | | |
| | is advisory" link | on the top | navbar. | Disassembly advisor das | shboard corre | ectly opened | | YES | | | | | |
| | ssess "Electrical and electronic equipment" sub | | | All relevant information f | | | s displayed | | | | | | |
| | Assess "Electrical and electronic equipment" sub- section of the "Metals to be extracted" section Assess time and cost metrics below the metals table | | | , iii i cievani iiiioiiiiatioii i | or are desire | a 5ab-3664011 | o displayed | YES | | | | | |
| | | | | All relevant information f | or the desire | d sub-section i | s displayed | | | | | | |
| | | | | | | | | YES | | | | | |
| Adjust the "D | Disassembly cos | per hour | ' value | The "Estimated disassen | nbly cost" me | tric is adjusted | daccordingly | | any number is immediately finaliz | zed I cannot enter a | anything above 9 which | | |
| , tajaot ino 2 | 2.000000111213 | . por mour | value | The Edimard diddeon | | ino io adjaotot | . accordingly | PARTIAL | automatically becomes 9.0. | ed. I carmot criter t | anything above of willon | | |
| Assess "The | ermodynamic rari | ty VS Rev | enue" suh | All relevant information f | or the desire | d sub-section i | s displayed | | | | | | |
| | ne "Metals to be | | | 7 an reie vant information i | or the desire | a sub scotion | o displayed | YES | | | | | |
| | Thermodynamic | | | The lower limits for the " | Thermodyna | mic rarity indic | ator" and | | any number is immediately finaliz | zed Loannot enter a | anything above 9 which | | |
| | for revenue" me | | o minic and | "Revenue" metrics are a | | | | PARTIAL | automatically becomes 9.0. | Lea. I carmot enter a | anything above 5. Which | | |
| | he mouse over a | | ho chart | A tooltip with specific me | - | | | VEC | automatically becomes 5.5. | | | | |
| | | | ile Cilait | A roomb with specific me | Julua duuul li | ne serecteu Me | otal 19 9110WII | YES | | | | | |
| | ctional Evalu | | | | | | | _ | | | | | |
| | ctiveness use | tulness to | the network/c | ompany) | | | | | Total - | | 4.0 | | |
| Ref# | Question | | | . | | | | | L | Answer (0-4) | | | |
| A1 | It is easy to ur | derstan | d the objective | and benefit of the sen | vice to my o | rganization/r | etwork. | | | 4 | | | |
| | The outcome | of the se | rvice is impor | tant / useful for the cor | npany/netw | ork. The serv | rice creates val | ue for my | | | | | |
| 1 1 | company &network, for example by | | | | | | | | | | | | |
| 1 1 | - saving costs | | | | | | | | | | | | |
| 1 1 | - increasing in | | | | | | | | | | | | |
| 1 1 | - saving time, accelerating processes | | | | | | | | | | | | |
| A2 | - decreasing risks | | | | | | | 4 | | | | | |
| | - improving qu | | | | | | | | | | | | |
| 1 1 | - sharing infor | | | | | | | | | | | | |
| 1 1 | - attracting customers | | | | | | | | | | | | |
| 1 1 | - boosting lear | | innovation | | | | | | | | | | |
| 1 1 | - | - | with other or | nanizations | | | | | | | | | |
| A3 | | | | ness objectives / perfo | rm the tasks | s with the ser | vice | | | | | | |
| | | | | ore value of the tool/s | | 3 WILL LIC SCI | vicc. | | | | | | |
| A4 | Wilat Could D | Billibios | | | | / | 6 1 6 10 | \ 1 | c 1 A1 : 1 | | | | |
| | | | | t of explanation of ther | modynamic | rarity (or sou | irce for definition | n) and source | of values. Also: revenue via wh | at process? | | | |
| | iency - perform | ance of the | ne service) | | | | | | Total | | 3.8 | | |
| Ref# | Question | | | | | | | | L | Answer (0-4) | | | |
| B1 | The time and i | esources | required to a | chieve the objectives w | vith the serv | ice are reaso | nable/moderate | e | <u> </u> | 4 | | | |
| B2 | The service ru | ns fast er | nough. | | | | | | | 4 | | | |
| | | | | y steps to achieve the | result. | | | | i | 4 | | | |
| | | | • | company/ network. | | | | | | 3 | | | |
| | | | | | an tool:- | | | | | | | | |
| | | | | fast performance of the | | | | | <u> </u> | 4 | | | |
| В6 | what could b | | | ore value of the tool/s | | | | | | | | | |
| | | | | revenu is fixed, a usefu | I range (with | h source) mi | ght be useful. S | ame with other | fields: I cannot enter anything I | longer than a sing | ıle digit. | | |
| Dim.C (Unde | erstandability/s | implicity) | | | | | | | Total | | 3.7 | | |
| Ref# | Question | | | | | | | | T . | Answer (0-4) | | | |
| \ | | ructure a | nd logic is eas | y and self-clear to und | erstand and | recognizable | | | | 4 | | | |
| | | | | my organization and in | | | | | | 3 | | | |
| | | | | | i iiiic willi I I | NEAGONE 16 | milology | | - | 4 | | | |
| | C3 The service offers sufficient guidance The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | | | | ļ | 4 | | | | |
| | | | actions are un | derstandable. The look | and feel is | seit explanat | ory and follows | tne | 1 | 4 | | | |
| | TREASURE st | | | | | | | | ļ | | | | |
| | | | s processes / t | asks is clear. The user | can unders | tand his/her | role and the pu | pose of the | 1 | 4 | | | |
| | actions require | | | | | | | | | т | | | |
| CE | | | nough for prac | tical use. The tasks do | not look co | mplex to per | form. It is clear | what is | | 4 | | | |
| - 00 | required for in | put. | | | | | | | | 7 | | | |
| C7 | The custoust of | ho corvic | o ic aloar and | undoretandable | | | | | | 2 | | | |

| C8 | What could be improved to make more value of the tool/service? | | | | | | |
|-----------|---|------------------------|---------------------------|------------------------|-----|--|--|
| | or revenu is fixed, a useful range (with source) might be useful. Same with other fields: I cannot ento | er anything longer th | | dynamic rarity value I | | | |
| • | isfaction & Attractiveness) | | Total | | 3.2 | | |
| ef# | Question | <u>_</u> <u> </u> | | Answer (0-4) | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stagain. | atus and starting | 2 | | | | |
| D3 | The mental workload when using the service is low. | | | 4 | | | |
| D4 | The service rewards the user also personally | | 2 | | | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | | |
| סט | Changes were not stored. Intentional? 2nd | d point: How is the re | ward personal? | | | | |
| im.E (Lea | rnability, memorability) | | Total | | 3.8 | | |
| ef# | Question | | | Answer (0-4) | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | | |
| E4 | The service offers sufficient training support. | i | | 3 | | | |
| | What could be improved to make more value of the tool/service? | | | | | | |
| E5 | Thermodynamic rarity value limit: not clear to user why to | modify this. Some re | fs or sources could be pr | rovided. | | | |
| im.F (Use | preparation & maintenance) | | Total | | 4.0 | | |
| ef# | Question | 1 | | Answer (0-4) | | | |
| F1 | The take-up of the service does not require high preparation. | | | | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | | | |
| | The data needed by the service exist in my company/network in the proper format and can be easi | v made | | | | | |
| F3 | available for the service. | ´ | 4 | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | | |
| F9 | The service does not require high maintenance. | | | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | • | | | | | |
| im.G (Sui | Lability to network/collaborative environment) | | Total | | 4.0 | | |
| ef# | Question | | | Answer (0-4) | | | |
| G1 | The service supports collaboration and interoperability for my network. | | | | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | | | | |
| G3 | The service takes into account safety and security. | | | 4 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | | | |
| esults / | Assessment | | | | | | |
| unctional | Dimension | | | | | | |
| SS Succ | ess | - | | TSS Results | | | |
| SS Partia | | | | | | | |
| SS Fail | | | | | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |

| Dim.B (Efficiency - performance of the service) | 3.8 |
|--|-------|
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.2 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-----------------------|---------------------|--|
| Actors involved | Stephan Harkema (TNO) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description Visualize advisory information about a car part in the Recyclability Advisory Dashboard | | Dashboard | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combineter" component and select the first search result.

 4. Click the "OPEN REC" button in the "Recyclability Module" card.

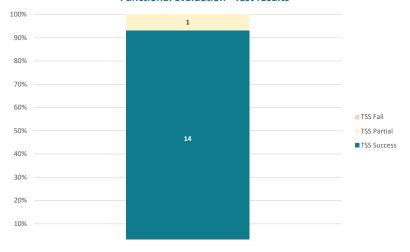
 5. Click the "Rec advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

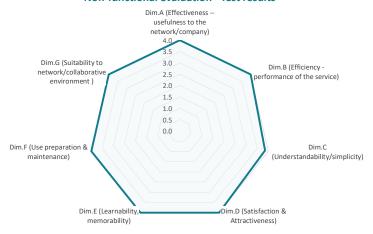
| 6. Assess | S _{success} 14 | TSS _{partial} 1 | | TSS _{fail} | 0 |
|---|---|---|-----------------|---|---|
| Functional | | Expected Results | Passed | Remarks | U |
| | the Circularity Web Platform | Circularity Web Platform shows login page | YES | itemarks | |
| Login to the | | User successfully logged in | | | |
| <u> </u> | | , | | | |
| User redirected to home page Search for "combimeter" car part | | Home page correctly opened | YES | | |
| | • | List of relevant car parts shows up Modules selection page is shown for the selected component | YES YES | | |
| | nponent to visualize | | YES | | |
| | DPEN REC" button in the "Recyclability | Recyclability dashboard is shown for the selected component | | | |
| $\overline{}$ | Rec advisory" link on the top navbar. | Recyclability advisor dashboard correctly opened | YES | | |
| | recycling route table in the "Determine bination of disassembly path and recycling | All relevant information for the desired table is displayed | | | |
| | implement (from component to material)" | | YES | | |
| section | , | | | | |
| Press the ir | nfo button at the right of one recycling | The "DIS & REC route X" popup appears | | | |
| route | , , | | YES | | |
| Assess the | materials in the "DIS & REC route X" table | All relevant information for the desired table is displayed | i | | |
| | | | YES | | |
| Assess the | revenue indicator | All relevant information for the desired section is displayed | | | |
| | | | YES | | |
| Adjust the " | "Total cost" value | The "Profit" indicator updates accordingly | l | | |
| - | | | YES | no value at profit | |
| | | | | | |
| Press the " | Close" ("X") button | The "DIS & REC route X" popup closes | YES | | |
| A 11 | 10 1: 1: / / | | | | |
| Assess the section | "Graphical integration approach" sub- | All relevant information for the desired section is displayed | PARTIAL | Graphic is cut off when zooming in. Increa | se window size? |
| | the mouse over a recycling route in the | A tooltip with specific metrics about the selected recycling route is | - | | |
| chart | the mouse over a recycling route in the | shown | YES | Medium risk: (-1)? Why the (-1)? | |
| | nctional Evaluation | | | | |
| | ectiveness usefulness to the network/c | ompany) | | Total | 4.0 |
| | Question | | | | er (0-4) |
| A1 | | and benefit of the service to my organization/network. | | | 4 |
| -/(1 | | tant / useful for the company/network. The service creates valu | e for my | | • |
| | company &network, for example by | ant, acciding the company, notion in the connecticutes value | •, | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| ۸. | | | | | |
| A2 - decreasing risks | | | | | 4 |
| AZ | · · | | | | 4 |
| AZ | - improving quality | | | | 4 |
| AZ | - improving quality - sharing information | | | | 4 |
| A2 | - improving quality - sharing information - attracting customers | | | | 4 |
| AZ | improving quality sharing information attracting customers boosting learning and innovation | ignizations | | | 4 |
| | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organical contents. | | | | 4 |
| A3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi | ness objectives / perform the tasks with the service. | | | 4 |
| | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organical contents. | ness objectives / perform the tasks with the service. ore value of the tool/service? | e? Or will that | | 4 |
| A3 A4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make me | ness objectives / perform the tasks with the service. | e? Or will that | be captured in a manual? | |
| A3 A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) | ness objectives / perform the tasks with the service. ore value of the tool/service? | e? Or will that | be captured in a manual? | 4.0 |
| A3 A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) [Question] | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source | | be captured in a manual? Total Answ | 4.0 er (0-4) |
| A3 A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to achieve the planned busi The time and resources required to achieve the planned busing the planned business the | ness objectives / perform the tasks with the service. ore value of the tool/service? | | be captured in a manual? Total Answ | 4.0 er (0-4) |
| A3 A4 Dim.B (Effi Ref # B1 B2 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to achieve the planned busi The service runs fast enough. | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source chieve the objectives with the service are reasonable/moderate. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to ach The service does not require too man The service does not require too man | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to ac The service runs fast enough. The service does not require too man All the functions are beneficial for my | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busi What could be improved to make m Iciency - performance of the service) Question The time and resources required to ac The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 |
| A3 A4 Dim.B (Effi B1 B2 B3 B4 B5 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to ac The service runs fast enough. The service does not require too man All the functions are beneficial for my | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to act The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busi What could be improved to make m Iciency - performance of the service) Question The time and resources required to ac The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ | 4.0 er (0-4) 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to act The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ Total Total | 4.0 er (0-4) 4 4 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Uno.) | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Ciency - performance of the service) Question The time and resources required to act The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m derstandability/simplicity) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. tast performance of the tasks. ore value of the tool/service? | | be captured in a manual? Total Answ Total Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Iciency - performance of the service) Question The time and resources required to an The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m Iderstandability/simplicity) Question The service structure and logic is easy | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | be captured in a manual? Total Answ Total Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 9 |
| A3 A4 Dim.B (Effi B1 B2 B3 B4 B5 B6 Dim.C (Une | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m Iciency - performance of the service) Question The time and resources required to an The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make m Iderstandability/simplicity) Question The service structure and logic is easy | ness objectives / perform the tasks with the service. ore value of the tool/service? Info on what the routes mean: reference to source the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. tast performance of the tasks. ore value of the tool/service? y and self-clear to understand and recognizable. my organization and in line with TREASURE terminology | | be captured in a manual? Total Answ Total Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |

| | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | | |
|------------|---|----------------|--|--|--|--|
| C4 | TREASURE style. | 4 | | | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpor actions required. | se of the 4 | | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear who required for input. | at is 4 | | | | |
| C7 | The output of the service is clear and understandable. | 3 | | | | |
| C8 | What could be improved to make more value of the tool/service? | | | | | |
| | Would be useful to understand the | , , | | | | |
| <u> </u> | sfaction & Attractiveness) | Total 4.0 | | | | |
| Ref# D1 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service. | Answer (0-4) 4 | | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. | and starting 4 | | | | |
| D3 | The mental workload when using the service is low. | 4 | | | | |
| D4 | The service rewards the user also personally | 4 | | | | |
| D5 | I could recommend the service for other people/organizations. | 4 | | | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| Dim E /Loo | nability, memorability) | Total 4.0 | | | | |
| Ref # | Question | Answer (0-4) | | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | 4 | | | | |
| E2 | It is easy to learn new features/ functionalities. | 4 | | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | 4 | | | | |
| E4 | The service offers sufficient training support. | 4 | | | | |
| | What could be improved to make more value of the tool/service? | · | | | | |
| E5 | | | | | | |
| Dim.F (Use | preparation & maintenance) | Total 4.0 | | | | |
| Ref# | Question | Answer (0-4) | | | | |
| F1 | The take-up of the service does not require high preparation. | 4 | | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | 4 | | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. | ade 4 | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | 4 | | | | |
| F5 | The service can be easily shared in the network. | 4 | | | | |
| F6 | The service does not require specific knowledge from the users. | 4 | | | | |
| F7 | The service is easy to take up also for SMEs. | 4 | | | | |
| F8 | The service does not require extensive change of business processes. | 4 | | | | |
| F9 | The service does not require high maintenance. | 4 | | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| <u> </u> | ability to network/collaborative environment) | Total 4.0 | | | | |
| Ref# | Question | Answer (0-4) | | | | |
| G1 G2 | The service supports collaboration and interoperability for my network. | 4 4 | | | | |
| G2 G3 | The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | 4 | | | | |
| | , , | | | | | |
| G4 | G4 The service usage does not require high negotiation or complex agreements in the network. | | | | | |
| Results A | ssessment | | | | | |
| Functional | Dimension | | | | | |
| | | TSS Results | | | | |
| TSS Succ | ess | | | | | |
| TSS Partia | | | | | | |
| TSS Fail | | | | | | |
| | | • | | | | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| Г | Test Case ID | CWP ECO ADV UT 01 | Components involved | TREASURE Circularity Web Platform |
|--|-----------------|-----------------------|---------------------|--|
| L | | | Components inverted | THE COILE SHOULDING THE COIL |
| | Actors involved | Stephan Harkema (TNO) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description Visualize advisory information about a car part in the Eco-Design Advisory Dashboard | | Dashboard | | |

Test Script

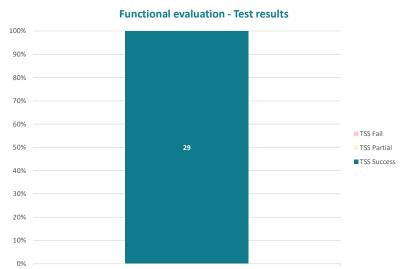
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
 5. Click the "Eco advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} 29 | TSS _{partial} 0 | | TSS _{fail} 0 | |
|---|--|--------|---------------------------------------|--|
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design Module" card | Eco-design dashboard is shown for the selected component | YES | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | 120 | | |
| disassembly and recycling" table in the "Step 1: Preliminary analysis of the reference design" sub- section of the "Reference Design" section | section | YES | | |
| Assess the "Eco-design feedback" table in the "Step 1: Preliminary analysis of the reference design" sub- section of the "Reference Design" section | All the relevant feedback is properly displayed for the desired subsection | YES | | |
| Click the "Generate Guidelines" button in the "Step 2: Generation of specific eco-design guidelines and prioritization" sub-section | "Generate guidelines" popup is shown | YES | | |
| Hover the mouse over the info icon next to the guideline ID | A tooltip with the guideline name appears | YES | | |
| Click the info button next to the number of associated feedbacks for "Guideline 10" | A popup with the list of feedbacks associated to "Guideline 10" appears | YES | | |
| Press the "X" button | The feedbacks popup closes | YES | | |
| Select a "Margin of improvement (MI)" and a "Relevance (R)" for each guideline | The "Level of circularity improvement" indicator corresponding to each guideline is computed | YES | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of the new design supported by the advisory" sub-section appears, showing the guidelines radar-chart | YES | | |
| Assess the guidelines radar chart in the "Step 3: Generation of the new design supported by the advisory" sub-section | All relevant information for the desired section is displayed | YES | | |
| Hover the mouse over a point in the guidelines radar chart | A popup showing the "Level of circularity improvement" indicator appears | YES | | |
| Select a guideline from the "Assessment for" dropdown, at the bottom of the guidelines radar chart | The "Associated feedback" and "Advisory" content in the table below change accordingly | YES | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | |
| Move between the "LCA" and "LCC" tabs below the "OPEN SCENARIOS IN GRETA" button | The scenarios radar chart updates accordingly | YES | | |
| Click the "REFRESH" button on the top right of the "Scenarios comparison" section | The scenarios radar chart and comments section refresh | YES | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | | |
| Hover the mouse over a point in the scenarios radar chart | A tooltip with the category value for the selected scenario appears | YES | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | YES | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | |
| Click the "DOWNLOAD" button at the top right of the "Metal Wheel (MARAS)" section | The metal wheel is exported in ".png" format | YES | better resolution is necessary though | |
| Non-Functional Evaluation Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total 4.0 | |
| Ref # Question | | | Answer (0-4) | |
| | and benefit of the service to my organization/network. | | 4 | |

| | The outcome of the service is important / useful for the company/network. The service creates value for | or my | | |
|--|--|-----------------------|--------------------------|--|
| | company &network, for example by | | | |
| | - saving costs | | | |
| | - increasing income | | | |
| A2 | - saving time, accelerating processes - decreasing risks | | | 4 |
| AZ | - decreasing risks - improving quality | | | 4 |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | |
| | What could be improved to make more value of the tool/service? | • | | |
| A4 | bit more info will help, but that is to be | expected at this stag | e. | |
| Dim.B (Effi | iciency - performance of the service) | <u> </u> | Total | 3.8 |
| Ref# | Question | ! | Answe | er (0-4) |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | | |
| B2 | The service runs fast enough. | | | 4 |
| B3 | The service does not require too many steps to achieve the result. | | | 4 |
| B4 | All the functions are beneficial for my company/ network. | | | 3 |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 |
| | What could be improved to make more value of the tool/service? | | | + |
| B6 | What could be improved to make more value of the tookset vice: | | | |
| Dim C (Un | derstandability/simplicity) | | Total | 4.0 |
| | | | | 4.0 |
| Ref # | Question | | | er (0-4) |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 4 |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | | 4 |
| C3 | The service offers sufficient guidance | | | 4 |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | 4 |
| | TREASURE style. | f 41 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpos actions required. | e of the | | 4 |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what | t io | | |
| C6 | required for input. | 1 15 | | 4 |
| C7 | The output of the service is clear and understandable. | | | 4 |
| - 01 | What could be improved to make more value of the tool/service? | | | т |
| C8 | What could be improved to make more value of the tool/service: | | | |
| Dim D (Sat | Lisfaction & Attractiveness) | | Total | 4.0 |
| Ref# | Question | | | |
| ACI# | | | Anewa | |
| | | | Answe | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | and starting | | er (0-4) 4 |
| | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a | and starting | | |
| D1 D2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. | and starting | | 4 |
| D1 D2 D3 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. | and starting | | 4 4 4 |
| D1 D2 D3 D4 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally | and starting | | 4 4 4 4 |
| D1 D2 D3 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. | and starting | | 4 4 4 |
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| D1 D2 D3 D4 D5 D6 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | | 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | Total | 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trinability, memorability) Question | | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? **Transbility, memorability) Question It is easy to start using the service and to perform the main tasks. | | Total Answ | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Trability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
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| D1 D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Transbility, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | Total Answe | 4.0 4.0 2r (0-4) 4.4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | Total Answe | 4.0 4.0 2r (0-4) 4.4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | Total Answe | 4.0 4.0 2r (0-4) 4.4 |
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| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Transhility, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Perperation & maintenance) Question | | Total Answ Total Answ | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. | | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
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| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Perparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | de | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? Transhility, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | de | Total Answe | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suite Ref # G1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | de | Total Answer | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require thigh maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service is esuitable for heterogeneous users and different networks. | de | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| D1 D2 D3 D4 D5 D6 Dim.E (Lea Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suitane) Ref # G1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. I can keep the control of the service, for example by pausing& continuing, canceling, saving the status a again. The mental workload when using the service is low. The service rewards the user also personally I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily ma available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | de | Total Answ | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 29 |
| TSS Partial | 0 |
| TSS Fail | 0 |



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 4.0 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 4.0 |







TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-----------------|-----------------------|---------------------|--|
| | Actors involved | Stephan Harkema (TNO) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description Visualize hasic dismantling information about a car part in the Disassemblability Dashboard | | hility Dashhoard | | |

Test Script

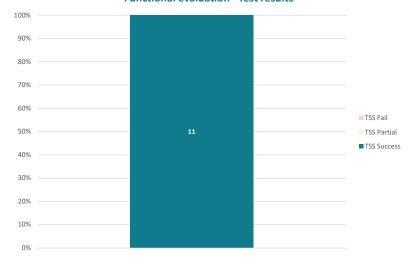
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

actions required.

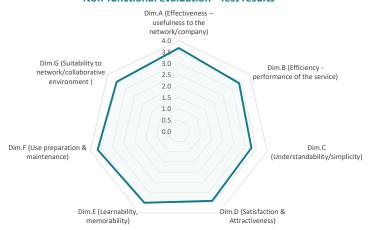
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{succi} | 2225 | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 |
|--------------------------------------|--|---------------------------------------|-----------------|--|---------------------|-------------------|------------|---------------------|-----------|
| Functionalities | .033 | | | Expected Results | | | Passed | Remarks | · |
| Access to the Cir | rcularity Web | Platform | | Circularity Web Platform shows logi | n page | | YES | | |
| Login to the Platf | | | | User successfully logged in | | | YES | | |
| User redirected t | | , | | Home page correctly opened | | | YES | | |
| Search for "comb | | | | List of relevant car parts shows up | | | YES | | |
| Select componer | | | | Modules selection page is shown fo | r the colored con | ananant | | | |
| | | | | | | | YES | | |
| Click the "OPEN | DIS" button i | n the "Disa | assemblability | Disassembly dashboard is shown for | r the selected cor | nponent | YES | | |
| Module" card | | | | | | | | | |
| Assess compone | | | | All relevant information for the desir | | • | YES | | |
| | s composition | n" & "Mate | rial Costs" pie | All relevant information for the desir | ed section is disp | layed | YES | | |
| | harts section | | | | | | | | |
| Assess "Disasser | ssess "Disassembly times (manual)" section All relevant information for the desired section is displayed | | | YES | | | | | |
| Assess "Disasser | mbly metrics" | section | | All relevant information for the desir | ed section is disp | layed | YES | | |
| Insert desired val | lue into hourl | y cost inpu | ut in | The "Disassembly cost (lowerbound | l", "Disassembly c | ost" and | | | |
| "Disassemblabilit | ty metrics" se | ction | | "Disassembly cost (upperbound)" m | etrics adjust their | values | YES | | |
| | | | | accordingly | | | | | |
| Assess "Cobot m | netrics" sectio | n | | All relevant information for the desir | ed section is disp | layed | YES | | |
| Assess "Feedbac | ck for recycle | rs" section | 1 | All relevant information for the desir | ed section is disp | layed | YES | | |
| Select different re | | | | The feedback displayed changes de | | | NE - | | |
| "Disassembly & r | | | | , , , , , , , , , , , , , , , | | | YES | | |
| Press the "Add fe | | | | The add feedback popup appears | | | YES | | |
| Insert some feed | | | ıe "Add | The feedback is correctly inserted f | or the currently se | elected recycling | 120 | | |
| feedback" button | | ni press tri | ie Add | route | or the currently se | siected recycling | YES | | |
| Assess "compone | | n priority | VS | All relevant information for the desir | ed section is dien | laved | | | |
| disassembly time | | in priority | vo | All relevant information for the desir | eu section is disp | layeu | YES | | |
| | Non-Functional Evaluation | | | | | | | | |
| | | | | | | | | T () | 1 |
| Dim.A (Effective | | uiness to | tne network/c | ompany) | | | | Total | 3.7 |
| Ref# Que | estion | | | | | | | Ansv | ver (0-4) |
| A1 It is | easy to und | derstand | the objective | and benefit of the service to my | organization/ne | twork. | | | 4 |
| The | outcome o | of the ser | vice is impor | tant / useful for the company/net | work. The service | e creates value | for my | | |
| com | npany &netv | vork. for e | example by | | | | • | | |
| | ving costs | , , , , , , , , , , , , , , , , , , , | onampio by | | | | | | |
| | creasing inc | ome | | | | | | | |
| | 0 | | | | | | | | |
| | | | ng processes | | | | | | 2 |
| | ecreasing ris | | | | | | | | 3 |
| | proving qua | - | | | | | | | |
| - sh | naring inform | nation | | | | | | | |
| - att | tracting cust | tomers | | | | | | | |
| - bo | oosting learn | ing and i | nnovation | | | | | | |
| - su | pporting ne | tworking | with other org | ganizations | | | | | |
| A3 It is | easy to ach | nieve the | planned busi | ness objectives / perform the tas | ks with the serv | ce. | | | 4 |
| Wha | | | | ore value of the tool/service? | | | | | |
| A4 | | | | | | | | | |
| Dim B (Fffi-i- | no-f | maa -f4 | a complet | | | | | Total | 1 04 |
| Dim.B (Efficienc | | nice of the | e service) | | | | | Total | 3.4 |
| | estion | | | | | | | Ansv | ver (0-4) |
| B1 The | time and re | esources | required to a | chieve the objectives with the ser | vice are reason | able/moderate. | | <u> </u> | 3 |
| B2 The | e service run | s fast en | ough. | | • | | | | 4 |
| - | | | | y steps to achieve the result. | | | | | 3 |
| | | | | , , | | | | | |
| | , , , | | | | | | 4 | | |
| | | | | fast performance of the tasks. | | | | | 3 |
| B6 Wha | What could be improved to make more value of the tool/service? | | | | | | | | |
| D0 | | | | | | | | | |
| Dim.C (Understandability/simplicity) | | | | | | Total | 3.3 | | |
| Ref # Question | | | | | | | ver (0-4) | | |
| \ | | | | | | | Allsv | 3 | |
| | | | | | | | | | |
| | C2 The concepts are understandable for my organization and in line with TREASURE terminology | | | | | | | 4 | |
| | | | ent guidance | | | | | | 3 |
| The | responses | to user a | ctions are un | derstandable. The look and feel is | s self explanator | y and follows th | е | | 3 |
| C4 TRE | EASURE styl | le. | | | • | | | | J |
| The | | | processes / t | asks is clear. The user can unde | rstand his/her ro | le and the purp | ose of the | | 0 |
| C5 | actions required. | | | | | ĺ | 3 | | |

| The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. C7 The output of the service is clear and understandable. C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref# Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally A 9 | 3.4 | | | |
|---|---------|--|--|--|
| C7 The output of the service is clear and understandable. C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Total Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally 4 | 3.4 | | | |
| C8 What could be improved to make more value of the tool/service? Dim.D (Satisfaction & Attractiveness) Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally 4 | 3.4 | | | |
| Dim.D (Satisfaction & Attractiveness) Ref # Question D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally Total Answer (0-4) 3 4 | 3.4 | | | |
| Ref # Question Answer (0-4) D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. 3 D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. 3 D3 The mental workload when using the service is low. 4 D4 The service rewards the user also personally 4 | 3.4 | | | |
| Ref# Question Answer (0-4) D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. 3 D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. 3 D3 The mental workload when using the service is low. 4 D4 The service rewards the user also personally 4 | | | | |
| D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally 4 | | | | |
| D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally 4 | | | | |
| But again. D3 The mental workload when using the service is low. D4 The service rewards the user also personally 4 | | | | |
| D4 The service rewards the user also personally 4 | | | | |
| D4 The service rewards the user also personally 4 | | | | |
| | | | | |
| D5 I could recommend the service for other people/organizations. | | | | |
| What could be improved to make more value of the tool/service? | | | | |
| D6 Interest to make more value of the conservee. | | | | |
| Dim.E (Learnability, memorability) Total | 3.5 | | | |
| Ref # Question Answer (0-4) | | | | |
| E1 It is easy to start using the service and to perform the main tasks. 3 | | | | |
| E2 It is easy to learn new features/ functionalities. 4 | | | | |
| E3 When coming back to an unfinished task, it is easy to remember / identify the actions needed. 3 | | | | |
| E4 The service offers sufficient training support. 4 | | | | |
| What could be improved to make more value of the tool/service? | | | | |
| | | | | |
| Dim.F (Use preparation & maintenance) Total | 3.7 | | | |
| Ref# Question Answer (0-4) | | | | |
| F1 The take-up of the service does not require high preparation. 4 | | | | |
| | 4 | | | |
| The data needed by the service exist in my company/network in the proper format and can be easily made 3 | 3 | | | |
| available for the service. | 4 | | | |
| | 4 | | | |
| ,, | 3 | | | |
| | 4 | | | |
| The solution is easy to take up also to emize. | 4 | | | |
| | 3 | | | |
| What could be improved to make more value of the tool/service? | | | | |
| F10 | | | | |
| Dim.G (Suitability to network/collaborative environment) Total | 3.5 | | | |
| Ref # Question Answer (0-4) | 0.0 | | | |
| G1 The service supports collaboration and interoperability for my network. 3 | | | | |
| G2 The service is suitable for heterogeneous users and different networks. 4 | | | | |
| G3 The service takes into account safety and security. 3 | 3 | | | |
| G4 The service usage does not require high negotiation or complex agreements in the network. 4 | • | | | |
| Results Assessment | | | | |
| | | | | |
| I-unctional Dimension | | | | |
| Functional Dimension TSS Results | | | | |
| TSS Results | | | | |
| TSS Results TSS Success | 11 | | | |
| TSS Results | 11 C | | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.4 |
| Dim.C (Understandability/simplicity) | 3.3 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.5 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| Test Case ID | (CWP_DIS_UT_02) CWP DIS UT 03 | Components involved | TREASURE Circularity Web Platform | | | | |
|-------------------|---|---------------------|--|--|--|--|--|
| Actors involved | Stephan Harkema (TNO) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Short Description Assess and expert experies information about a gar part disassembly time from the Disassemblehility Deckhaard | | | | | | |

Test Script

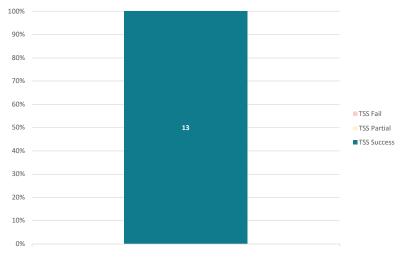
- Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

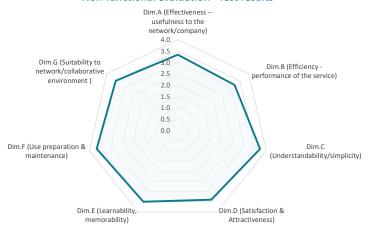
6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

| TSS _{success} | 13 | | TSS _{partial} | 0 | | | TSS _{fail} 0 | | 0 |
|---|--|----------------|---|-----------------------|-------------------|------------|-----------------------|------------|-----|
| Functionalities | | | Expected Results | | | Passed | Remarks | | |
| Access to the Circularity | Web Platform | | Circularity Web Platform shows to | gin page | | YES | | | |
| Login to the Platform | | | User successfully logged in | | | YES | | | |
| User redirected to home | page | | Home page correctly opened | | | YES | | | |
| Search for "combimeter" | car part | | List of relevant car parts shows up |) | | YES | | | |
| Select component to visu | alize | | Modules selection page is shown | for the selected co | mponent | YES | | | |
| Click the "OPEN DIS" but | ton in the "Disas | semblability | Disassembly dashboard is shown | for the selected co | mponent | YES | | | |
| Navigate to the "Disasser | nbly times (manu | ıal)" section. | "Disassembly times (manual)" sec | | has an info | YES | | | |
| | | | button next to "Level 1" and "Leve | | | 120 | | | |
| Press the info button nex | t to the "Level 2" | metric | Disassembly time (level 2) page is | s correctly shown | | YES | | | |
| Assess the parts table | | | Parts table correctly displays all t | | | YES | | | |
| Press the "Info" button ne | ext to the "Difficul | ty level" | "Difficulty level calculation" popur | is correctly shown | 1 | YES | | | |
| table header Assess the difficulty level | tabla | | The difficulty level table contains | the proper informat | tion | 7/20 | | | |
| | | | · ' | trie proper iniorniai | .1011 | YES | | | |
| Press the "Close" ("X") bu | ицоп | | The difficulty level popup closes | " vlov" fort | | YES | | | |
| Press the "Export" button | land's | | Data are exported successfully in | .xisx iormat | | YES | | | |
| Non-Functional Eva | | , . | , | | | | 7.1 | | |
| Dim.A (Effectiveness | usefulness to th | e network/co | ompany) | | | | Total | | 3.3 |
| Ref # Question | | | | | | | An | swer (0-4) | |
| | | | and benefit of the service to me tant / useful for the company/n | | | | | 3 | |
| - saving co - increasing - saving tim A2 - decreasin - improving - sharing in - attracting - boosting I | improving quality sharing information attracting customers boosting learning and innovation supporting networking with other organizations | | | | | | 3 | | |
| What could | What could be improved to make more value of the tool/service? | | | | | | | | |
| A4 | • | | | | | | | | |
| Dim.B (Efficiency - perf | ormance of the | service) | | | | | Total | | 3.2 |
| Ref # Question | | | | | | | Answer (0-4) | | |
| B1 The time ar | nd resources re | equired to ac | chieve the objectives with the s | service are reason | nable/moderate. | | | 3 | |
| B2 The service | runs fast enou | ıgh. | • | | | | | 3 | |
| | | | y steps to achieve the result. | | | | 3 | | |
| - | | | company/ network. | | | | 3 | | |
| | The service structure allows flexible & fast performance of the tasks. | | | | 4 | | | | |
| What could | What could be improved to make more value of the tool/service? | | | | | | | | |
| B6 | | | | | | | | | |
| Dim.C (Understandabili | ty/simplicity) | | | | | | Total | | 3.7 |
| Ref # Question | Ref# Question | | | | | | An | swer (0-4) | |
| C1 The service structure and logic is easy and self-clear to understand and recognizable. | | | | | | 3 | | | |
| | C2 The concepts are understandable for my organization and in line with TREASURE terminology | | | | | | 4 | | |
| | C3 The service offers sufficient guidance | | | | | | 4 | | |
| C4 The respon | | ions are und | derstandable. The look and fee | l is self explanato | ry and follows th | е | | 4 | |
| C5 The suppor | | rocesses / ta | asks is clear. The user can unc | lerstand his/her r | ole and the purpo | ose of the | | 4 | |
| | • • • | | | | | | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | what is | | | | |
|--------------------|--|-----------------|--------|--------------|-----|--|
| C6 | required for input. | Wildlis | | 4 | | |
| C7 | The output of the service is clear and understandable. | | 3 | | | |
| | What could be improved to make more value of the tool/service? | | | | | |
| C8 | · | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.4 | |
| Ref# | Question | | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the state | us and starting | | 4 | | |
| D2 | again. | | | | | |
| D3 | The mental workload when using the service is low. | | | 3 | | |
| D4 | The service rewards the user also personally | | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| | 1 100 | | = | | | |
| <u> </u> | rnability, memorability) | | Total | A (O. 4) | 3.5 | |
| Ref# | Question | | | Answer (0-4) | | |
| E1 E2 | It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | | |
| E4 | The service offers sufficient training support. | | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | | |
| E5 | | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.7 | |
| Ref# | Question | <u> </u> | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily | made | | 3 | | |
| 13 | available for the service. | | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | | 3 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | | | | |
| F8 F9 | The service does not require extensive change of business processes. | | 4 3 | | | |
| F9 | The service does not require high maintenance. What could be improved to make more value of the tool/service? | | | <u> </u> | | |
| F10 | Trial votal 20 milproved to make more value of the tool/service: | | | | | |
| Dim.G (Sui | Itability to network/collaborative environment) | | Total | | 3.5 | |
| Ref# | Question | 1 | | Answer (0-4) | *** | |
| G1 | The service supports collaboration and interoperability for my network. | | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | | |
| G3 | The service takes into account safety and security. | 3 | | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | | |
| Results Assessment | | | | | | |
| Functional | Dimension | | | | | |
| | | i | | TSS Results | | |
| TSS Succ | ess | | | | 13 | |
| TSS Parti | | | | | (| |
| TSS Fail | | <u> </u> | | | 0 | |
| | | | | | | |



| | Results |
|---|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 3.2 |
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.7 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.5 |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | | |
|-------------------|---|---------------------|---|--|--|--|--|
| Actors involved | Stephan Harkema (TNO) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Chart Danswirtian | Visualiza haria and daine information should appear in the Fan Darkhand | | | | | | |

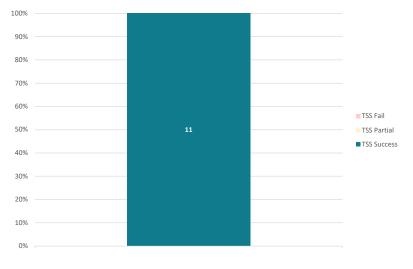
Short Description Visualize basic eco-design information about a car part in the Eco-Design Dashboard

Test Script

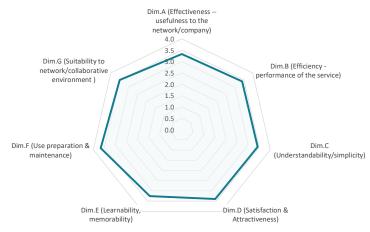
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | S _{success} 11 | I | TSS _{partial} 0 | | TSS _{fail} | | 0 |
|---|--|-----------------|--|-------------------|---------------------|-----------------|-----|
| Functional | | • | Expected Results | Passed | Remarks | | - V |
| Access to t | he Circularity Web Platform | | Circularity Web Platform shows login page | YES | | | |
| Login to the | | | User successfully logged in | YES | | | |
| | cted to home page | | Home page correctly opened | YES | | | |
| Search for "combimeter" car part | | | List of relevant car parts shows up | YES | 1 | | |
| Select com | ponent to visualize | | Modules selection page is shown for the selected component | YES | | | |
| Click the "C | PEN ECO" button in the "Ec | o-Design | Eco-design dashboard is shown for the selected component | | | | |
| Module" ca | | Ü | | YES | | | |
| Assess com | ponent overall stats section | | All relevant information for the desired section is displayed | YES | | | |
| Assess "To | p 5 metals" section | | All relevant information for the desired section is displayed | YES | | | |
| Select an o right of the | ption from the metals dropdo section | own on the | All relevant information for the desired section updates accordingly | YES | | | |
| | nouse over the info icon next amic rarity" sub-section title | t to the "By | A tooltip explaining the sub-title meaning appears | YES | | | |
| Assess the | "Plastic characterization" sec | ction | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | YES | | | |
| Assess the | "Disassemblability metrics" s | section | The appropriate disassemblability metrics are shown | YES | | | |
| Assess the | "Eco-Design recommendation | ons" | The proper eco-design recommendations are displayed coherently with the metrics above | YES | | | |
| section | "Semantic Social Network A | | The SSNA tool description is clear and understandable | YES | | | |
| | Open documentation" button | | The SSNA tool documentation opens in a new tab | YES | | | |
| | Open SSNA Tool" button | | The SSNA tool opens in a new tab | YES | | | |
| | ctional Evaluation | | | | | | |
| Dim.A (Effe | ectiveness usefulness to | the network/c | ompany) | | Total | | 3.3 |
| Ref# | Question | | | | - | Answer (0-4) | |
| A1 | It is easy to understand | the objective | and benefit of the service to my organization/network. | | | 3 | |
| | | | tant / useful for the company/network. The service creates val | ue for my | † | | |
| l . | | | tant, accounted the company, network the corried ordates van | 10 101 111 | | | |
| | company &network, for | example by | | | | | |
| | - saving costs | | | | | | |
| | - increasing income | | | | | | |
| | - saving time, accelerating | ng processes | | | | 4 | |
| A2 | - decreasing risks | | | | | 4 | |
| | - improving quality | | | | | | |
| | - sharing information | | | | | | |
| | - attracting customers | | | | | | |
| | - boosting learning and i | | | | | | |
| Λ2 | - supporting networking | | ness objectives / perform the tasks with the service. | | | 3 | |
| A3 | | | ore value of the tool/service? | | | 3 | |
| A4 | TTHAT COULD BE IIII PLOVE | o to make m | ore value or the tooksel vice: | | | | |
| Dim P (Eff: | L ciency - performance of the | e service) | | | Total | | 2.4 |
| _ | | e sei vice) | | | TOTAL | A ====== (0, 4) | 3.4 |
| Ref# | Question | | | | | Answer (0-4) | |
| B1 | | | chieve the objectives with the service are reasonable/moderate |) . | | 3 | |
| B2 | The service runs fast en | | | | ļ | 4 | |
| B3 | The service does not require too many steps to achieve the result. | | | | | 3 | |
| B4 | All the functions are ben | eficial for my | company/ network. | | | 3 | |
| B5 | | | fast performance of the tasks. | | | 4 | |
| B6 What could be improved to make more value of the tool/service? | | | | | | | |
| Dim.C (Understandability/simplicity) | | | | | Total | | 3.4 |
| Ref# | Question | | | | i | Answer (0-4) | |
| C1 | | nd logic is eas | y and self-clear to understand and recognizable. | | | 3 | |
| C2 | | | my organization and in line with TREASURE terminology | | | 3 | |
| | The service offers suffici | | , , | | | 3 | |
| C3 | | | derstandable. The look and feel is self explanatory and follows | tho | | J | |
| C4 | TREASURE style. | cuons are un | gerstandable. The look and reens sell explanatory and follows | uic | | 4 | _ |
| | | | | | | | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the p | urnose of the | | | |
|------------|--|-------------------|----------------|--------------|-----|
| C5 | actions required. | | 4 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clea required for input. | r what is | 4 | | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| C8 | What could be improved to make more value of the tool/service? | • | | | |
| C8 | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.4 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the st again. | atus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| Do | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 3.3 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.7 |
| Ref# | Question | 1 | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easi available for the service. | ily made | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 3 | | |
| F9 | The service does not require high maintenance. | | 3 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| Dim.G (Sui | tability to network/collaborative environment) | | Total | | 3.5 |
| Ref# G1 | Question The service supports collaboration and interoperability for my network. | | Answer (0-4) 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | |
| G3 | The service takes into account safety and security. | | 4 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | ess | | | TSS Results | |
| TSS Partia | | | | | 0 |
| | | | | | |
| TSS Fail | | | | | n |



| | I | | | |
|--|---------|--|--|--|
| Non-functional Dimension | | | | |
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | |
| Dim.C (Understandability/simplicity) | 3.4 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.4 | | | |
| Dim.E (Learnability, memorability) | 3.3 | | | |
| Dim.F (Use preparation & maintenance) | 3.7 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.4 | | | |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform | | | |
|---|---|---------------------|--|--|--|--|
| Actors involved | Stephan Harkema (TNO) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Access and expert specific information about material composition for a car part in the Eco Design Deschboard | | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)
 Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| 155 _{success} 13 | | I 33 _{partial} | 0 | | I ၁၁ _{fail} | 0 |
|---|---|--|------------------------------|--------|----------------------|---|
| Functionalities | | Expected Results | | Passed | Remarks | |
| Access to the Circularity Web Platform | | Circularity Web Platform shows login page | | YES | | |
| Login to the Platform | | User successfully logged in | | YES | | |
| User redirected to home page | | Home page correctly opened | | YES | | |
| Search for "combimeter" car pa | art | List of relevant car parts shows up | | YES | | |
| Select component to visualize | | Modules selection page is shown for the se | elected component | YES | | |
| Click the "OPEN ECO" button i | in the "Eco-Design | Eco-design dashboard is shown for the sel- | lected component | YES | | |
| Navigate to the "By weight" sub-section of the "Top 5 metals" section | | "By weight" sub-section of the "Top 5 meta has a "Details" button above the correspon | · · | YES | | |
| Press the "Details" button above the corresponding stacked bar chart | | "Metals by weight" page is correctly shown | n | YES | | |
| Select a filtering method from the dropdown menu next to "Show" | | Metals table correctly displays all the releve for the user selection | vant information accounting | YES | | |
| Select a filtering method from t next to "Assess" | Select a filtering method from the dropdown menu next to "Assess" Metals table correctly displays all the relevant information accounting for the user selection | | vant information accounting | YES | | |
| Assess the "Metals by weight" table | | Metals table correctly displays all the relev selected filtering methods | vant information for the | YES | | |
| Hover the mouse over the info icon next to the "Share over the total weight", "Supply risk" and "SMI" table column titles | | A tooltip explaining the table column title n | meaning appears | YES | | |
| Press the "Export" button | | Data are exported successfully in ".xlsx" for filters | ormat, following the applied | YES | | |
| Man Franckisco I Francisco Con | | | | | | |

Non-Functional Evaluation

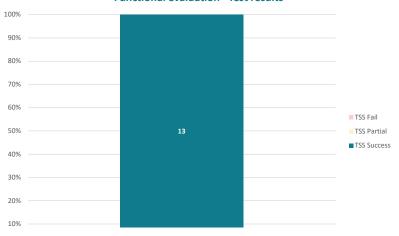
| Dim.A (Eff | Dim.A (Effectiveness usefulness to the network/company) | | Total | 3.7 |
|------------|---|--------|-------|----------|
| Ref# | Question | | Answe | er (0-4) |
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | | | 4 |
| | The outcome of the service is important / useful for the company/network. The service creates value | for my | | |
| | company &network, for example by | | | |
| | - saving costs | | | |
| | - increasing income | | | |
| | - saving time, accelerating processes | | | |
| A2 | A2 - decreasing risks | | ; | 3 |
| | - improving quality | | | |
| | - sharing information | | | |
| | - attracting customers | | | |
| | - boosting learning and innovation | | | |
| | - supporting networking with other organizations | | | |
| A3 | A3 It is easy to achieve the planned business objectives / perform the tasks with the service. | | 4 | 4 |
| Δ4 | What could be improved to make more value of the tool/service? | | | |

| Dim.B (Effi | Dim.B (Efficiency - performance of the service) | | Total 3.2 | | |
|-------------|---|--------------|-----------|---|--|
| Ref# | Question | Answer (0-4) | | | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 3 | | |
| B2 | The service runs fast enough. | | 4 | | |
| B3 | The service does not require too many steps to achieve the result. | | 3 | | |
| B4 | All the functions are beneficial for my company/ network. | | | 3 | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 3 | |
| В6 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |

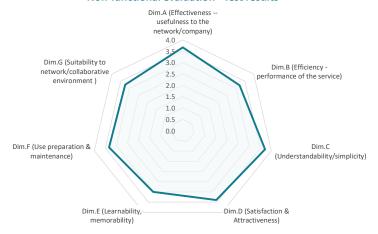
| Dim.C (Understandability/simplicity) | | Total | 3.7 |
|--------------------------------------|---|-------|----------|
| Ref# | Question | Answe | er (0-4) |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | 4 |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | 3 |

| C2 | The convice offers sufficient guidence | | | 4 | |
|--|---|-------------------|-------|---|-----|
| C3 | The service offers sufficient guidance The responses to user actions are understandable. The look and feel is self explanatory and follows | the | | | |
| C4 | TREASURE style. | | 3 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the pu actions required. | | | 4 | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | what is | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| C8 | What could be improved to make more value of the tool/service? | _ | | | |
| | isfaction & Attractiveness) | | Total | | 3.4 |
| Ref# | Question | | Total | Answer (0-4) | 3.4 |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | · | | 3 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stagain. | atus and starting | | 4 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D3 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | т | |
| D6 | What could be improved to make more value of the tool/service: | | | | |
| im.E (Lea | I rnability, memorability) | | Total | | 3.0 |
| ef# | Question | - | | Answer (0-4) | 3.0 |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | |
| E2 | It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | | | 3 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | 3 | | |
| | | | | - | |
| | IWhat could be improved to make more value of the tool/service? | | | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| | what could be improved to make more value of the tool/service? preparation & maintenance) | | Total | | 3.3 |
| im.F (Use | · | | Total | Answer (0-4) | 3.3 |
| im.F (Use | preparation & maintenance) Question | | Total | Answer (0-4) | 3.3 |
| im.F (Use | preparation & maintenance) | | Total | | 3.3 |
| oim.F (Use lef# F1 | preparation & maintenance) Question | y made | Total | 3 | 3.3 |
| im.F (Use ef # F1 F2 | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi | y made | Total | 3 3 | 3.3 |
| im.F (Use ef # F1 F2 F3 | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. | y made | Total | 3 3 3 | 3.3 |
| F1 F2 F3 F4 | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. | y made | Total | 3 3 3 4 | 3.3 |
| F1 F2 F3 F4 F5 | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | y made | Total | 3 3 3 4 4 | 3.3 |
| F1 F2 F3 F4 F5 F6 | preparation & maintenance) [Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | y made | Total | 3 3 3 4 4 4 3 | 3.3 |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | y made | Total | 3 3 3 4 4 4 3 3 | 3.3 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | y made | Total | 3 3 3 4 4 3 3 3 | 3.3 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | y made | | 3 3 3 4 4 3 3 3 | 3.3 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 (Suim.G (Suim.F (Use | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easi available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | y made | Total | 3 3 3 4 4 4 3 3 3 4 3 | 3.3 |
| im.F (Use ef # F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [ability to network/collaborative environment] | y made | | 3 3 4 4 4 3 3 4 3 4 3 | |
| F1 F10 F10 F10 F10 F10 F10 F10 F10 F10 F | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Question] The service supports collaboration and interoperability for my network. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Austion] Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of # G1 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Question] The service supports collaboration and interoperability for my network. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Austion] Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F10 G2 G3 G4 | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Austion] The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 3 3 3 3 3 3 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of # G1 G2 G3 G4 Results | preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 3 3 3 3 3 3 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 Results | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [ability to network/collaborative environment] Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | y made | | 3 3 4 4 4 3 3 4 3 3 4 3 3 3 3 3 3 3 3 3 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suite of # G1 G2 G3 G4 Results | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Question] The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. [Seessment] Dimension | y made | | 3 3 3 4 4 4 3 3 4 3 4 3 4 3 4 4 4 4 4 4 | |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Sim.G (Suitef # G1 G2 G3 G4 Results A sunctional sunction | preparation & maintenance) [Question] The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easil available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? [Austion] The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. **Sessment** Dimension** | y made | | 3 3 3 4 4 4 3 3 4 3 4 3 4 3 4 4 4 4 4 4 | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.2 |
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.0 |
| Dim.F (Use preparation & maintenance) | 3.3 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.4 |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|-------------------|--|---------------------|--|--|--|
| Actors involved | Stephan Harkema (TNO) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| Chart Danswinting | Windles had a market before a factor of the state of the provide t | | | | |

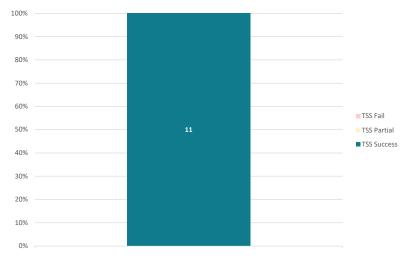
Short Description Visualize basic recycling information about a car part in the Recyclability Dashboard

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | | ectly reported in its dedicated card and is displayed in the app | opriate torria | | | |
|---|--|--|----------------|---------------------|-----------------|-----|
| TS | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | | 0 |
| Functional | ities | Expected Results | Passed | Remarks | | |
| Access to t | he Circularity Web Platform | Circularity Web Platform shows login page | YES | | | |
| Login to the | e Platform | User successfully logged in | YES | | | |
| User redire | cted to home page | Home page correctly opened | YES | | | |
| Search for | "combimeter" car part | List of relevant car parts shows up | YES | | | |
| Select com | ponent to visualize | Modules selection page is shown for the selected component | YES | | | |
| | DPEN REC" button in the "Disassemblability | Recyclability dashboard is shown for the selected component | | | | |
| Module" ca | - 1 | Theory stability data is one in the first the constitute of the co | YES | | | |
| | ponent overall stats section | All relevant information for the desired section is displayed | YES | | | |
| | stimization objective of recycling" section | All relevant recycling optimization objectives is displayed | 120 | | | |
| ,,,,,,,,, | annia and a special of ree yearing education | 7 in 1010 tank 100 young opining and in objectives to displayed | YES | | | |
| Assess "Ge | neral composition build-up" pie chart | All relevant information for the desired section is displayed | _ | | | |
| section | noral composition balla ap plo orial t | 7 in relevant information for the about ou cocater to displayed | YES | | | |
| | cycling rates" section | All relevant information for the desired section is displayed with | | | | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | eyemig rates essuen | respect to the current recyclability level | YES | | | |
| Select a dif | ferent recycling level using the dropdown | The recycling rates and processing routes change accordingly | _ | | | |
| | e top of the section | The recycling rates and processing routes change accordingly | YES | | | |
| | "Individual recycling rates" sub-section | All relevant information for the desired sub-section is displayed with | 1 | | | |
| , 100000 1110 | marriada recycling rates cas section | respect to the current recyclability level and processing route | YES | | | |
| Salact a dif | ferent processing route using the | The individual recycling rates flower chart updates accordingly | | | | |
| | menu next to the "Details" button. | The individual recycling rates nower chart appeares accordingly | YES | | | |
| | edback for recyclers" section | All relevant information for the desired section is displayed | 1 | | | |
| A33633 1 6 | edback for recyclers section | All relevant information for the desired section is displayed | YES | | | |
| Proce the " | Add feedback" button | The add feedback popup appears | 1 | | | |
| 1 1033 1110 7 | Add leedback button | тпе аси теесраск ророр арреата | YES | | | |
| Insert some | e feedback text, then press the "Add | The feedback is correctly inserted into the feedbacks table | _ | | | |
| feedback" l | | The resultation is correctly interior into the resultation table | YES | | | |
| | ctional Evaluation | | | | | |
| | ectiveness usefulness to the network/co | omnany) | _ | Total | | 3.0 |
| Ť | | ompany) | | I | A ====== (0, 4) | 3.0 |
| Ref# | Question | | | | Answer (0-4) | |
| A1 | | and benefit of the service to my organization/network. | | | 3 | |
| | · · | tant / useful for the company/network. The service creates valu | ie for my | | | |
| | company &network, for example by | | | | | |
| | - saving costs | | | | | |
| | - increasing income | | | | | |
| | - saving time, accelerating processes | | | | | |
| A2 | decreasing risks | | | | 3 | |
| | - improving quality | | | | | |
| | - sharing information | | | | | |
| | - attracting customers | | | | | |
| | - boosting learning and innovation | | | | | |
| | - supporting networking with other org | panizations | | | | |
| A3 | | ness objectives / perform the tasks with the service. | | | 3 | |
| | What could be improved to make m | · | | • | | |
| A4 | Triat could be improved to make in | ore value of the tooksel vice. | | | | |
| D: D /E// | | | | T / I | | |
| <u> </u> | ciency - performance of the service) | | | Total | | 3.2 |
| Ref# | Question | | | <u>.</u> | Answer (0-4) | |
| B1 | The time and resources required to a | chieve the objectives with the service are reasonable/moderate | | | 3 | |
| B2 | The service runs fast enough. | | | | 3 | |
| В3 | | v steps to achieve the result. | | | 3 | |
| B4 | | | | | 4 | |
| B5 | , , , | | | 1 | 3 | |
| B0 | | , | | | J | |
| В6 | What could be improved to make m | ore value of the tool/service? | | | | |
| | | | | | | |
| Dim.C (Un | derstandability/simplicity) | | | Total | | 3.4 |
| Ref# | Question | | | | Answer (0-4) | |
| C1 | The service structure and logic is easy | y and self-clear to understand and recognizable. | | | 3 | |
| C2 | , i | my organization and in line with TREASURE terminology | | | 4 | |
| | The service offers sufficient guidance | , | | + | | |
| C3 | 3 | | J | + | 3 | |
| C4 | TREASURE style | derstandable. The look and feel is self explanatory and follows | ne | | 4 | |
| | I I REASTIRE STAID | | | | | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the pu | rnoso of the | | | |
|------------|--|-------------------|-------|--------------|-------------|
| C5 | actions required. | | 3 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | | 4 | | |
| | required for input. | | | | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| C8 | What could be improved to make more value of the tool/service? | | | | |
| Dim.D (Sat | sfaction & Attractiveness) | | Total | | 3.2 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the sta again. | atus and starting | | 3 | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 | The service rewards the user also personally | | | 3 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| DC | What could be improved to make more value of the tool/service? | | | | |
| D6 | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 3.5 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 3 | |
| E4 | The service offers sufficient training support. | | | 3 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| Dim F (Use | preparation & maintenance) | | Total | | 3.6 |
| Ref# | Question | - | Total | Answer (0-4) | 3.0 |
| F1 | The take-up of the service does not require high preparation. | · | | 3 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| | The data needed by the service exist in my company/network in the proper format and can be easil | v made | | | |
| F3 | available for the service. | , I | | 3 | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| <u> </u> | tability to network/collaborative environment) | | Total | | 3.3 |
| | Question | <mark> </mark> | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | |
| G3 | The service takes into account safety and security. | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| | | . | | TSS Results | |
| TSS Succ | ess | | | | <u>-</u> 11 |
| TSS Partia | | | | | 0 |
| TSS Fail | | | | · | 0 |
| | | | | | |



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.2 | | | |
| Dim.C (Understandability/simplicity) | 3.4 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.2 | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | |
| Dim.F (Use preparation & maintenance) | 3.6 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.3 | | | |
| | Total | | | |
| | 3.3 | | | |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | |
|--|-----------------------|---------------------|--|--|
| Actors involved | Stephan Harkema (TNO) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | |
| Short Description Assess specific information about individual recycling rates for a car part in the Decyclability Dashboard | | | | |

Test Script

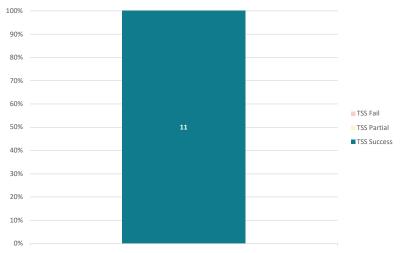
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.

What could be improved to make more value of the tool/service?

- 6. Click the "Details" button net to the recycling routes dropdown menu.

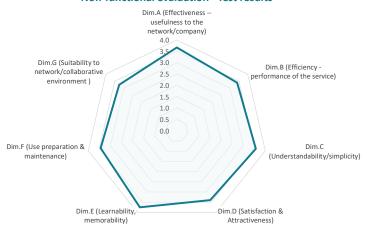
| 7. Assess | that all the recy | cling rate | s for the selec | cted recycling level and recycli | ng route are pre | esent and correct. | | | | |
|---|---|--------------|-----------------|-------------------------------------|---------------------|---------------------|------------|--|--------------|-----|
| TS | S _{success} | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
| Functionalities | | | | Expected Results | | • | Passed | Remarks | | |
| Access to the Circularity Web Platform | | | | Circularity Web Platform shows le | ogin page | | YES | | | |
| Login to the Platform | | | | User successfully logged in | | | YES | | | |
| User redirected to home page | | | | Home page correctly opened | | | YES | | | |
| Search for "combimeter" car part | | | | List of relevant car parts shows u | ID ID | | YES | | | |
| Select component to visualize | | | | Modules selection page is shown | | component | YES | | | |
| Click the " | OPEN REC" button | in the "Re | ecyclability | Recyclability dashboard is shown | for the selected | component | YES | | | |
| Navigate to | o the "Individual re | cycling ra | tes" sub- | "Individual recycling rates" sub-s | ection of the "Rec | cycling rates" | | | | |
| section of t | the "Recycling rate | es" section | ı | section is present and has a "Det | ails" button next t | to the recycling | YES | | | |
| | | | | routes dropdown menu | | | | | | |
| | 'Details" button nex | xt to the re | ecycling routes | "Individual recycling rates" page | is correctly shown | n | YES | | | |
| dropdown | menu | | | | | | IES | | | |
| | ecyclability level fro | om the top | -right | Recycling rates table correctly di | | evant information | YES | | | |
| dropdown | | | | accounting for the user selection | | | 120 | | | |
| | ecycling route from | the secor | nd dropdown | Recycling rates table correctly di | | evant information | YES | | | |
| menu on th | | | | accounting for the user selection | | | 120 | | | |
| Assess the | "Rates by recycling | ng route" t | able | Recycling rates table correctly di | | | YES | | | |
| | | | | the selected recyclability level ar | id recycling route | • | 123 | | | |
| Non-Fur | nctional Evalua | ation | | | | | | | | |
| Dim.A (Eff | fectiveness use | fulness to | the network/c | ompany) | | | | Total | | 3.7 |
| Ref# | Question | | | | | | | | Answer (0-4) | |
| A1 | It is easy to un | derstand | the objective | and benefit of the service to r | ny organization/ | /network. | | | 4 | |
| | | | | tant / useful for the company/n | | | e for my | İ | | |
| | company &net | | | . , | | | , | | | |
| | - saving costs | | | | | | | | | |
| | - increasing inc | come | | | | | | | | |
| | - saving time, a | | ing processes | | | | | | | |
| A2 | - decreasing ri | | 0. | | | | | | 3 | |
| | - improving qu | ality | | | | | | | | |
| | - sharing inforr | | | | | | | | | |
| | - attracting cus | | | | | | | | | |
| | - boosting lear | | innovation | | | | | | | |
| | | | with other ord | ganizations | | | | | | |
| A3 | | | | iness objectives / perform the t | asks with the se | ervice. | | | 4 | |
| | What could be | improv | ed to make m | ore value of the tool/service? | ? | | | • | | |
| A4 | | | | | | | | | | |
| Dim.B (Eff | ficiency - perform | ance of th | ne service) | | | | | Total | | 3.4 |
| Ref# | Question | | | | | | | 10101 | Answer (0-4) | 5.4 |
| B1 | | | required to a | chique the chicatives with the | convice are reas | conchio/modorato | | | 3 | |
| | + | | | chieve the objectives with the | service are reas | sonable/moderate. | | | | |
| B2 | The service ru | | _ | | | | | | 4 | |
| B3 | | | | | | | | 4 | | |
| B4 | All the functions are beneficial for my company/ network. | | | | | 3 | | | | |
| B5 | B5 The service structure allows flexible & fast performance of the tasks. | | | | | | 3 | | | |
| В6 | What could be | e improv | ed to make m | ore value of the tool/service? | ž – | | | | | |
| D0 | | | | | | | | | | |
| Dim.C (Un | derstandability/si | implicity) | | | | | | Total | | 3.6 |
| Ref# | Question | | | | | | | | Answer (0-4) | |
| C1 | | ucture a | nd logic is eas | y and self-clear to understand | and recognizate | ole. | | | 4 | |
| C2 | | | | | | | | | 4 | |
| | , 0 | | | | | | 4 | | | |
| <u> </u> | GG THE COLUMN GALLERY | | | | | | | | | |
| The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | | | | | | | |
| | TREASURE sty | | n=000 / / | solve in close The | doratonal I-:-! | | of 41 | + | | |
| C5 | | | s processes / t | asks is clear. The user can und | derstand his/her | r role and the purp | ose of the | | 3 | |
| <u> </u> | actions require | | | disalore The 4 1 1 1 1 | l (| IL ! | L-4:- | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w | | | nat is | | 4 | | | | |
| | required for in | | | | | | | + | | |
| C7 | | | | understandable. | | | | <u> </u> | 3 | |
| | IWhat could be | improv | ad to make m | ore value of the tool/service? | , | | | | | |

| im.D (Sat | tisfaction & Attractiveness) | Total | | 3.4 | |
|-----------|---|-----------|--------------|-----|--|
| ef# | Question | I | Answer (0-4) | 0.4 | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 3 | | |
| | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and s | tarting | - | | |
| D2 | again. | nai ii ig | 4 | | |
| D3 | The mental workload when using the service is low. | | 3 | | |
| D4 | The service rewards the user also personally | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | 3 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| D6 | | | | | |
| im.E (Lea | arnability, memorability) | Total | | 3.8 | |
| ef# | Question | I | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | |
| E4 | The service offers sufficient training support. | | 3 | | |
| | What could be improved to make more value of the tool/service? | • | | | |
| E5 | | | | | |
| im.F (Use | preparation & maintenance) | Total | | 3.4 | |
| ef# | Question | ļ. | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 3 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made | | 3 | | |
| гэ | available for the service. | | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 3 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | | | | | |
| m.G (Sui | itability to network/collaborative environment) | Total | | 3.3 | |
| ef# | Question | <u> </u> | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | |
| G3 | The service takes into account safety and security. | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | |
| esults A | Assessment | | | | |
| unctional | Dimension | | | | |
| | | i | TSS Results | | |
| SS Succ | ess | | | | |
| SS Partia | | 1 | | | |
| SS Fail | | + | | | |



| Non-functional Dimension | | | | |
|---|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.4 | | | |

| Dim.C (Understandability/simplicity) | 3.6 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.3 |
| | Total |
| | 3.5 |





Actors involved

TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Business: Veronica Antonello (veronica.antonello@txtgroup.com)

4

Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com)

Test Case References Test Case ID CWP_DIS_ADV_UT_01 Components involved TREASURE Circularity Web Platform

Contact Point

Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.

Nicolò Maria Ippolito (UNIVAQ)

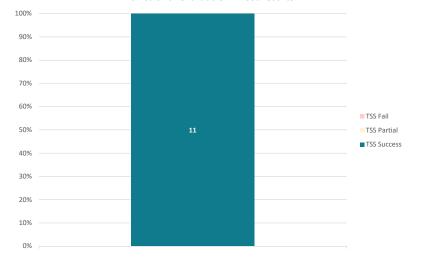
4. Click the "OPEN DIS" button in the "Disassembly Module" card.

The output of the service is clear and understandable.

- 5. Click the "Dis advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

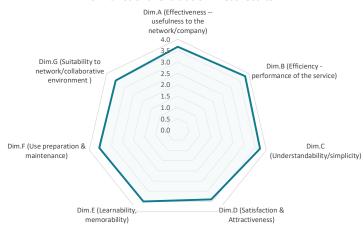
| o. Assess | mai every information expected is corr | ectly reported in its dedicated card and is displayed in the app | ropriate format | l. | | |
|----------------------------|--|--|-----------------|---|------------|--|
| TS | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 | |
| Functional | | Expected Results | Passed | Remarks | | |
| Access to the | ne Circularity Web Platform | Circularity Web Platform shows login page | YES | | | |
| Login to the | • | User successfully logged in | YES | | | |
| | cted to home page | Home page correctly opened | YES | | | |
| | 'combimeter" car part | List of relevant car parts shows up | YES | | | |
| | ponent to visualize | Modules selection page is shown for the selected component | YES | | | |
| | DPEN DIS" button in the "Disassemblability | Disassembly dashboard is shown for the selected component | 120 | | | |
| Module" ca | | bisassembly dashboard is shown for the selected component | YES | | | |
| | is advisory" link on the top navbar. | Disassembly advisor dashboard correctly opened | YES | | | |
| | ctrical and electronic equipment" sub | All relevant information for the desired sub-section is displayed | | | | |
| | ne "Metals to be extracted" section | 7 in relevant information for the desired sub-section is displayed | YES | | | |
| | and cost metrics below the metals table | All relevant information for the desired sub-section is displayed | | | | |
| | | | YES | | | |
| Adjust the " | Disassembly cost per hour" value | The "Estimated disassembly cost" metric is adjusted accordingly | | | | |
| ,, | | 3, | YES | | | |
| Assess "The | ermodynamic rarity VS Revenue" sub | All relevant information for the desired sub-section is displayed | | | | |
| | ne "Metals to be extracted" section | | YES | | | |
| Adjust the " | Thermodynamic rarity value limit" and | The lower limits for the "Thermodynamic rarity indicator" and | | | | |
| | for revenue" metrics | "Revenue" metrics are adjusted accordingly in the chart | PARTIAL | I was not able to understand how to adjust them | | |
| | the mouse over a metal in the chart | A tooltip with specific metrics about the selected metal is shown | YES | | | |
| | ctional Evaluation | A regard with obscure mentes about the selected metal is shown | 169 | <u> </u> | | |
| | | <u> </u> | _ | | | |
| | ectiveness usefulness to the network/co | ompany) | | Total | 3.7 | |
| Ref# | Question | | | Ans | swer (0-4) | |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | 4 | |
| | The outcome of the service is impor- | tant / useful for the company/network. The service creates val | ue for my | | | |
| 1 | company &network, for example by | | | | | |
| | - saving costs | | | | | |
| 1 | - increasing income | | | | | |
| 1 | - saving time, accelerating processes | | | | | |
| A2 | - decreasing risks | | | | 3 | |
| 1 | - improving quality | | | | | |
| 1 | - sharing information | | | | | |
| | - attracting customers | | | | | |
| | - boosting learning and innovation | | | | | |
| | - supporting networking with other ord | ranizations | | | | |
| A3 | | ness objectives / perform the tasks with the service. | | | 4 | |
| | What could be improved to make m | | | | | |
| A4 | The sound so improved to make in | 0.0 14.40 0. 1.10 100,000 1.100 1 | | | | |
| D: D /Eff: | | | | Total | | |
| <u> </u> | ciency - performance of the service) | | | | 3.8 | |
| Ref# | Question | | | Ans | swer (0-4) | |
| B1 | B1 The time and resources required to achieve the objectives with the service are reasonable/moderate. 4 | | | | | |
| B2 | B2 The service runs fast enough. 4 | | | | | |
| B3 | v | | | | 4 | |
| B4 | All the functions are beneficial for my | | | | 3 | |
| B5 | The service structure allows flexible & | | | | 4 | |
| D0 | | · | | | 7 | |
| В6 | What could be improved to make m | ore value of the tool/service? | | | | |
| | | | | | | |
| Dim.C (Und | derstandability/simplicity) | | | Total | 3.7 | |
| Ref# Question Answer (0-4) | | | | | | |
| C1 | The service structure and logic is eas | y and self-clear to understand and recognizable. | | T | 4 | |
| C2 | | my organization and in line with TREASURE terminology | | 4 | | |
| C3 | The service offers sufficient guidance | | | 3 | | |
| | | | | | | |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | 4 | |
| | TREASURE style. | | | | | |
| C5 | | asks is clear. The user can understand his/her role and the pu | pose of the | | 4 | |
| | actions required. | | | | | |
| C6 | | tical use. The tasks do not look complex to perform. It is clear | what is | | 3 | |
| I Š | required for input. | | | - | | |

| | What could be improved to make more value of the tool/service? | | | | |
|------------|--|-------------------|--------------|--------------|-----|
| C8 | · | More explanations | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.4 |
| Ref# | Question | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling again. | | 4 | | |
| D3 | The mental workload when using the service is low. | | | 3 | |
| D4 | The service rewards the user also personally | | | 2 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| Dim.E (Lea | I rnability, memorability) | | Total | | 3.5 |
| Ref# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions | s needed. | | 3 | |
| E4 | The service offers sufficient training support. | | | 3 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| im.F (Use | preparation & maintenance) | | Total | | 3.6 |
| tef# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format a available for the service. | | 2 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| im.G (Sui | I tability to network/collaborative environment) | | Total | | 3.5 |
| Ref# | Question | | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | 3 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | |
| G3 | The service takes into account safety and security. | 3 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the r | 4 | | | |
| | Assessment | | | | |
| unctional | Dimension | | | | |
| SS Succ | ess | TSS Results 1 | | | |
| SS Partia | al | | | | |
| SS Fail | | | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |

| Dim.B (Efficiency - performance of the service) | 3.8 |
|---|-------|
| Dim.C (Understandability/simplicity) | 3.7 |
| Dim.D (Satisfaction & Attractiveness) | 3.4 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.6 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.6 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-------------------|--|------------------------------------|---|
| | Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academic | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| г | Short Description | Visualize advisory information about a car | part in the Recyclability Advisory | / Dashboard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.

- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combimeter" component and select the first search result.
 4. Click the "OPEN REC" button in the "Recyclability Module" card.
 5. Click the "Rec advisory" link on the top navbar.
 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

 TSS_{success}

 14

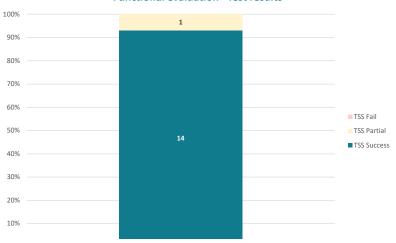
 TSS_{partial}

 1

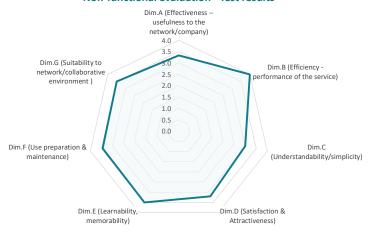
| | ess | 14 | | TSS _{partial} | 1 | | | TSS _{fail} | 0 |
|--|--|---|---|---|--|--------------------------|----------|--|--|
| Functionalities | | | | Expected Results | | | Passed | Remarks | |
| Access to the Circ | rcularity We | b Platform | | Circularity Web Platform shows log | in page | | YES | | |
| Login to the Platfo | form | | | User successfully logged in | | | YES | | |
| User redirected to | to home pag | ie | | Home page correctly opened | | | YES | | |
| Search for "comb | | | | List of relevant car parts shows up | | | YES | | |
| Select componen | | | | Modules selection page is shown for | or the selected cor | mnonent | YES | | |
| Click the "OPEN F | | | ovolobility | Recyclability dashboard is shown for | | | YES | | |
| | | | | | | пропен | YES | | |
| Click the "Rec ad | _ | | | Recyclability advisor dashboard co | | | TES | | |
| Assess the recycl which combinatio process to implen section | on of disasse | embly path | and recycling | All relevant information for the desi | red table is displa | yea | PARTIAL | The method for metals extraction is not me it | entioned, end-user should be interested on |
| Press the info but route | tton at the r | ight of one | recycling | The "DIS & REC route X" popup ap | pears | | YES | | |
| Assess the materi | rials in the "I | DIS & REC | route X" table | All relevant information for the desi | red table is displa | yed | YES | | |
| Assess the revenu | ue indicator | - | | All relevant information for the desi | red section is disp | olayed | YES | | |
| Adjust the "Total o | cost" value | | | The "Profit" indicator updates acco | rdingly | | YES | | |
| Press the "Close" | ` ′ | | | The "DIS & REC route X" popup clo | | | YES | | |
| Assess the "Grapl section | | | | All relevant information for the desi | | | YES | | |
| Hover with the mo | | | route in the | A tooltip with specific metrics abou shown | t the selected recy | ycling route is | YES | | |
| Non-Function | | | | | | | | | |
| Dim.A (Effective | eness use | fulness to | the network/c | ompany) | | | | Total | 3.3 |
| The | outcome | of the ser | rvice is impor | and benefit of the service to my tant / useful for the company/net | | | for my | Answ | 3 |
| A1 It is of The com - sav - inc - sav A2 - dec - imp - she - attr | outcome npany &net ving costs creasing in | of the ser twork, for come acceleration isks ality mation stomers | rvice is impor example by ng processes | tant / useful for the company/net | | | o for my | | |
| A1 It is a The com - sav - inc - sav - dec - imp - she - attr - boc - suy - su | outcome npany &net ving costs creasing in ving time, a creasing ri proving quaring information cracting custosting lear poorting no | of the ser twork, for come acceleration isks allity mation stomers ming and in | rvice is impor example by ng processes innovation with other or | tant / useful for the company/net | twork. The servi | ce creates valu e | e for my | | 3 |
| A1 It is a The com - sav - inc - sav - dec - imp - she - attr - boc - suy - su | outcome npany &net ving costs creasing in ving time, a creasing ri proving quaring information cracting custosting lear poorting no | of the ser twork, for come acceleration isks allity mation stomers ming and in | rvice is impor example by ng processes innovation with other or | tant / useful for the company/net | twork. The servi | ce creates valu e | e for my | | 3 |
| A1 It is a The com - sav - inc - sav A2 - dec - imp - sha - attr - boo - sug A3 It is a Wha | npany & net ving costs creasing in ving time, a creasing ri proving quaring information cracting custom posting lear poporting ne | of the ser twork, for come acceleration isks lality mation stomers rning and in etworking hieve the | vice is imporexample by ng processes innovation with other ord planned busi | tant / useful for the company/net | twork. The servi | ce creates valu e | e for my | | 3 |
| A1 It is a The com - sav - sav - dec - imp - she - attr - boo - sug A3 It is a | npany & net ving costs creasing in ving time, a creasing ri proving quaring information cracting custom posting lear poporting ne | of the ser twork, for come acceleration isks lality mation stomers rning and in etworking hieve the | vice is imporexample by ng processes innovation with other ord planned busi | tant / useful for the company/net ganizations iness objectives / perform the tas | twork. The servi | ce creates valu e | e for my | | 3 |
| A1 It is a The com - sav - inc - sav - dec - imp - sha - attr - boo - sug A3 It is a A4 | outcome pany &net ving costs preasing in ving time, ecreasing ri proving qu aring infore proving qu aring infore proving lear porting ne easy to ac at could be | of the ser work, for come acceleratii isks iality mation stomers ning and i etworking hieve the | rvice is imporexample by ng processes innovation with other or, planned busi ed to make m | tant / useful for the company/net ganizations iness objectives / perform the tas | twork. The servi | ce creates valu e | e for my | | 3 |
| A1 It is a The com - sav - sav - dec - imp - sha - attr - boo - sug A3 It is a A4 | outcome npany & net ving costs creasing in ving time, creasing ri proving qu aring infor racting cus oosting lear pporting ne easy to ac at could be y-perform | of the ser work, for come acceleratii isks iality mation stomers ning and i etworking hieve the | rvice is imporexample by ng processes innovation with other or, planned busi ed to make m | tant / useful for the company/net ganizations iness objectives / perform the tas | twork. The servi | ce creates valu e | e for my | Total | 4 4.0 |
| A1 It is a common commo | outcome npany & net ving costs creasing in ving time, creasing ri proving qu aring infor racting cus oosting lear poporting ne easy to ac at could be y - perform estion | of the ser work, for come acceleratii sks ality mation stomers ning and i etworking hieve the e improve | rvice is imporexample by ng processes innovation with other ore planned busi d to make m e service) | ganizations ness objectives / perform the tas | twork. The service | ce creates value | e for my | Total Answ | 3 4 4 4.0 er (0-4) |
| A1 It is a common commo | outcome pany &nel ving costs creasing in ving time, coreasing ri proving qu aring infor cracting cus costing lear porting ne easy to ac at could be cy - perform estion time and re | of the ser- work, for come acceleratii isks ality mation stomers ning and i etworking hieve the e improve | required to a | tant / useful for the company/net ganizations iness objectives / perform the tas | twork. The service | ce creates value | e for my | Total Answ | 4 4 4.0 er (0-4) |
| A1 It is a Common Commo | outcome pany &nel ving costs creasing in ving time, , creasing ri proving qu aring infor creating cu costing lear pporting ne easy to ac at could be cy - perform stion time and r service ru | of the ser- work, for come acceleratii isks ality mation stomers ning and i etworking hieve the e improve | required to a ough. | ganizations ness objectives / perform the tastore value of the tool/service? chieve the objectives with the se | twork. The service | ce creates value | e for my | Total Answ | 3 4 4.0 er (0-4) 4 4 |
| A1 It is a Common Commo | outcome pany &nel ving costs creasing in ving time, , creasing ri proving qu aring infor creating cu costing lear pporting ne easy to ac at could be cy - perform stion time and r service ru | of the ser- work, for come acceleratii isks ality mation stomers ning and i etworking hieve the e improve | required to a ough. | ganizations ness objectives / perform the tas | twork. The service | ce creates value | e for my | Total Answ | 4 4 4.0 er (0-4) |
| A1 It is a Common Salva | outcome pany &net ving costs creasing in ving time, , creasing ri ving time, , creasing ri proving qu aring infon rracting cu costing lear pporting ne easy to ac at could be cy - perform stion time and r service ru service do | of the ser- work, for come acceleration isks ality mation stomers ning and in etworking hieve the e improve mance of the resources insignation | required to a ough. | ganizations ness objectives / perform the tastore value of the tool/service? chieve the objectives with the se | twork. The service | ce creates value | e for my | Total Answ | 3 4 4.0 er (0-4) 4 4 |
| A1 It is a Common Salva | outcome pany & net pany & net pany & net pany & net pany & net pany & net proving cu proving qu pro | of the ser work, for come acceleration isks ality mation stomers ning and in etworking hieve the e improve mance of the resources ns fast en pes not recess are been | required to a ough. | ganizations iness objectives / perform the tastore value of the tool/service? chieve the objectives with the servy steps to achieve the result. company/ network. | twork. The service | ce creates value | e for my | Total Answ | 3 4 4.0 er (0-4) 4 4 4 |
| A1 It is a Common Commo | outcome pany & net pany & net pany & net pany & net proving costs proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring infor proving qu paring qu p | of the ser work, for come acceleration isks allity mation stomers ning and in etworking hieve the e improve mance of the resources ns fast en pes not recess are ben ructure all | required to a ough. | ganizations ness objectives / perform the tas ore value of the tool/service? chieve the objectives with the se | twork. The service | ce creates value | e for my | Total Answ | 3 4 4.0 er (0-4) 4 4 4 4 |
| A1 It is a com | outcome npany & net ving costs creasing in ving time, i creasing in proving qu aring infor racting cus oosting lear pporting n. easy to ac at could be cy - perform service ru service ru service de the function service st at could be | of the ser work, for come acceleration isks allity mation stomers ning and in etworking hieve the e improve | required to a ough. | ganizations iness objectives / perform the tastore value of the tool/service? chieve the objectives with the selectives to achieve the result. company/ network. | twork. The service | ce creates value | e for my | Total Answ | 4.0 er (0-4) 4 4 4 4 |
| A1 It is a common commo | outcome npany & net ving costs creasing in ving time, i creasing in proving qu aring inforur aracting cus oosting lear pporting n, easy to ac at could be service ru service ru service ru service st at could bis andability/s | of the ser work, for come acceleration isks allity mation stomers ning and in etworking hieve the e improve | required to a ough. | ganizations iness objectives / perform the tastore value of the tool/service? chieve the objectives with the selectives to achieve the result. company/ network. | twork. The service | ce creates value | e for my | Total Answ | 3 4 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 |
| A1 It is a community of the community of | outcome pany &nel ving costs creasing rin ving time, coreasing rin ving time, coreasing rin proving qu aring infon cracting cus costing lear porting ne easy to ac at could be cy - perform stion time and ri service dr he function service st at could be andability/s stion | of the ser- work, for come acceleratii isks ality mation stomers ning and i etworking hieve the e improve improve ins fast en uses not recess are ben ructure all e improve implicity) | revice is imporexample by In processes Innovation with other ordinary planned busing busined to make meesurice) required to a ough, quire too man reficial for my lows flexible 8 and to make meesurices. | ganizations ness objectives / perform the tas nore value of the tool/service? chieve the objectives with the se ny steps to achieve the result. company/ network. A fast performance of the tasks. nore value of the tool/service? | twork. The servicesks with the service are reason | ice. | e for my | Total Answ Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 9 9 9 9 9 |
| A1 It is a common commo | outcome pany &net ving costs creasing in ving time, , creasing rin proving qu arring infon creating cu costing lear pporting ne easy to ac at could be service ru service de the functior service st at could be andability/s stion service st | of the ser- work, for come acceleration acceleration sks ality mation stomers ning and in etworking hieve the enders in the services ins fast en ones not receive are been ructure all enders implicity) ructure are | required to a ough. quire too manke melecial for my ows flexible & ed to make m | ganizations ness objectives / perform the tastore value of the tool/service? chieve the objectives with the service to achieve the result. company/ network. It fast performance of the tasks. | twork. The servicesks with the service are reasonand recognizable. | ice. | e for my | Total Answ Total Answ | 3 4 4.0 er (0-4) 4 4 4 4 4 4 9 1 3.0 er (0-4) 3 |
| A1 It is a common commo | outcome pany &net ving costs creasing in ving time, , creasing rin proving qu arring infon creating cu costing lear pporting ne easy to ac at could be service ru service de the functior service st at could be andability/s stion service st | of the ser- work, for come acceleration acceleration sks ality mation stomers ning and in etworking hieve the enders in the services ins fast en ones not receive are been ructure all enders implicity) ructure are | required to a ough. quire too manke melecial for my ows flexible & ed to make m | ganizations ness objectives / perform the tas nore value of the tool/service? chieve the objectives with the se ny steps to achieve the result. company/ network. A fast performance of the tasks. nore value of the tool/service? | twork. The servicesks with the service are reasonand recognizable. | ice. | e for my | Total Answ Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 9 9 9 9 9 |
| A1 It is a communication of the communication of th | outcome pany &net ving costs creasing in ving time, a creasing rin proving qu aring infon racting cue easy to ac at could be service ru service ru service st at could be andability/s stion service st concepts | of the ser- work, for come acceleration acceleration sks ality mation stomers ning and in etworking hieve the enterprove anne of th esources ns fast en esources ns fast en esource all enterprove implicity) cructure an are under | required to a ough. quire too manke melecial for my ows flexible & ed to make m | ganizations ness objectives / perform the tas nore value of the tool/service? chieve the objectives with the se ny steps to achieve the result. company/ network. A fast performance of the tasks. Iore value of the tool/service? Ly and self-clear to understand an my organization and in line with | twork. The servicesks with the service are reasonand recognizable. | ice. | e for my | Total Answ Total Answ | 3 4 4.0 er (0-4) 4 4 4 4 4 4 9 3.0 er (0-4) 3 |

| | The recognized to user actions are understandable. The lack and feel is self-evaluations and fellows the | | | | |
|------------|---|--------------|----------|----------|--|
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | 3 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purport actions required. | se of the | 3 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear where required for input. | at is | 3 | | |
| C7 | The output of the service is clear and understandable. | | 3 | | |
| C8 | What could be improved to make more value of the tool/service? | • | | | |
| | | | | | |
| | isfaction & Attractiveness) | Tota | | 3.2 | |
| Ref# D1 | Question The service is attractive to the user. I feel satisfied and comfortable when using the service. | | Answer 4 | (0-4) | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status again. | and starting | 3 | | |
| D3 | The mental workload when using the service is low. | | 2 | | |
| D4 | The service rewards the user also personally | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| - | | | | | |
| _ | rnability, memorability) | Tota | | 3.5 | |
| Ref# | Question | | Answer | (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 3 | | |
| E4 | The service offers sufficient training support. | | 3 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| D: F /U | | T-4- | .1 | 0.4 | |
| Ref# | preparation & maintenance) Question | Tota | Answer | 3.4 | |
| F1 | The take-up of the service does not require high preparation. | | 4 | (0-4) | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| | The data needed by the service exist in my company/network in the proper format and can be easily m | ade | | | |
| F3 | available for the service. | | 1 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 3 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 3 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | - | | | |
| Dim.G (Sui | tability to network/collaborative environment) | Tota | al | 3.5 | |
| Ref# | Question | 1 | Answer | | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | | |
| G3 | The service takes into account safety and security. | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | |
| Results A | Assessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | ess | | TSS Res | sults 14 | |
| TSS Partia | | | | 1 | |
| TSS Fail | | | | U | |
| . 55 7 411 | | | | 9 | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.2 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.4 |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

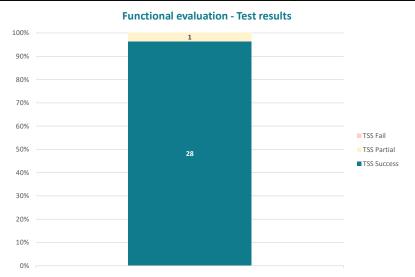
| | Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|---|-------------------|--|---------------------------------|---|
| | Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academic | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| П | Short Description | Visualize advisory information about a car | nart in the Eco-Design Advisory | Daehhoard |

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combimeter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Click the "Eco advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | rectly reported in its dedicated card and is displayed in the appro | priate format | | |
|--|--|---------------|---|----------|
| TSS _{success} 28 | TSS _{partial} 1 | _ | TSS _{fail} | 0 |
| Functionalities | Expected Results | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the Platform | User successfully logged in | YES | | |
| User redirected to home page | Home page correctly opened | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design Module" card | Eco-design dashboard is shown for the selected component | YES | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | | |
| Assess the "Feedback to improve design for disassembly and recycling" table in the "Step 1: Preliminary analysis of the reference design" subsection of the "Reference Design" section | All the relevant feedback is properly displayed for the desired subsection | YES | | |
| Assess the "Eco-design feedback" table in the "Step 1: Preliminary analysis of the reference design" sub- section of the "Reference Design" section | All the relevant feedback is properly displayed for the desired subsection | YES | | |
| Click the "Generate Guidelines" button in the "Step 2: Generation of specific eco-design guidelines and prioritization" sub-section | "Generate guidelines" popup is shown | YES | | |
| Hover the mouse over the info icon next to the guideline ID | A tooltip with the guideline name appears | YES | | |
| Click the info button next to the number of associated feedbacks for "Guideline 10" | A popup with the list of feedbacks associated to "Guideline 10" appears | YES | | |
| Press the "X" button | The feedbacks popup closes | YES | | |
| Select a "Margin of improvement (MI)" and a "Relevance (R)" for each guideline | The "Level of circularity improvement" indicator corresponding to each guideline is computed | YES | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of the new design supported by the advisory" sub-section appears, showing the guidelines radar-chart | YES | | |
| Assess the guidelines radar chart in the "Step 3: Generation of the new design supported by the advisory" sub-section | All relevant information for the desired section is displayed | YES | | |
| Hover the mouse over a point in the guidelines radar chart | A popup showing the "Level of circularity improvement" indicator appears | YES | | |
| Select a guideline from the "Assessment for" dropdown, at the bottom of the guidelines radar chart | The "Associated feedback" and "Advisory" content in the table below change accordingly | YES | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | |
| Move between the "LCA" and "LCC" tabs below the "OPEN SCENARIOS IN GRETA" button | The scenarios radar chart updates accordingly | YES | | |
| Click the "REFRESH" button on the top right of the "Scenarios comparison" section | The scenarios radar chart and comments section refresh | YES | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | | |
| Hover the mouse over a point in the scenarios radar chart | A tooltip with the category value for the selected scenario appears | YES | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | YES | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | |
| Click the "DOWNLOAD" button at the top right of the "Metal Wheel (MARAS)" section | The metal wheel is exported in ".png" format | PARTIAL | Yes, but the quality of the picture is poor | |
| Non-Functional Evaluation | | | • | |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total | 4.0 |
| Ref # Question | | | | er (0-4) |
| | and benefit of the service to my organization/network. | | | 4 |

| 1 | The outcome of the service is important / useful for the company/network. The service creating | es value for my | | | |
|--|--|-------------------------|-------|--|-----|
| | company &network, for example by - saving costs | | | | |
| | - saving costs - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks | | | 4 | |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| | - supporting networking with other organizations | | | 4 | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | 4 | |
| A4 | What could be improved to make more value of the tool/service? | | | | |
| D: D /Eff: | -i | | T-4-1 | | 2.2 |
| | ciency - performance of the service) I Question | | Total | Anguar (0, 4) | 3.8 |
| Ref# | | | | Answer (0-4) 4 | |
| B1 B2 | The time and resources required to achieve the objectives with the service are reasonable/mo | oderate. | | 4 | |
| | The service runs fast enough. | | | | |
| B3 | The service does not require too many steps to achieve the result. | | | 4 | |
| B4 | All the functions are beneficial for my company/ network. | | | 3 | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 | |
| В6 | What could be improved to make more value of the tool/service? | | | | |
| · · · | | | = | | |
| <u> </u> | derstandability/simplicity) | | Total | Ar (0.4) | 4.0 |
| Ref# | Question | | | Answer (0-4) | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | | 4 | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | / | | 4 | |
| C3 | The service offers sufficient guidance | | | 4 | |
| C4 | The responses to user actions are understandable. The look and feel is self explanatory and for | ollows the | | 4 | |
| | TREASURE style. The support to business processes / tasks is clear. The user can understand his/her role and t | the nurnose of the | | | |
| C5 | actions required. | the purpose of the | | 4 | |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is | clear what is | | | |
| C6 | required for input. | Glodi Wilde io | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | | |
| C8 | · | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.8 |
| Ref# | Question | | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| | I can keep the control of the service, for example by pausing& continuing, canceling, saving t | the status and starting | | 2 | |
| D2 | again. | | | 3 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | | | | | |
| | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | 4 | |
| I | , , , | | | 4 | |
| Dim.E (Lea | , , , | | Total | 4 | 3.5 |
| Dim.E (Lea | What could be improved to make more value of the tool/service? | | Total | 4 Answer (0-4) | 3.5 |
| Ref# | What could be improved to make more value of the tool/service? rnability, memorability) | | Total | | 3.5 |
| Ref# | What could be improved to make more value of the tool/service? rnability, memorability) Question | | Total | | 3.5 |
| Ref# E1 | What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. | | Total | Answer (0-4) | 3.5 |
| Ref# E1 E2 | What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. | | Total | Answer (0-4) 4 4 | 3.5 |
| E1 E2 E3 E4 | What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | Total | Answer (0-4) 4 4 3 | 3.5 |
| E1 E2 E3 | What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | Total | Answer (0-4) 4 4 3 | 3.5 |
| E1 E2 E3 E4 E5 | What could be improved to make more value of the tool/service? rnability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. | | Total | Answer (0-4) 4 4 3 | 3.5 |
| E1 E2 E3 E4 E5 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? | | | Answer (0-4) 4 4 3 3 Answer (0-4) | |
| E1 E2 E3 E4 E5 Dim.F (Use | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. | | | Answer (0-4) 4 4 3 3 | |
| E1 E2 E3 E4 E5 Dim.F (Use Ref # | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | | | Answer (0-4) 4 4 3 3 Answer (0-4) | |
| Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? preparation & maintenance) Question The take-up of the service does not require high preparation. | | | Answer (0-4) 4 4 3 3 Answer (0-4) 4 4 | |
| E1 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. | | | Answer (0-4) 4 3 3 3 Answer (0-4) 4 4 2 | |
| Ref # E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 | |
| E1 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | | Answer (0-4) 4 3 3 3 Answer (0-4) 4 4 2 | |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 | |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref # F1 F2 F3 F4 F5 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 | |
| E1 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 | |
| E1 | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 | |
| Ef # | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 | |
| E1 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 | |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref# F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. | | | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 4 | |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref# F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 | 3.6 |
| Ref # | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 4 | 3.6 |
| Ref # | What could be improved to make more value of the tool/service? Inability, memorability) Question It is easy to start using the service and to perform the main tasks. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Tability to network/collaborative environment) | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 4 4 4 4 4 | 3.6 |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref# F1 F2 F3 F6 F7 F8 F9 F10 Dim.G (Sui Ref# G1 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 4 Answer (0-4) Answer (0-4) | 3.6 |
| Ref# E1 E2 E3 E4 E5 Dim.F (Use Ref# F1 F2 F3 F6 F7 F8 F9 F10 Dim.G (Sui Ref# G1 G2 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 2 2 4 4 4 4 4 4 4 4 4 | 3.6 |
| Ref # E1 E2 E3 E4 E5 Dim.F (Use F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 G3 | What could be improved to make more value of the tool/service? It is easy to start using the service and to perform the main tasks. It is easy to learn new features/ functionalities. When coming back to an unfinished task, it is easy to remember / identify the actions needed. The service offers sufficient training support. What could be improved to make more value of the tool/service? Preparation & maintenance) Question The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? In service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | | Total | Answer (0-4) 4 4 3 3 3 Answer (0-4) 4 4 4 4 4 4 4 4 Answer (0-4) Answer (0-4) 4 4 4 4 4 4 4 4 4 4 3 | 3.6 |

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 28 |
| TSS Partial | 1 |
| TSS Fail | 0 |



| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.5 |
| Dim.F (Use preparation & maintenance) | 3.6 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |







TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform |
|-------------------|---|-----------------------------------|--|
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description | Visualize basic dismantling information at | out a car part in the Disassembla | hility Dachboard |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

actions required.

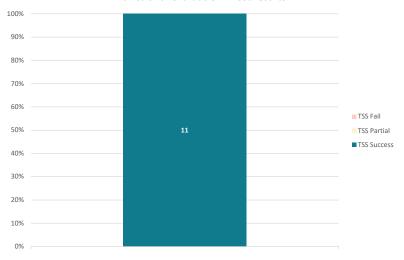
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the

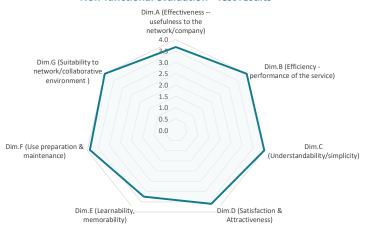
| | | rectly reported in its dedicated card and is displayed in the appro | priate format | | |
|---|--|--|-----------------|-----------------------|--|
| | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} | 0 |
| Functionali | ities | Expected Results | Passed | Remarks | |
| Access to th | he Circularity Web Platform | Circularity Web Platform shows login page | YES | | |
| Login to the | e Platform | User successfully logged in | YES | | |
| User redired | cted to home page | Home page correctly opened | YES | | |
| Search for " | "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select comp | ponent to visualize | Modules selection page is shown for the selected component | YES | | |
| Click the "O | OPEN DIS" button in the "Disassemblability | Disassembly dashboard is shown for the selected component | 1/=0 | | |
| Module" car | rd | | YES | | |
| Assess com | ponent overall stats section | All relevant information for the desired section is displayed | YES | | |
| Assess "Mat | terials composition" & "Material Costs" pie | All relevant information for the desired section is displayed | 1/=0 | | |
| charts section | ion | | YES | | |
| Assess "Disa | sassembly times (manual)" section | All relevant information for the desired section is displayed | YES | | |
| Assess "Disa | sassembly metrics" section | All relevant information for the desired section is displayed | YES | | |
| Insert desire | ed value into hourly cost input in | The "Disassembly cost (lowerbound", "Disassembly cost" and | | | |
| "Disassembl | plability metrics" section | "Disassembly cost (upperbound)" metrics adjust their values | YES | | |
| | | accordingly | | | |
| Assess "Cob | bot metrics" section | All relevant information for the desired section is displayed | YES | | |
| Assess "Fee | edback for recyclers" section | All relevant information for the desired section is displayed | YES | | |
| Select differ | rent recycling routes from the | The feedback displayed changes depending on the selected route | VEC | | |
| "Disassembl | oly & recycling route" dropdown | | YES | | |
| Press the "A | Add feedback" button | The add feedback popup appears | YES | | |
| | e feedback text, then press the "Add | The feedback is correctly inserted for the currently selected recycling | VEC | | |
| feedback" b | | route | YES | | |
| Assess "com | mponents extraction priority vs | All relevant information for the desired section is displayed | YES | | |
| | y time" section | | IES | | |
| Non-Fund | ctional Evaluation | | | | |
| Dim.A (Effe | ectiveness usefulness to the network/o | ompany) | | Total | 3.7 |
| Ref# | Question | | | Answ | ver (0-4) |
| | It is easy to understand the objective | e and benefit of the service to my organization/network. | | | 4 |
| | | rtant / useful for the company/network. The service creates value | for my | | |
| | company &network, for example by | tank, account of the company, notion in the control of calco value | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| 40 | | , | | | 3 |
| A2 | - decreasing risks | | | | 3 |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | | | | | |
| | - boosting learning and innovation | | | | |
| <u> </u> | - supporting networking with other or | | | | , |
| A3 | - supporting networking with other or It is easy to achieve the planned bus | iness objectives / perform the tasks with the service. | | | 4 |
| | - supporting networking with other or | iness objectives / perform the tasks with the service. nore value of the tool/service? | | | 4 |
| A4 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n | iness objectives / perform the tasks with the service. | d third level o | of disassembly | 4 |
| A4 | - supporting networking with other or It is easy to achieve the planned bus | iness objectives / perform the tasks with the service. nore value of the tool/service? | d third level o | of disassembly Total | 4.0 |
| A4 Dim.B (Effic | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n | iness objectives / perform the tasks with the service. nore value of the tool/service? | d third level c | Total | |
| A4 Dim.B (Effic | supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question] | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an | d third level c | Total | 4.0 |
| A4 Dim.B (Effice Ref # | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) IQuestion The time and resources required to a | iness objectives / perform the tasks with the service. nore value of the tool/service? | d third level c | Total Answ | 4.0 rer (0-4) |
| A4 Dim.B (Effice Ref # B1 B2 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) Question The time and resources required to a The service runs fast enough. | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. | d third level c | Total Answ | 4.0 rer (0-4) 4 4 |
| A4 Dim.B (Efficience) Ref # B1 B2 B3 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. | d third level c | Total Answ | 4.0 rer (0-4) 4 4 4 |
| A4 Dim.B (Efficience) Ref # B1 B2 B3 B4 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an archieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. of company/ network. | d third level o | Total Answ | 4.0 rer (0-4) 4 4 4 4 |
| A4 Dim.B (Efficience) Ref # B1 B2 B3 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. / company/ network. & fast performance of the tasks. | d third level o | Total Answ | 4.0 rer (0-4) 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. o company/ network. a fast performance of the tasks. nore value of the tool/service? | d third level o | Total Answ | 4.0 rer (0-4) 4 4 4 4 |
| A4 Dim.B (Efficience) Ref # B1 B2 B3 B4 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. / company/ network. & fast performance of the tasks. | d third level o | Total Answ | 4.0 rer (0-4) 4 4 4 4 |
| A4 Dim.B (Effic Ref # B1 B2 B3 B4 B5 B6 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. o company/ network. a fast performance of the tasks. nore value of the tool/service? | d third level o | Total Answ | 4.0 rer (0-4) 4 4 4 4 |
| A4 Dim.B (Effic Ref # | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make notice. Gency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible of What could be improved to make not require too make not require too make not require too. | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an achieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. o company/ network. a fast performance of the tasks. nore value of the tool/service? | d third level o | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make notes. Gency - performance of the service) Question The time and resources required to a The service does not require too man All the functions are beneficial for my The service structure allows flexible of What could be improved to make notes the could be improved to make notes | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an archieve the objectives with the service are reasonable/moderate. ny steps to achieve the result. / company/ network. & fast performance of the tasks. nore value of the tool/service? Nothing | d third level o | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # C1 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible of What could be improved to make n derstandability/simplicity) Question The service structure and logic is east | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an archieve the objectives with the service are reasonable/moderate. The service are reasonable/moderate. | d third level o | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # C1 C2 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make n ciency - performance of the service) [Question | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an archieve the objectives with the service are reasonable/moderate. The service are reasonable | d third level o | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # C1 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make notice the performance of the service) Question | iness objectives / perform the tasks with the service. Increase a continuous | | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # C1 C2 C3 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make notice the performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too mare All the functions are beneficial for my The service structure allows flexible of What could be improved to make notice the service structure and logic is east The concepts are understandable for The service offers sufficient guidance. The responses to user actions are understandable to the responses to user actions are understandable to the responses to user actions are understandable to the responses to user actions are understandable to the responses to user actions are understandable to the responses to user actions are understandable to the responses to user actions are understandable to the response to user actions are understandable to the respo | iness objectives / perform the tasks with the service. nore value of the tool/service? Explain the meaning of first, second an archieve the objectives with the service are reasonable/moderate. The service are reasonable | | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Effice Ref # B1 B2 B3 B4 B5 B6 Dim.C (Und Ref # C1 C2 | - supporting networking with other or It is easy to achieve the planned bus What could be improved to make notice the performance of the service) Question | iness objectives / perform the tasks with the service. Increase a continuous | | Total Answ | 4.0 er (0-4) 4 4 4 4 4 4 4 4 4 4 4 4 |

4

| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | 4 | | | |
|------------|---|------------|---------|--|--|
| C7 | The output of the service is clear and understandable. | 4 | | | |
| <u></u> | What could be improved to make more value of the tool/service? | | | | |
| C8 | Nothing | | | | |
| Dim.D (Sat | sfaction & Attractiveness) | Total | 3.6 | | |
| Ref# | Question | Answer (C | 0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | 3 | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and start again. | ing 3 | | | |
| D3 | The mental workload when using the service is low. | 4 | | | |
| D4 | The service rewards the user also personally | 4 | | | |
| D5 | I could recommend the service for other people/organizations. | 4 | | | |
| | What could be improved to make more value of the tool/service? | | | | |
| D6 | Add pictures of the required tool for the di | sassembly | | | |
| Dim.E (Lea | rnability, memorability) | Total | 3.3 | | |
| Ref# | Question | Answer (C | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | 3 | | | |
| E2 | It is easy to learn new features/ functionalities. | 3 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | 4 | | | |
| E4 | The service offers sufficient training support. | 3 | | | |
| E4 | What could be improved to make more value of the tool/service? | 3 | | | |
| E5 | More explanations per each task | , | | | |
| Dim E (Uso | preparation & maintenance) | Total | 3.9 | | |
| <u> </u> | Question | Answer (0 | | | |
| Ref# F1 | | Allswer (t | | | |
| | The take-up of the service does not require high preparation. | 4 | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | 4 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | 4 | | | |
| F5 | The service can be easily shared in the network. | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | 4 | | | |
| F8 | The service does not require extensive change of business processes. | 4 | | | |
| F9 | The service does not require high maintenance. | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | Thermodynamic rarity vs revenue, it's not clear to me the li | | | | |
| | tability to network/collaborative environment) | Total | 4.0 | | |
| Ref# | Question | Answer (0 | 0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | 4 | | | |
| G3 | The service takes into account safety and security. | 4 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | |
| | Assessment | | | | |
| Functional | Dimension | | | | |
| TSS Succ | ess | TSS Resu | ults 11 | | |
| TSS Partia | | 1 | U | | |
| TSS Fail | | + | 0 | | |
| 100 1 411 | | <u> </u> | 0 | | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 3.3 |
| Dim.F (Use preparation & maintenance) | 3.9 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| | Test Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | | |
|---|-------------------|---|---------------------|---|--|--|--|
| | Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| ı | Short Description | Assess and export specific information about a car part disassembly time from the Disassemblability Dashboard | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

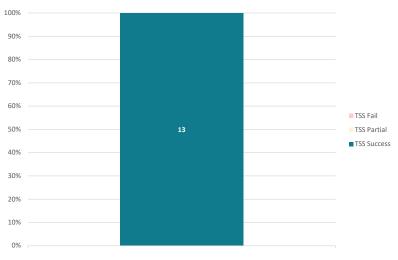
NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

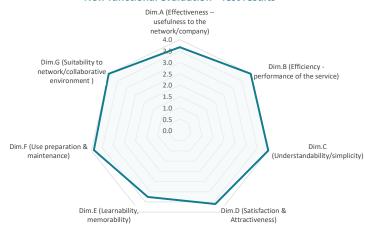
| TSS | success | 13 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 | |
|------------------------------|---------------------------------------|--------------|------------------|--|---------------------|--------------------|-----------------|---------------------|------------------|--|
| Functionali | ties | | | Expected Results | | | Passed | Remarks | | |
| Access to the | ne Circularity We | b Platform | l. | Circularity Web Platform shows log | in page | | YES | | | |
| Login to the | Platform | | | User successfully logged in | | | YES | | | |
| User redired | cted to home pag | ie | | Home page correctly opened | | | YES | | | |
| | combimeter" car | | | List of relevant car parts shows up | | | YES | | | |
| | ponent to visualiz | • | | Modules selection page is shown for | or the selected cor | mponent | YES | | | |
| _ | PEN DIS" button | | sassemblability | Disassembly dashboard is shown for | | | YES | | | |
| | the "Disassembly | | | "Disassembly times (manual)" section | | | | | | |
| | | , | ,, | button next to "Level 1" and "Level | | | YES | | | |
| Press the in | fo button next to | the "Level | 2" metric | Disassembly time (level 2) page is o | correctly shown | | YES | | | |
| Assess the | parts table | | | Parts table correctly displays all the | e relevant informat | tion | YES | | | |
| Press the "In table heade | nfo" button next t | o the "Diffi | iculty level" | "Difficulty level calculation" popup i | s correctly shown | | YES | | | |
| | difficulty level tab | مام | | The difficulty level table contains th | e proper informat | ion | VEC | | | |
| | | | | | le proper imormat | 1011 | YES | | | |
| | Close" ("X") butto | n | | The difficulty level popup closes | 1 116 | | YES | | | |
| | xport" button | | | Data are exported successfully in ". | xisx" format | | YES | | | |
| | ctional Evalu | | | | | | | | | |
| Dim.A (Effe | ectiveness use | fulness to | the network/c | ompany) | | | | Total | 3.7 | |
| Ref# | Question | | | | | | | Answ | ver (0-4) | |
| A1 | It is easy to ur | derstan | d the objective | and benefit of the service to my | organization/ne | twork. | | | 4 | |
| | The outcome | of the se | rvice is impor | tant / useful for the company/net | work. The service | ce creates value | for my | | | |
| | company &net | twork, for | example by | | | | | | | |
| | - saving costs | | | | | | | | | |
| | - increasing in | come | | | | | | | | |
| | - saving time. | accelerat | ing processes | | | | | | | |
| A2 | - decreasing r | | 31 | | | | | | 3 | |
| 7,2 | - improving qu | | | | | | | | Ĭ | |
| | - sharing infor | - | | | | | | | | |
| | | | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | - boosting lear | - | | | | | | | | |
| 4.2 | | | with other org | | | | | | 4 | |
| A3 | | | | iness objectives / perform the tas | sks with the serv | ice. | | | 4 | |
| A4 | what could b | e improv | ed to make m | ore value of the tool/service? | | | 141111 | 6.1: | | |
| D: D (Eff. | <u> </u> | | | Explaii | n the meaning o | f first, second an | a tnira ievei d | • | | |
| | ciency - perform | nance of ti | ne service) | | | | | Total | 4.0 | |
| 1 | Question | | | | | | | Answ | ver (0-4) | |
| B1 | | | | chieve the objectives with the se | rvice are reasor | nable/moderate. | | | 4 | |
| B2 | The service ru | | | | | | | | 4 | |
| B3 | | | <u> </u> | y steps to achieve the result. | | | | | 4 | |
| B4 | | | | company/ network. | | | | 4 | | |
| B5 | The service st | ructure a | llows flexible 8 | k fast performance of the tasks. | | | | | 4 | |
| В6 | What could be | e improv | ed to make m | ore value of the tool/service? | | nothing | | | | |
| Dim C (Und | l lerstandability/s | implicity) | | | | nouning | | Total | 4.0 | |
| | Question | implicity) | | | | | | | 4.0 ver (0-4) | |
| C1 | | ructure a | nd logic is eas | y and self-clear to understand ar | nd recognizable. | | | | 4 | |
| C2 | • . | | | ninology | | | 4 | | | |
| C3 | | | cient guidance | , , | | | | | 4 | |
| C4 | | s to user a | | derstandable. The look and feel i | s self explanato | ry and follows th | е | | 4 | |
| C5 | | busines | s processes / t | asks is clear. The user can unde | erstand his/her ro | ole and the purpo | ose of the | | 4 | |
| | a a a a a a a a a a a a a a a a a a a | | | | | | | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear w | that is | | | | |
|---------------------|--|-----------------------|----------------------|--------------|-----|--|
| C6 | required for input. | viiat is | 4 | | | |
| C7 | The output of the service is clear and understandable. | | | 4 | | |
| C8 | What could be improved to make more value of the tool/service? | | | | | |
| Co | nothing | | | | | |
| Dim.D (Sat | isfaction & Attractiveness) | | Total | | 3.6 | |
| Ref# | Question | | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the statuagain. | us and starting | | 3 | | |
| D3 | The mental workload when using the service is low. | | | 4 | | |
| D4 | The service rewards the user also personally | | | 4 | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | |
| | Add pictures of the required to | ol for the disassem | nbly | | | |
| • | rnability, memorability) | | Total | | 3.3 | |
| Ref# | Question | | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 3 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 3 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | |
| E4 | The service offers sufficient training support. | | | 3 | | |
| E5 | What could be improved to make more value of the tool/service? | 1.4.1 | | | | |
| · F/II | More explanations pe | er each task | T () | | | |
| | preparation & maintenance) Question | | Total | Answer (0-4) | 3.9 | |
| <u>tef#</u> | The take-up of the service does not require high preparation. | | | 3 | | |
| F2 | Technical installation does not require night preparation. Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| ГZ | The data needed by the service exist in my company/network in the proper format and can be easily | mada | | - | | |
| F3 | available for the service. | made | | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. What could be improved to make more value of the tool/service? | | | 4 | | |
| F10 | Thermodynamic rarity vs revenue, it's not clear | to me the limit val | use that you can get | | | |
| im G (Sui | tability to network/collaborative environment) | to the the little van | Total | | 4.0 | |
| ef# | IQuestion | | Total | Answer (0-4) | 4.0 | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | | |
| G3 | The service takes into account safety and security. | | | 4 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | | |
| Results A | Assessment | | | | | |
| | | | | | | |
| unctional | Dimension | | | | | |
| unctional | Dimension | Ţ | | TSS Results | | |
| | | | | TSS Results | | |
| Functional TSS Succ | ess | | | TSS Results | 1; | |





| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | |
| Dim.E (Learnability, memorability) | 3.3 | | | |
| Dim.F (Use preparation & maintenance) | 3.9 | | | |
| Dim.G (Suitability to network/collaborative environment) | 4.0 | | | |
| | Total | | | |
| | 3.8 | | | |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|-------------------|---|---------------------|--|--|--|--|
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academic | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description | Visualize basic eco-design information about a car part in the Eco-Design Dashboard | | | | | |

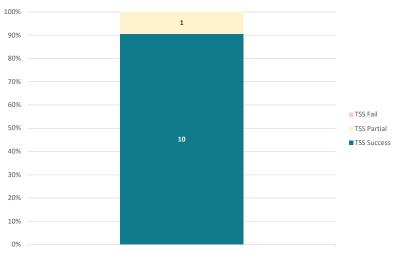
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

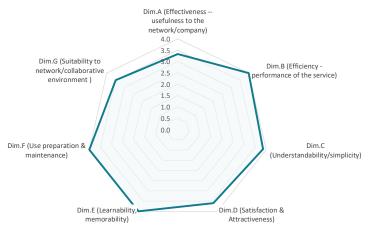
| | S _{success} 10 | TSS _{partial} 1 | | TSS _{fail} | 0 | | |
|-----------------------------|--|--|----------|--|----------------|--|--|
| Functionali | | Expected Results | Passed | Remarks | Ť | | |
| Access to the | ne Circularity Web Platform | Circularity Web Platform shows login page | YES | | | | |
| Login to the | Platform | User successfully logged in | YES | | | | |
| User redire | cted to home page | Home page correctly opened | YES | | | | |
| | 'combimeter" car part | List of relevant car parts shows up | YES | | | | |
| | ponent to visualize | Modules selection page is shown for the selected component | YES | | | | |
| Click the "C Module" car | PEN ECO" button in the "Eco-Design rd | Eco-design dashboard is shown for the selected component | YES | | | | |
| Assess com | Assess component overall stats section All relevant information for the desired section is displayed | | | | | | |
| | 5 metals" section | All relevant information for the desired section is displayed | PARTIAL | by thermodinamic rarity AI and Ag are to | well displayed | | |
| right of the | | All relevant information for the desired section updates accordingly | YES | | | | |
| thermodyna | nouse over the info icon next to the "By amic rarity" sub-section title | A tooltip explaining the sub-title meaning appears | YES | | | | |
| Assess the | "Plastic characterization" section | All relevant information for the plastics characterization pie chart is displayed, the plastic characterization KPIs are displayed correctly | YES | | | | |
| Assess the | "Disassemblability metrics" section | The appropriate disassemblability metrics are shown | YES | | | | |
| Assess the | "Eco-Design recommendations" | The proper eco-design recommendations are displayed coherently with the metrics above | YES | | | | |
| section | "Semantic Social Network Analysis" | The SSNA tool description is clear and understandable | YES | | | | |
| | pen documentation" button | The SSNA tool documentation opens in a new tab | YES | | | | |
| | pen SSNA Tool" button | The SSNA tool opens in a new tab | YES | | | | |
| | ctional Evaluation | | | | | | |
| | ectiveness usefulness to the network/ | company) | | Total | 3.3 | | |
| Ref# | Question | | | Ansv | wer (0-4) | | |
| A1 | It is easy to understand the objective | e and benefit of the service to my organization/network. | | | 3 | | |
| | The outcome of the service is impo | ortant / useful for the company/network. The service creates value | e for my | | | | |
| | company &network, for example by | | • | | | | |
| | - saving costs | | | | | | |
| | - increasing income | | | | | | |
| | - saving time, accelerating processe | s | | | | | |
| A2 | - decreasing risks | | | | 4 | | |
| | - improving quality | | | | | | |
| | - sharing information | | | | | | |
| | - attracting customers | | | | | | |
| | - boosting learning and innovation | | | | | | |
| <u> </u> | - supporting networking with other o | | | | 0 | | |
| A3 | | siness objectives / perform the tasks with the service. | | | 3 | | |
| A4 | What could be improved to make i | more value of the tool/service? | | | | | |
| Dim P /Eff: | olonov norformance of the new- | | | Total | 1 40 | | |
| _ | ciency - performance of the service) | | | Total | 4.0 | | |
| Ref# B1 | Question The time and resources required to | achieve the objectives with the service are reasonable/moderate. | | Ansv | wer (0-4) 4 | | |
| B2 | The service runs fast enough. | | | | 4 | | |
| B3 | The service does not require too ma | ny steps to achieve the result. | | | 4 | | |
| B4 | All the functions are beneficial for m | y company/ network. | | | 4 | | |
| B5 | The service structure allows flexible | & fast performance of the tasks. | | | 4 | | |
| В6 | What could be improved to make I | more value of the tool/service? | | | | | |
| Dim.C (Unc | derstandability/simplicity) | | | Total | 3.9 | | |
| Ref# | Question | | | Ansv | wer (0-4) | | |
| C1 | | sy and self-clear to understand and recognizable. | | | 4 | | |
| C2 | · | r my organization and in line with TREASURE terminology | | | 4 | | |
| C3 | The service offers sufficient guidance | , 0 | | | 4 | | |
| | · · | nderstandable. The look and feel is self explanatory and follows the | ne | | | | |
| C4 | TREASURE style. | · · | | | 4 | | |
| _ | | | | | | | |

| | TT | 6.0 | | | |
|------------------------|--|-------------------|-------|------------|--|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the puactions required. | | 4 | | |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | r what is | | | |
| C6 | required for input. | Wildtis | | 4 | |
| C7 | The output of the service is clear and understandable. | | | 3 | |
| | What could be improved to make more value of the tool/service? | <u> </u> | | | |
| C8 | · · · · · · · · · · · · · · · · · · · | | | | |
| Dim.D (Sa | tisfaction & Attractiveness) | | Total | 3.6 | |
| Ref# | Question | | Ansv | ver (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 3 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stagain. | atus and starting | | 3 | |
| D3 | The mental workload when using the service is low. | | | 4 | |
| D4 | The service rewards the user also personally | | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| 50 | What could be improved to make more value of the tool/service? | | | | |
| D6 | | | | | |
| Dim.E (Lea | arnability, memorability) | | Total | 4.0 | |
| Ref# | Question | <u> </u> | Ansv | ver (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| | What could be improved to make more value of the tool/service? | | | | |
| E5 | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | 4.0 | |
| Ref# | Question | | Ansv | ver (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | |
| F0 | The data needed by the service exist in my company/network in the proper format and can be easi | ly made | | | |
| F3 | available for the service. | · | 4 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | 4 | | | | |
| F 10 | 4 | | | | |
| Dim.G (Su | itability to network/collaborative environment) | | Total | 3.5 | |
| Ref# | Question | | Ansv | ver (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 3 | |
| G3 | The service takes into account safety and security. | | | 3 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| • | | | | | |
| | Assessment | | | | |
| Results | | | | | |
| Results | Assessment | | TSS | Results | |
| Results . Functiona | Assessment I Dimension | | TSS | Results 1 | |
| Results | Assessment I Dimension Jess | | TSS | Results 10 | |
| Results Functiona | Assessment I Dimension Jess | | TSS | Results 10 | |





| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.3 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.8 | | | | |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform |
|-----------------|--|---------------------|--|
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academic | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| 01 (D : :: | | 4 4 1 1 1 11 5 | (: 4, 5, B, :, B, !) |

Short Description Assess and export specific information about material composition for a car part in the Eco-Design Dashboard

Test Script

1. Access the TREASURE Circularity Web Platform.

- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03)
 Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| TSS _{success} 12 | TSS _{partial} | 1 | | TSS _{fail} | | 0 |
|--|--|---|------------------|---------------------|--|---------------|
| Functionalities | Expected Results | | | Passed | Remarks | |
| Access to the Circularity Web Platform | Circularity Web Platform shows log | Circularity Web Platform shows login page | | YES | | |
| Login to the Platform | User successfully logged in | | | YES | | |
| User redirected to home page | Home page correctly opened | | | YES | | |
| Search for "combimeter" car part | List of relevant car parts shows up | | | YES | | |
| Select component to visualize | Modules selection page is shown for | or the selected co | mponent | YES | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for | the selected com | ponent | YES | | |
| Navigate to the "By weight" sub-section of the "Top section of the "Top section" | , | | | YES | | |
| Press the "Details" button above the corresponding stacked bar chart | "Metals by weight" page is correctly shown | | YES | | | |
| Select a filtering method from the dropdown menu next to "Show" | Metals table correctly displays all the for the user selection | ne relevant inform | ation accounting | YES | | |
| Select a filtering method from the dropdown menu next to "Assess" | Metals table correctly displays all the for the user selection | ne relevant inform | ation accounting | YES | | |
| Assess the "Metals by weight" table | Metals table correctly displays all the selected filtering methods | ne relevant inform | ation for the | YES | | |
| Hover the mouse over the info icon next to the "Shar over the total weight", "Supply risk" and "SMI" table column titles | A tooltip explaining the table colum | in title meaning ap | ppears | YES | | |
| Press the "Export" button | Data are exported successfully in ". filters | xlsx" format, follo | wing the applied | PARTIAL | File name is too long and some unit of mea | isure missing |

Non-Functional Evaluation

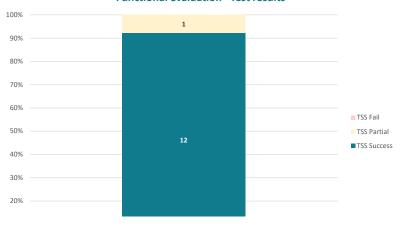
| Dim.A (E | ffectiveness usefulness to the network/company) | | Total 3.7 | | |
|----------|---|--------|-----------|----------|--|
| Ref# | Question | | Answe | er (0-4) | |
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | | | 4 | |
| | The outcome of the service is important / useful for the company/network. The service creates value | for my | | | |
| | company &network, for example by | | | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks | | 3 | | |
| | - improving quality | | | | |
| | - sharing information | | | | |
| | - attracting customers | | | | |
| | - boosting learning and innovation | | | | |
| | - supporting networking with other organizations | | | | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | | | 4 | |
| A4 | What could be improved to make more value of the tool/service? | | | _ | |
| | | | | | |

| Dim.B (Ef | iciency - performance of the service) | Total 3.8 | | | |
|-----------|---|--------------|---|---|--|
| Ref# | Question | Answer (0-4) | | | |
| B1 | The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 4 | | |
| B2 | The service runs fast enough. | | | 4 | |
| B3 | The service does not require too many steps to achieve the result. | | 4 | | |
| B4 | All the functions are beneficial for my company/ network. | | | 3 | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | | 4 | |
| В6 | What could be improved to make more value of the tool/service? | | | | |
| B0 | | | | | |

| Dim.C (Und | derstandability/simplicity) | | Total | 3.9 |
|------------|---|-------|----------|-----|
| Ref# | Question | Answe | er (0-4) | |
| C1 | The service structure and logic is easy and self-clear to understand and recognizable. | | 4 | |
| C2 | The concepts are understandable for my organization and in line with TREASURE terminology | | 4 | |
| | - | | | |

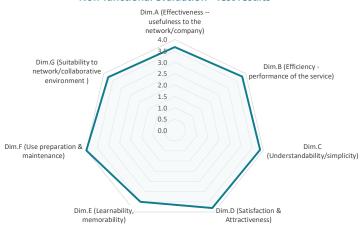
| C3 | The service offers sufficient guidance | | | |
|---|--|---------------------------------------|-------|--|
| | The responses to user actions are understandable. The look and feel is self explanatory and follows the | | | |
| C4 | TREASURE style. | 4 | | |
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. | 4 | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | 4 | | |
| C7 | The output of the service is clear and understandable. | 4 | | |
| | What could be improved to make more value of the tool/service? | | | |
| C8 | | | | |
| Dim.D (Sa | atisfaction & Attractiveness) | Total | 3.8 | |
| Ref# | Question | Answer | (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | 4 | | |
| D3 | The mental workload when using the service is low. | 4 | | |
| D4 | The service rewards the user also personally | 3 | | |
| D5 | I could recommend the service for other people/organizations. | 4 | | |
| | What could be improved to make more value of the tool/service? | | | |
| D6 | That sould be improved to make more value of the took of the took | | | |
| Dim.E (Le | arnability, memorability) | Total | 3.5 | |
| Ref# | [Question] | Answer | | |
| E1 | It is easy to start using the service and to perform the main tasks. | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | 3 | | |
| E4 | The service offers sufficient training support. | 3 | | |
| E5 | What could be improved to make more value of the tool/service? | | | |
| | | = | | |
| | e preparation & maintenance) | Total | 4.0 | |
| Ref# | Question | Answer | | |
| F1 | The take-up of the service does not require high preparation. | 4 | | |
| F2 | | | | |
| | Technical installation does not require specific setups or additional downloads. | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | 4 | | |
| F3 F4 | The data needed by the service exist in my company/network in the proper format and can be easily made | | | |
| | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | 4 | | |
| F4 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. | 4 | | |
| F4 F5 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | 4 4 4 | | |
| F4 F5 F6 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. | 4 4 4 4 | | |
| F4 F5 F6 F7 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | 4 4 4 4 | | |
| F4 F5 F6 F7 F8 F9 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | 4 4 4 4 4 | | |
| F4 F5 F6 F7 F8 F9 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | 4 4 4 4 4 4 | | |
| F4 F5 F6 F7 F8 F9 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service daes not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | 4 4 4 4 4 | | |
| F4 F5 F6 F7 F8 F9 F10 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service dae seasily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | 4 4 4 4 4 4 4 4 Total Answer 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service dae seasily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | 4 4 4 4 4 4 4 4 Total Answer 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service dae be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 Results | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 Results | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 Results Functiona | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service dae be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service usage does not require high negotiation or complex agreements in the network. Assessment In Dimension | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 Results | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Il Dimension | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |
| F4 F5 F6 F7 F8 F9 F10 Dim.G (Su Ref # G1 G2 G3 G4 Results Functiona | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Litability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Il Dimension | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 3.8 | |





| 10% | |
|------|--|
| 1070 | |
| 0% | |
| 0% | |

| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 3.9 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 3.5 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | |
| | Total | | | |
| | 3.8 | | | |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| Test | Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|---------|------------|---|---------------------|--|--|--|--|
| Actors | s involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Chart F | | Minus line hands are colling information of a | 4 ti 4b - D | - hele - and | | | |

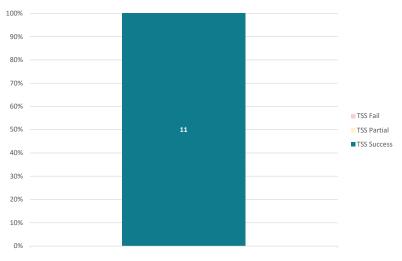
Short Description Visualize basic recycling information about a car part in the Recyclability Dashboard

Test Script

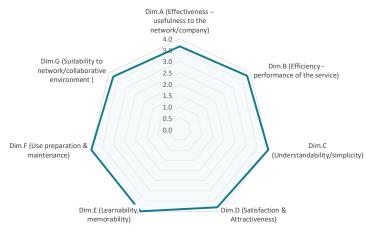
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | that every information expected is com- | | | |
|--|--|---|------------------|---|
| TS | S _{success} 11 | TSS _{partial} 0 | | TSS _{fail} 0 |
| Functional | lities | Expected Results | Passed | Remarks |
| Access to t | the Circularity Web Platform | Circularity Web Platform shows login page | YES | |
| Login to the | e Platform | User successfully logged in | YES | |
| User redire | ected to home page | Home page correctly opened | YES | |
| Search for | "combimeter" car part | List of relevant car parts shows up | YES | |
| Select com | ponent to visualize | Modules selection page is shown for the selected component | YES | |
| | OPEN REC" button in the "Disassemblability | Recyclability dashboard is shown for the selected component | | |
| Module" ca | - | The system of a deliberation of the series of a series of the series of | YES | |
| | nponent overall stats section | All relevant information for the desired section is displayed | YES | |
| | otimization objective of recycling" section | All relevant recycling optimization objectives is displayed | 120 | |
| ,,,,,,,, | January objective of recycling econom | 7 iii Tolovanii Tooyonii g opiiinii Lation objectivee le alopiayea | YES | |
| Assess "Ge | eneral composition build-up" pie chart | All relevant information for the desired section is displayed | | |
| section | moral composition balla ap pio onare | 7 an reference and market for the decired decired decired adplayed | YES | |
| | cycling rates" section | All relevant information for the desired section is displayed with | | |
| | | respect to the current recyclability level | YES | Why does 'infotainment unit' at level 2-total? |
| Select a dif | fferent recycling level using the dropdown | The recycling rates and processing routes change accordingly | | |
| | e top of the section | The recycling rates and proceeding realest change accordingly | YES | |
| | "Individual recycling rates" sub-section | All relevant information for the desired sub-section is displayed with | | |
| , 100000 1110 | marriada rooyomig ratoo cab cocacii | respect to the current recyclability level and processing route | YES | |
| Salact a dif | fferent processing route using the | The individual recycling rates flower chart updates accordingly | 1 | |
| | menu next to the "Details" button. | The individual recycling rates nower chart updates accordingly | PARTIAL | For the steel processing route at level 1 no recycling rates are shown |
| | edback for recyclers" section | All relevant information for the desired section is displayed | | |
| A33033 1 C | edback for recyclers section | All relevant information for the desired section is displayed | YES | |
| Proce the " | Add feedback" button | The add feedback popup appears | | |
| 1 1000 the 7 | Add Icedback Batton | The add leedback popul appears | YES | |
| Insert some | e feedback text, then press the "Add | The feedback is correctly inserted into the feedbacks table | t | |
| feedback" b | | The recapacity inserted into the recapacite table | YES | The comment can't be delete |
| Non-Fun | nctional Evaluation | | | |
| | ectiveness usefulness to the network/co | omnany) | | Total 3.7 |
| <u> </u> | Question | | | Answer (0-4) |
| | | | | |
| A1 | | and benefit of the service to my organization/network. | , | 4 |
| | · · | tant / useful for the company/network. The service creates valu | e for my | |
| | company &network, for example by | | | |
| | saving costs | | | |
| | • | | | |
| | - increasing income | | | |
| | - increasing income - saving time, accelerating processes | | | |
| A2 | - increasing income | | | 3 |
| A2 | - increasing income - saving time, accelerating processes | | | 3 |
| A2 | increasing incomesaving time, accelerating processesdecreasing risks | | | 3 |
| A2 | increasing income saving time, accelerating processes decreasing risks improving quality | | | 3 |
| A2 | increasing income saving time, accelerating processes decreasing risks improving quality sharing information | | | 3 |
| A2 | increasing income saving time, accelerating processes decreasing risks improving quality sharing information attracting customers | _{janizations} | | 3 |
| A2 A3 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organic | panizations hess objectives / perform the tasks with the service. | | 3 |
| A3 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organic | ness objectives / perform the tasks with the service. | | |
| | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busing What could be improved to make me | ness objectives / perform the tasks with the service. ore value of the tool/service? | als based on th | 4 |
| A3 A4 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busing What could be improved to make meaning times. | ness objectives / perform the tasks with the service. | als based on th | 4 ne content to estimate the potential revenues |
| A3 A4 Dim.B (Effi | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busin What could be improved to make monocidency - performance of the service) | ness objectives / perform the tasks with the service. ore value of the tool/service? | als based on th | the content to estimate the potential revenues Total 3.8 |
| A3 A4 Dim.B (Effi | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busin What could be improved to make more controlled to the service Conrider or performance of the service) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the materia | als based on th | the content to estimate the potential revenues Total 3.8 Answer (0-4) |
| A3 A4 Dim.B (Effi Ref # | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other order order to be considered to be considered to make an expensive to the service) What could be improved to make an expensive to the service of the service of the service or the service of the serv | ness objectives / perform the tasks with the service. ore value of the tool/service? | als based on th | the content to estimate the potential revenues Total 3.8 Answer (0-4) 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busin What could be improved to make m Conr iciency - performance of the service) Question The time and resources required to accept the service runs fast enough. | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. | als based on th | 4 ne content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 |
| A3 A4 Dim.B (Effi Ref # | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other order order to be considered to be considered to make an expensive to the service) What could be improved to make an expensive to the service of the service of the service or the service of the serv | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. | als based on th | the content to estimate the potential revenues Total 3.8 Answer (0-4) 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busin What could be improved to make m Conr iciency - performance of the service) Question The time and resources required to accept the service runs fast enough. | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. by steps to achieve the result. | als based on th | 4 ne content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busin What could be improved to make m Conr iciency - performance of the service) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. | als based on th | 4 ne content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busin What could be improved to make mecons Conr Conr Ciciency - performance of the service) Question The time and resources required to ach The service does not require too many All the functions are beneficial for my The service structure allows flexible & | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. | als based on th | Total Answer (0-4) 4 4 4 4 4 4 4 4 3 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busin What could be improved to make more considered by the could be improved to make more considered by the could be improved to make more considered by the considered by the service of the service) Question The time and resources required to act the service does not require too many all the functions are beneficial for my | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. | als based on th | Total Answer (0-4) 4 4 4 4 4 4 4 4 3 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busin What could be improved to make more time and resources required to achieve the planned busin Conreciency - performance of the service) [Question The time and resources required to achieve the service runs fast enough. The service does not require too many All the functions are beneficial for my The service structure allows flexible & What could be improved to make me | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. | als based on th | de content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 4 4 3 4 |
| A3 A4 Dim. B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busin What could be improved to make more considered to the service of the service of the service of the service runs fast enough. The service does not require too many All the functions are beneficial for my The service structure allows flexible & What could be improved to make moderstandability/simplicity) | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. | als based on th | Total Answer (0-4) 4 4 4 4 4 4 4 4 4 7 Total Answer (1-4) 4 4 4 4 4 4 4 4 4 4 4 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une Ref # | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orc It is easy to achieve the planned busin What could be improved to make meaning to the planned of the service of the service of the service of the service of the service runs fast enough. The service does not require too many All the functions are beneficial for my The service structure allows flexible & What could be improved to make meaning the service of t | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? | als based on th | 4 ne content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 4 4 3 4 7 Total 4.0 Answer (0-4) |
| A3 A4 Dim. B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orc It is easy to achieve the planned busin What could be improved to make meaning to the planned of the service of the service of the service of the service of the service runs fast enough. The service does not require too many All the functions are beneficial for my The service structure allows flexible & What could be improved to make meaning the service of t | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. | als based on the | 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une Ref # | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other order order of the service of the service of the service) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? | als based on th | 4 ne content to estimate the potential revenues Total 3.8 Answer (0-4) 4 4 4 4 3 4 7 Total 4.0 Answer (0-4) |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other order order of the service of the service of the service) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? | als based on th | 4 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Unc Ref # C1 C2 | - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busin What could be improved to make m Conr Iciency - performance of the service) Question The time and resources required to ach The service does not require too many All the functions are beneficial for my The service structure allows flexible & What could be improved to make middle Question The service structure and logic is easy The service offers sufficient guidance | ness objectives / perform the tasks with the service. ore value of the tool/service? nection of the recycling rates with economic value of the material chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? | | 4 |

| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the pur | pose of the | | 4 |
|--|---|-----------------|----------|--|
| - 00 | actions required. | | | · |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear to | what is | | 4 |
| | required for input. | | | |
| C7 | The output of the service is clear and understandable. | | | 4 |
| C8 | What could be improved to make more value of the tool/service? | | | |
| | | | | |
| Dim.D (Sat | sfaction & Attractiveness) | | Total | 3.8 |
| Ref# | Question | | Ar | swer (0-4) |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stat | us and starting | | 4 |
| DZ | again. | | | 4 |
| D3 | The mental workload when using the service is low. | | | 4 |
| D4 | The service rewards the user also personally | | | 4 |
| D5 | I could recommend the service for other people/organizations. | | | 3 |
| | What could be improved to make more value of the tool/service? | • | | |
| D6 | · | | | |
| Dim.E (Lea | rnability, memorability) | | Total | 4.0 |
| | Question | ' | Ar | swer (0-4) |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 |
| E2 | It is easy to learn new features/ functionalities. | | | 4 |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 |
| | What could be improved to make more value of the tool/service? | | | · |
| E5 | Triat could be improved to make more value of the tool/service. | | | |
| Dim F (Use | preparation & maintenance) | | Total | 4.0 |
| | Question | · · | | 4.0 Iswer (0-4) |
| | | | | |
| Ref# | | | | |
| F1 | The take-up of the service does not require high preparation. | | A | 4 |
| 1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. | mada | Al | |
| F1 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily | made | | 4 |
| F1 F2 F3 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | | 4 4 4 |
| F1 F2 F3 F4 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. | made | | 4 4 4 4 |
| F1 F2 F3 F4 F5 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | made | | 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. | made | | 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | made | | 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | made | | 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | made | | 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | made | | 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | made | | 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) | made | Total | 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) | made | Total | 4 4 4 4 4 4 4 4 4 4 5 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | made | Total | 4 4 4 4 4 4 4 4 4 4 3.8 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | made | Total | 4 4 4 4 4 4 4 4 4 4 3.8 iswer (0-4) |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | made | Total | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. | made | Total | 4 4 4 4 4 4 4 4 4 4 3.8 iswer (0-4) |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suite # G1 G2 G3 G4 | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | made | Total | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaborative environment to support supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | made | Total | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? ability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | made | Total Ar | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 G3 G4 Results A | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaborative environment to support suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Sesessment Dimension | made | Total Ar | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 G3 G4 Results A Functional | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Sesessment Dimension | made | Total Ar | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Sui Ref # G1 G2 G3 G4 Results A Functional | The take-up of the service does not require high preparation. Technical installation does not require specific setups or additional downloads. The data needed by the service exist in my company/network in the proper format and can be easily available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Sesessment Dimension | made | Total Ar | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |



| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.8 | | | |
| | Total | | | |
| | 3.9 | | | |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | | | |
|--|---|---------------------|--|--|--|--|
| Actors involved | Nicolò Maria Ippolito (UNIVAQ) technical/academy | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Assess specific information shout individual recycling rates for a car part in the Recyclability Deshboard | | | | | | |

Short Description Assess specific information about individual recycling rates for a car part in the Recyclability Dash

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

required for input.

The output of the service is clear and understandable.

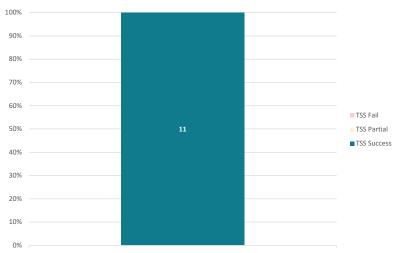
What could be improved to make more value of the tool/service?

- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.
- 6. Click the "Details" button net to the recycling routes dropdown menu.
- 7. Assess that all the recycling rates for the selected recycling level and recycling route are present and correct

| 7. Assess | that all the recyc | ling rates | for the selec | cted recycling level and recyc | ling route are pro | esent and correct. | | | | |
|--------------|--|--------------|----------------------|------------------------------------|-----------------------|-----------------------|----------------|-------------------------------|---------------------------------------|--------------------|
| TS | S _{success} | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
| Functiona | lities | | | Expected Results | | • | Passed | Remarks | | |
| Access to t | the Circularity Web | Platform | | Circularity Web Platform shows | login page | | YES | | | |
| Login to the | | | | User successfully logged in | | | YES | | | |
| - | ected to home page | | | Home page correctly opened | | | YES | | | |
| | "combimeter" car p | | | List of relevant car parts shows | up | | YES | | | |
| | ponent to visualize | | | Modules selection page is show | • | component | YES | | | - |
| | OPEN REC" button | | cyclability | Recyclability dashboard is show | | • | YES | | | |
| | the "Individual rec | | | "Individual recycling rates" sub- | | | 123 | | | |
| | section of the "Recycling rates" section | | 33 345 | section is present and has a "De | | , , | YES | | | |
| | | | routes dropdown menu | | , | | | | | |
| Press the " | Details" button next | to the red | cycling routes | "Individual recycling rates" page | is correctly show | n | | | | |
| dropdown | menu | | | | | | YES | | | |
| Select a re | cyclability level from | n the top- | right | Recycling rates table correctly of | displays all the rele | evant information | | | | |
| dropdown | | | Ü | accounting for the user selection | | | YES | | | |
| Select a re | cycling route from | the secon | d dropdown | Recycling rates table correctly of | displays all the rele | evant information | | | | |
| menu on th | | | | accounting for the user selection | | | YES | | | |
| Assess the | "Rates by recycling | route" ta | ble | Recycling rates table correctly of | displays all the rele | evant information for | <u> </u> | | | |
| | | , | | the selected recyclability level a | | | YES | | | |
| Non-Eur | nctional Evalua | tion | | | | | | | | |
| | | | the network/s | omnany) | | | | Total | | 2.7 |
| <u> </u> | Dim.A (Effectiveness usefulness to the network/o | | | ompany) | | | | Total | . (2.1) | 3.7 |
| Ref# | Question | | | | | | | | Answer (0-4) | |
| A1 | | | | and benefit of the service to | | | | | 4 | |
| | | | | tant / useful for the company/ | network. The ser | rvice creates value | e for my | | | |
| | company &netv | vork, for e | example by | | | | | | | |
| | | saving costs | | | | | | | | |
| | increasing inc | ome | | | | | | | | |
| | - saving time, a | cceleratir | ng processes | | | | | | | |
| A2 | - decreasing ris | ks | | | | | | | | |
| | - improving qua | lity | | | | | | | | |
| 1 | - sharing inform | ation | | | | | | | | |
| | - attracting cust | omers | | | | | | | | |
| | - boosting learn | ing and i | nnovation | | | | | | | |
| | - supporting net | working | with other or | ganizations | | | | | | |
| A3 | It is easy to ach | ieve the | planned busi | iness objectives / perform the | tasks with the se | ervice. | | | 4 | |
| | What could be | improve | d to make m | ore value of the tool/service | ? | | | | | |
| A4 | | | | rates with economic value of | | ased on the conter | nt to estimate | the potential revenues, expla | in which kind of trea | atment can be used |
| Dim B (Fff | iciency - performa | | , , | , | | | 1 | Total | | 3.8 |
| Ref# | IQuestion | | | | | | | 10141 | Answer (0-4) | 5.0 |
| | | cources | required to a | chieve the objectives with the | service are rest | conable/moderate | | | 4 | |
| B1 | | | | chieve the objectives with the | service are reas | ou iable/HIOUEI ate. | | + | 4 | |
| B2 | The service run | | - | | | | | ļ | · · · · · · · · · · · · · · · · · · · | |
| B3 | | | | y steps to achieve the result. | | | | | 4 | |
| B4 | + | | | company/ network. | | | | | 3 | |
| B5 | The service stru | cture all | ows flexible 8 | k fast performance of the task | s. | | | | 4 | |
| В6 | What could be | improve | d to make m | ore value of the tool/service | ? | | | | | |
| D0 | | | | | | | | | | |
| Dim.C (Un | derstandability/sir | nplicity) | | | | | | Total | | 4.0 |
| Ref# | Question | / | | | | | | | Answer (0-4) | |
| C1 | | icture an | d logic is eas | y and self-clear to understand | l and recognizat | ole | | | 4 | |
| C2 | + | | | my organization and in line w | | | | | 4 | |
| | + | | | , , | IN INCASURE TO | eminology | | | 4 | |
| C3 | The service offe | | _ | | al in a alf | | | | 4 | |
| C4 | | | ctions are un | derstandable. The look and fe | ei is seit explana | atory and follows th | ie | | 4 | |
| <u> </u> | TREASURE styl | | | T: 1 T: | 1 1 111 6 | 1 10 | 6.11 | ļ | | |
| C5 | | | processes / t | asks is clear. The user can ur | iderstand his/her | r role and the purp | ose of the | | 4 | |
| | actions required | | | | | | | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear with the complex to perform the com | | | | nat is | | 4 | | | |

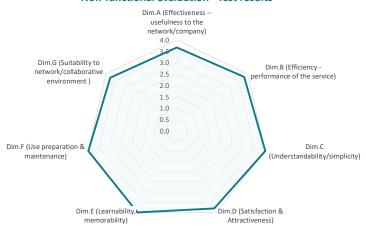
4

| m.D (Sat | isfaction & Attractiveness) | Total | | 3.8 |
|-----------|--|-------|--------------|-----|
| f # | Question | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting | | 4 | |
| DZ | again. | | 4 | |
| D3 | The mental workload when using the service is low. | | 4 | |
| D4 | The service rewards the user also personally | | 4 | |
| D5 | I could recommend the service for other people/organizations. | | 3 | |
| D6 | What could be improved to make more value of the tool/service? | | | |
| | | | | |
| | rnability, memorability) | Total | | 4.0 |
| <u> </u> | Question | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | |
| E4 | The service offers sufficient training support. | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | |
| | | | | |
| n.F (Use | preparation & maintenance) | Total | | 4.0 |
| f# | Question | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made | | 4 | |
| | available for the service. | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | |
| F5 | The service can be easily shared in the network. | | 4 | |
| F6 | The service does not require specific knowledge from the users. | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | 4 | |
| F8 | The service does not require extensive change of business processes. | | 4 | |
| F9 | The service does not require high maintenance. | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | |
| | _ | | | |
| | tability to network/collaborative environment) | Total | | 3.8 |
| # | Question | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | 3 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | |
| G3 | The service takes into account safety and security. | | 4 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | |
| esults A | Assessment | | | |
| nctional | Dimension | | | |
| | | | TSS Results | |
| SS Succ | ess | | | |
| JO Oucc | | | | |
| SS Partia | al | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.8 |

| Dim.C (Understandability/simplicity) | 4.0 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.9 |





Actors involved

TREASURE Circularity Web Platform - Disassembly Advisor #1 - Test Sheet

Business: Veronica Antonello (veronica.antonello@txtgroup.com)

Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com)

Test Case References Test Case ID CWP_DIS_ADV_UT_01 Components involved TREASURE Circularity Web Platform

Contact Point

Short Description Visualize advisory information about a car part in the Disassembly Advisory Dashboard

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.

What could be improved to make more value of the tool/service?

Laura del Hoyo (WALTER PACK)

- 4. Click the "OPEN DIS" button in the "Disassembly Module" card.
- 5. Click the "Dis advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

 TSS_{success}

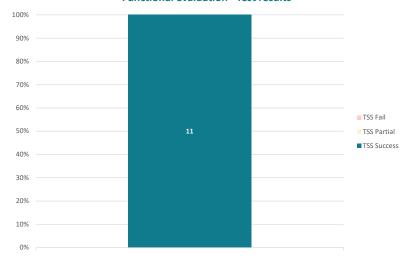
 11

 TSS_{outiel}

 0

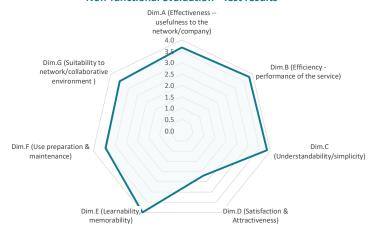
| TS | S _{success} | 11 | | TSS _{partial} | 0 | | | TSS _{fail} | 0 | |
|--|--|--------------|-----------------|---|----------------------|--------------------|-----------------|---|--|--|
| Functional | ities | | | Expected Results | | | Passed | Remarks | | |
| Access to the Circularity Web Platform Circularity Web Platform shows login page | | | | | | YES | | | | |
| Login to the | | | | User successfully logged in | | | YES | | | |
| | cted to home pa | ne | | Home page correctly opened | | | YES | | , | |
| | "combimeter" ca | | | List of relevant car parts shows up | | | YES | | | |
| | ponent to visuali | | | Modules selection page is shown for | or the colocted cor | mnonont | YES | | | |
| | OPEN DIS" butto | | | | | | 163 | | | |
| Module" ca | | n in the Dis | sassemblability | Disassembly dashboard is shown for | or the selected cor | nponent | YES | | | |
| | Dis advisory" link | on the ten | noubor | Discoombly advisor doubboard on | rroatly ananad | | YES | | | |
| | | | | Disassembly advisor dashboard cor | | P 1 1 | TES | | | |
| | ectrical and elect he "Metals to be | | | All relevant information for the desir | rea sub-section is | displayed | YES | | | |
| | e and cost metric | | | All relevant information for the desi | rad aub acation is | diaplayed | | | | |
| Assess time | e and cost metric | s below the | e metais table | All relevant information for the desir | rea sub-section is | uispiayeu | YES | | | |
| Adjust the " | Disassembly cos | ot nor hour" | value | The "Estimated disassembly cost" n | notrio io adiustad | accordingly | | | | |
| Aujust trie | Disassembly co | st per nour | value | The Estimated disassembly cost in | netric is adjusted a | accordingly | YES | | | |
| A !!Tl- | | -:+ \/C D | | All | | aliana la consul | | | | |
| | ermodynamic ra he "Metals to be | | | All relevant information for the desir | rea sub-section is | displayed | YES | | | |
| | | | | The leaves limits for the UTberness down | | 4 II I | | | | |
| | "Thermodynamic e for revenue" me | | энин апо | The lower limits for the "Thermodyr "Revenue" metrics are adjusted acc | | | PARTIAL | The way the figures change is a bit uncom | fortable. They change very rapidly and you | |
| | | | | | | | | | | |
| | the mouse over | | ne chart | A tooltip with specific metrics about | t the selected met | ai is shown | YES | | | |
| | ıctional Evalı | | | | | | | | | |
| Dim.A (Effe | ectiveness us | efulness to | the network/c | ompany) | | | | Total | 3.7 | |
| Ref# | Question | | | | | | | Answe | er (0-4) | |
| A1 | It is easy to u | nderstand | the objective | and benefit of the service to my | organization/ne | twork. | | | 4 | |
| | The outcome | of the se | rvice is impor | tant / useful for the company/net | work. The service | ce creates value | for my | | | |
| | company ≠ | etwork, for | example by | | | | • | | | |
| | - saving costs | 3 | | | | | | | | |
| | - increasing in | | | | | | | | | |
| | | | ing processes | | | | | | | |
| A2 | - decreasing | | 31 | | | 3 | | | | |
| | - improving q | | | | | | | | | |
| | - sharing info | | | | | | | | | |
| | - attracting cu | | | | | | | | | |
| | - boosting lea | | innovation | | | | | | | |
| | | | with other org | ranizations | | | | | | |
| A3 | | | | ness objectives / perform the tas | ke with the carv | ice | | 4 | | |
| 7.0 | | | | ore value of the tool/service? | SKS WITH THE SELV | icc. | | | | |
| A4 | Wilat Could L | e illibrove | eu to make m | | 0 1 01 | , | 41.1 | 0 5 15 0 16 | | |
| | <u> </u> | | | To waiter Pack in particula | ir, there is nothin | ig to improve in | tnis area, as i | t's more of an informative platform. | | |
| | iciency - perfori | mance of th | ne service) | | | | | Total | 3.8 | |
| Ref# | Question | | | | | | | Answe | er (0-4) | |
| B1 | The time and | resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | | 4 | |
| B2 | The service r | uns fast er | nough. | | | | | | 4 | |
| B3 | | | | y steps to achieve the result. | | | | | 4 | |
| B4 | | | | company/ network. | | | | | 3 | |
| B5 | | | | | | | | | 4 | |
| B0 | | | | fast performance of the tasks. | | | | | T | |
| В6 | vvnat could b | e improv | ea to make m | ore value of the tool/service? | | | | | | |
| | | | | | | | | | | |
| Dim.C (Und | derstandability/ | simplicity) | | | | | | Total | 3.9 | |
| Ref# | Question | | | | | | | Answe | er (0-4) | |
| C1 | The service s | tructure ar | nd logic is eas | y and self-clear to understand ar | nd recognizable. | | | | 4 | |
| C2 | | | | my organization and in line with | | ninology | | | 4 | |
| C3 | | | ient guidance | | | | | | 4 | |
| | | | | derstandable. The look and feel i | is salf avalancts | n, and fallows th | | | | |
| C4 | | | actions are und | uerstandable. The look and feel l | s seii expianatoi | y and follows th | E | | 3 | |
| | TREASURE s | , | | asks is alsow The | ratand b:-/ | alo and the ever | 000 of th- | | | |
| C5 | | | s processes / t | asks is clear. The user can unde | erstand his/her ro | ne and the purp | ose of the | | 4 | |
| <u> </u> | actions requir | | | | | 10.1 | | | | |
| C6 | | | lougn for prac | tical use. The tasks do not look of | complex to perfo | orm. It is clear w | nat is | | 4 | |
| | required for it | | | | | | | | | |
| C7 | The output of | the servic | e is clear and | understandable. | | | | | 4 | |
| | MAII4I-I | ! | 4 4 1 | 1 60 4 1/ 10 | | | | | | |

| . D.(C. | | | T / I | | |
|-----------|--|-----------------------|---------|--------------|-----|
| | isfaction & Attractiveness) | L | Total | | 2.2 |
| ef# | Question | - | | Answer (0-4) | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the state again. | us and starting | | 3 | |
| D3 | The mental workload when using the service is low. | | | 0 | |
| D4 | The service rewards the user also personally | | | 0 | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | |
| D6 | What could be improved to make more value of the tool/service? | | | | |
| DO | I don't know how could I save or car | ncel anything in this | module. | | |
| im.E (Lea | rnability, memorability) | | Total | | 4.0 |
| ef# | Question | | | Answer (0-4) | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| E4 | The service offers sufficient training support. | | | 4 | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| EO | | | | | |
| im.F (Use | preparation & maintenance) | | Total | | 3.4 |
| ef# | Question | | | Answer (0-4) | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily available for the service. | made | 1 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 2 | | |
| F5 | The service can be easily shared in the network. | | 4 | | |
| F6 | The service does not require specific knowledge from the users. | | | 4 | |
| F7 | The service is easy to take up also for SMEs. | | | 4 | |
| F8 | The service does not require extensive change of business processes. | | | 4 | |
| F9 | The service does not require high maintenance. | | | 4 | |
| F10 | What could be improved to make more value of the tool/service? | | | | |
| | tability to network/collaborative environment) | | Total | | 3.5 |
| ef# | Question | | | Answer (0-4) | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | |
| G3 | The service takes into account safety and security. | | | 2 | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | |
| esults / | Assessment | | | | |
| unctional | Dimension | | | | |
| | | i | | TSS Results | |
| SS Succ | ess | | | | |
| SS Parti | al | | | | |
| SS Fail | | | | | |



| Non-functional Dimension | | | | | | |
|---|---------|--|--|--|--|--|
| | Results | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 | | | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | | | |

| Dim.C (Understandability/simplicity) | 3.9 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 2.2 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.5 |





TREASURE Circularity Web Platform - Recyclability Advisor #1 - Test Sheet

Test Case References CWP_REC_ADV_UT_01 Test Case ID Components involved TREASURE Circularity Web Platform Business: Veronica Antonello (veronica.antonello@txtgroup.com) Actors involved Laura del Hoyo (WALTER PACK) **Contact Point** Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) **Short Description** Visualize advisory information about a car part in the Recyclability Advisory Dashboard

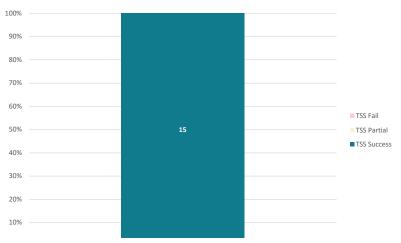
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Click the "Rec advisory" link on the top navbar.
- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

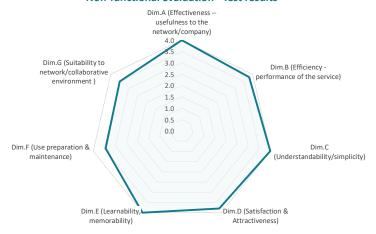
| | that every information expected is corr | TSS _{partial} 0 | | TSS _{fail} | 0 |
|---|--|---|----------|---------------------|--|
| Functional | | Expected Results | Passed | Remarks | U |
| Access to the Circularity Web Platform | | Circularity Web Platform shows login page | YES | Nemarko | |
| Login to the Platform | | User successfully logged in | YES | | |
| User redirected to home page | | Home page correctly opened | YES | | |
| | "combimeter" car part | List of relevant car parts shows up | YES | | |
| Select component to visualize | | Modules selection page is shown for the selected component | YES | | |
| Click the "OPEN REC" button in the "Recyclability | | Recyclability dashboard is shown for the selected component | YES | | |
| Click the "Rec advisory" link on the top navbar. | | Recyclability dashboard is shown for the selected component | YES | | |
| Assess the recycling route table in the "Determine | | All relevant information for the desired table is displayed | TES | | |
| which combination of disassembly path and recycling | | All relevant information for the desired table is displayed | | | |
| | implement (from component to material)" | | YES | | |
| section | | | | | |
| Press the in | nfo button at the right of one recycling | The "DIS & REC route X" popup appears | | | |
| route | | | YES | | |
| Assess the | materials in the "DIS & REC route X" table | All relevant information for the desired table is displayed | V/F0 | | |
| | | | YES | | |
| Assess the | revenue indicator | All relevant information for the desired section is displayed | YES | | |
| | | | TES | | |
| Adjust the ' | "Total cost" value | The "Profit" indicator updates accordingly | | | |
| | | | YES | | |
| D (1 " | 101 11/11/11/11 | TI IIDIO O DEO LI VIII | | | |
| Press the " | 'Close" ("X") button | The "DIS & REC route X" popup closes | YES | | |
| Acces the | "Graphical integration approach" sub- | All relevant information for the desired section is displayed | | | |
| section | Graphical integration approach sub- | All relevant information for the desired section is displayed | YES | | |
| | the mouse over a recycling route in the | A tooltip with specific metrics about the selected recycling route is | | | |
| chart | · · · · · · · · · · · · · · · · · · · | shown | YES | | |
| | nctional Evaluation | | • | | |
| Dim.A (Eff | ectiveness usefulness to the network/c | ompany) | | Total | 4.0 |
| Ref# | Question | | • | l A | Answer (0-4) |
| A1 | It is easy to understand the objective | and benefit of the service to my organization/network. | | | |
| | | tant / useful for the company/network. The service creates valu | e for my | | |
| | company &network, for example by | , | , | | |
| | - saving costs | | | | |
| | - increasing income | | | | |
| | - saving time, accelerating processes | | | | |
| A2 | - decreasing risks | | | | |
| | | | | | 4 |
| | | | | | 4 |
| | - improving quality | | | | 4 |
| | - improving quality - sharing information | | | | 4 |
| | improving qualitysharing informationattracting customers | | | | 4 |
| | - improving quality - sharing information - attracting customers - boosting learning and innovation | panizations | | | 4 |
| A3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org | | | | 4 |
| A3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi | ness objectives / perform the tasks with the service. | | | |
| A3 A4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org | ness objectives / perform the tasks with the service. | | | |
| A4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make me | ness objectives / perform the tasks with the service. | | Total | 4 |
| A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m | ness objectives / perform the tasks with the service. | | Total | 3.8 |
| A4 Dim.B (Effi Ref# | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question | ness objectives / perform the tasks with the service. ore value of the tool/service? | | | 4 3.8 Answer (0-4) |
| A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to ache The time and resources required to ache Comparison of the service of the ser | ness objectives / perform the tasks with the service. | | | 3.8 <u>Answer (0-4)</u> |
| A4 Dim.B (Effi | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to achieve the planned busi | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. | | | 3.8 Answer (0-4) 4 |
| A4 Dim.B (Effi Ref # B1 B2 B3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ore It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to an The service does not require too man | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. | | | 3.8 Answer (0-4) 4 4 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orgood it is easy to achieve the planned busing what could be improved to make misciency - performance of the service) Question The time and resources required to another the service runs fast enough. The service does not require too man all the functions are beneficial for my | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. | | | 3.8 Answer (0-4) 4 4 4 3 |
| A4 Dim.B (Effi Ref # B1 B2 B3 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | | 3.8 Answer (0-4) 4 4 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other orgood it is easy to achieve the planned busing what could be improved to make misciency - performance of the service) Question The time and resources required to another the service runs fast enough. The service does not require too man all the functions are beneficial for my | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | | 3.8 Answer (0-4) 4 4 4 3 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to and The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make me | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | A | 4 3.8 Answer (0-4) 4 4 4 4 4 3 3 4 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other org It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | | 3.8 Answer (0-4) 4 4 4 3 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to and The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible & What could be improved to make me | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | Total | 4 3.8 Answer (0-4) 4 4 4 4 4 3 3 4 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Un | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to an order order order or the service of the | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. a fast performance of the tasks. | | Total | 4 3.8 Answer (0-4) 4 4 4 3 3 4 4.0 |
| A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Un | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to an The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 What could be improved to make m derstandability/simplicity) Question The service structure and logic is eas | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? | | Total | 4 3.8 Answer (0-4) 4 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| A4 Dim.B (Efff Ref # B1 B2 B3 B4 B5 B6 Dim.C (United # C1 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other ord It is easy to achieve the planned busi What could be improved to make m iciency - performance of the service) Question The time and resources required to an The service runs fast enough. The service does not require too man All the functions are beneficial for my The service structure allows flexible 8 What could be improved to make m derstandability/simplicity) Question The service structure and logic is eas | ness objectives / perform the tasks with the service. ore value of the tool/service? chieve the objectives with the service are reasonable/moderate. y steps to achieve the result. company/ network. fast performance of the tasks. ore value of the tool/service? y and self-clear to understand and recognizable. my organization and in line with TREASURE terminology | | Total | 4 3.8 Answer (0-4) 4 4 4 3 4 4 Answer (0-4) 4.0 Answer (0-4) |

| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | 4 | 4 |
|---|---|---------------------------------------|--|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. | 4 | 1 |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | 4 | 1 |
| C7 | The output of the service is clear and understandable. | | 1 |
| | What could be improved to make more value of the tool/service? | | |
| C8 | | | |
| Dim.D (Sati | isfaction & Attractiveness) | Total | 3.8 |
| Ref# | Question | Answe | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | ; | 3 |
| D3 | The mental workload when using the service is low. | 4 | 1 |
| D4 | The service rewards the user also personally | 4 | 4 |
| D5 | I could recommend the service for other people/organizations. | 4 | 1 |
| DC | What could be improved to make more value of the tool/service? | | |
| D6 | I don't know how could I save or cancel anything in t | this module. | |
| Dim.E (Lea | rnability, memorability) | Total | 4.0 |
| Ref# | Question | Answe | er (0-4) |
| E1 | It is easy to start using the service and to perform the main tasks. | | |
| E2 | It is easy to learn new features/ functionalities. | 4 | 1 |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 1 |
| E4 | The service offers sufficient training support. | 4 | 1 |
| | What could be improved to make more value of the tool/service? | | |
| E5 | That sould be improved to make more value of the toolyservice. | | |
| Dim E (Hea | preparation & maintenance) | Total | 3.4 |
| Ref# | Question | Answe | |
| F1 | The take-up of the service does not require high preparation. | | 4 |
| | Technical installation does not require specific setups or additional downloads. | | 4 |
| F2 | recrifical installation does not require specific setups of additional downloads. | 4 | + |
| F2 F3 | The data needed by the service exist in my company/network in the proper format and can be easily made | | 1 |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 1 |
| F3 F4 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. | | 2 |
| F3 F4 F5 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. | | 2 |
| F3 F4 F5 F6 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. | | 1 2 4 |
| F3 F4 F5 F6 F7 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. | · · · · · · · · · · · · · · · · · · · | 1 2 4 4 |
| F3 F4 F5 F6 F7 F8 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | 1 2 4 4 |
| F3 F4 F5 F6 F7 F8 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? tability to network/collaborative environment) Question | Total | 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | Total Answer | 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Total Answer | 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Tability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | Total Answer | 3.5 or (0-4) |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total Answer | 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total Answer | 3.5 or (0-4) |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service does not require extensive change of business processes. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total Answer | 3.5 or (0-4) 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service can be easily shared in the network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Lability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total Answer | 3.5 or (0-4) 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results A Functional | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total Answer | 3.5 or (0-4) 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| F3 F4 F5 F6 F7 F8 F9 F10 Dim.G (Suit Ref # G1 G2 G3 G4 Results F Functional | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. The service can be easily customized/ configured to my environment/ network. The service does not require specific knowledge from the users. The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total Answer | 3.5 or (0-4) 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |





| Non-functional Dimension | | | | |
|--|---------|--|--|--|
| | Results | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | |
| Dim.B (Efficiency - performance of the service) | 3.8 | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | |
| Dim.F (Use preparation & maintenance) | 3.4 | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | |
| | Total | | | |
| | 3.8 | | | |





TREASURE Circularity Web Platform - Eco-Design Advisor #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_ECO_ADV_UT_01 | Components involved | TREASURE Circularity Web Platform |
|--|-----------------|------------------------------|---------------------|---|
| | Actors involved | Laura del Hoyo (WALTER PACK) | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) |
| Short Description Visualize advisory information about a car part in the Eco-Design Advisory Dashboard | | | | |

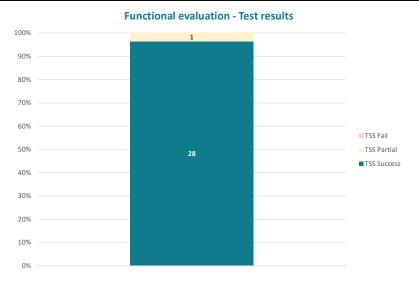
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
 3. In the search bar, search for the "combineter" component and select the first search result.
 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
 5. Click the "Eco advisory" link on the top navbar.

- 6. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| | ectly reported in its dedicated card and is displayed in the appro | priate format | | | |
|--|--|---------------|----------------------------|--------------|-----|
| TSS _{success} 28 | TSS _{partial} 1 | | TSS _{fail} | | 0 |
| Functionalities | Expected Results | Passed | Remarks | | |
| Access to the Circularity Web Platform | Circularity Web Platform shows login page | YES | | | |
| Login to the Platform | User successfully logged in | YES | | | |
| User redirected to home page | Home page correctly opened | YES | | | |
| Search for "combimeter" car part | List of relevant car parts shows up | YES | | | |
| Select component to visualize | Modules selection page is shown for the selected component | YES | | | |
| Click the "OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for the selected component | 120 | | | |
| Module" card | Eco-design dashboard is shown for the selected component | YES | | | |
| | F d:d-: dbbd | | - | | |
| Click the "Eco advisory" link on the top navbar. | Eco-design advisor dashboard correctly opened | YES | | | |
| Assess the "Feedback to improve design for | All the relevant feedback is properly displayed for the desired sub- | l | | | |
| disassembly and recycling" table in the "Step 1: | section | YES | | | |
| Preliminary analysis of the reference design" sub- | | | | | |
| section of the "Reference Design" section | | | | | |
| Assess the "Eco-design feedback" table in the "Step 1: | All the relevant feedback is properly displayed for the desired sub- | l | | | |
| Preliminary analysis of the reference design" sub- | section | YES | | | |
| section of the "Reference Design" section | | 1 | | | |
| | | | | | |
| Click the "Generate Guidelines" button in the "Step 2: | "Generate guidelines" popup is shown | | | | |
| Generation of specific eco-design guidelines and | | YES | | | |
| prioritization" sub-section | | | | | |
| Hover the mouse over the info icon next to the | A tooltip with the guideline name appears | | | | |
| guideline ID | | YES | | | |
| Click the info button next to the number of associated | A popup with the list of feedbacks associated to "Guideline 10" | l | | - | |
| feedbacks for "Guideline 10" | appears | YES | | | |
| Press the "X" button | The feedbacks popup closes | YES | | | |
| Select a "Margin of improvement (MI)" and a | The "Level of circularity improvement" indicator corresponding to | 120 | | | |
| "Relevance (R)" for each guideline | each guideline is computed | YES | | | |
| Click the "Generate" button | The "Generate guidelines" popup closes, the "Step 3: Generation of | - | | | |
| Click the Generate button | the new design supported by the advisory" sub-section appears, | | | | |
| | showing the guidelines radar-chart | YES | | | |
| | | | | | |
| Assess the guidelines radar chart in the "Step 3: | All relevant information for the desired section is displayed | | | | |
| Generation of the new design supported by the | | YES | | | |
| advisory" sub-section | | | | | |
| Hover the mouse over a point in the guidelines radar | A popup showing the "Level of circularity improvement" indicator | PARTIAL | The popup says "Assesment" | | |
| chart | appears | PARTIAL | The popup says Assesment | | |
| Select a guideline from the "Assessment for" | The "Associated feedback" and "Advisory" content in the table below | | | | |
| dropdown, at the bottom of the guidelines radar chart | change accordingly | YES | | | |
| | | | | | |
| Assess the "Scenarios comparison" section | All relevant information for the desired section is displayed | YES | | | |
| lick the "OPEN SCENARIOS IN GRETA" button | The GRETA tool opens in a new tab | YES | | | |
| Move between the "LCA" and "LCC" tabs below the | The scenarios radar chart updates accordingly | 120 | + | | |
| "OPEN SCENARIOS IN GRETA" button | The scenarios radar chart apoates accordingly | YES | | | |
| Click the "REFRESH" button on the top right of the | The scenarios radar chart and comments section refresh | | | | |
| "Scenarios comparison" section | The section radar chart and confinents section refresh | YES | | | |
| <u> </u> | All relevant information for the scenarios is displayed | VEC | + | | |
| Assess the scenarios radar chart | All relevant information for the scenarios is displayed | YES | - | | |
| Hover the mouse over a point in the scenarios radar | A tooltip with the category value for the selected scenario appears | I | | | |
| chart | | YES | | | |
| | | | | | |
| Click the "DOWNLOAD REFERENCE REPORT" button | The report for the reference scenario is exported in ".pdf" format | YES | | | |
| | | IES | | | |
| Click the "DOWNLOAD BEST-CASE REPORT" button | The report for the best-case scenario is exported in ".pdf" format | YES | | | |
| | | 159 | <u> </u> | | |
| Assess the "Comments" section | All relevant information for the desired section is displayed | YES | | | |
| Assess the "Metal Wheel (MARAS)" section | All relevant information for the desired section is displayed | YES | | | |
| Click the "DOWNLOAD" button at the top right of the | The metal wheel is exported in ".png" format | | † | | |
| "Metal Wheel (MARAS)" section | , .g | YES | | | |
| Non-Functional Evaluation | | | • | | |
| | | | T-4-1 | | 4.0 |
| Dim.A (Effectiveness usefulness to the network/c | ompany) | | Total | | 4.0 |
| Ref # Question | | | | Answer (0-4) | |
| A1 It is easy to understand the objective | and benefit of the service to my organization/network. | | | 4 | |
| | | | | | |

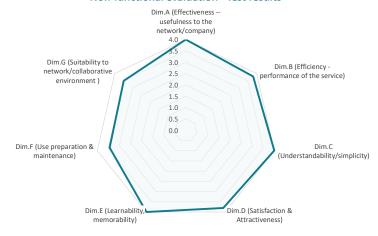
| 18 The time and resources sequence to achieve with the service are reasonable/moderate. 4 | | | | | | |
|--|------------|---|------------------|-------|--------------|-----|
| A consideration and a control of the | | · · · · · · · · · · · · · · · · · · · | ue for my | | | |
| services for excellenting processes - service for excellenting processes - service for excellenting services - standard processing with other composaless - supporting clearing and the composaless - supporting clearing cle | | | | | | |
| As only prime, according primesses - decreasing residue, - during information - statistical countries | | | | | | |
| - storage grants of the company of t | | - saving time, accelerating processes | | | | |
| A 3 See early control of motivation of motiv | A2 | · · | | | 4 | |
| and a contraction of the contrac | | | | | | |
| - Sporting flamming and innovation - Sporting flamming freedom the bash with the service. All the carry the substrate productions adjustment fundament flamming flam | | · · | | | | |
| A seponding networking with other congressations of professor in the stack with the service. A the service has been been been been service to make more value of the stack with the service. A the service has been provided to make more value of the stack with the service or a vessorable mode or a service | | | | | |
| A Service so cacheve the planted business of general control so cacheve (the planted business of general control so cachev | | | | | | |
| Total 3.8 and the service of the service) professment of the service) 1.0 miles (Efficiency prof | А3 | | | | 4 | |
| Total 3.8 1. | Δ4 | What could be improved to make more value of the tool/service? | | | | |
| Late 2 Assessment of the control of | | | | | | |
| 181 The firms and removers required to achieve the disperses with the survives are reasonable/morteriors. 2 The service does not require to many steps to achieve the result. 3 The service does not require to many steps to achieve the result. 4 All the functions are beneficial draw or company introvers. 5 The service structure adobts flexible & first performance of the tasks. 4 All the functions are beneficial draw or company introvers. 5 The service structure and togs flexible & first performance of the tasks. 4 All the functions are beneficial for the survives are structure and togs flexible & first performance of the tasks. 5 The service structure and tags is only and self-claim to understand and recorpanable. 5 The service structure and tags is only and self-claim to understand and recorpanable. 5 The service structure and tags is only and self-claim to understand and recorpanable. 6 The service structure and tags is only and self-claim to understand and recorpanable. 7 The services to our actions are understandable. The book and feel is self-explanatory and follows the Tacks. Self-claim to understand this first book and feel is self-explanatory and follows the Tacks. Self-claim self-claim to understand this first record to the service is called an order-day and follows to perform. It is clear what is greated the self-claim service for eight. 7 The cuplest of the service is clear and understandable. 9 The service is attractive to the user I feel satisfied and confidential when one use the self-claim and confidential when one uses the service. 9 Carl leads to display the service is the user also personally in the service is attractive to the user. The service is attractive to the user. The service is attractive to the user also personally and the service is attractive to the user. The service is attractive to the user and to personal the service is attractive to the user and to personal the service is attractive to the user and to personal the service is attractive to the user and to personal t | | | | Total | | 3.8 |
| Be service runs faste records: The service come and require to many steps to arthrive the result. 4 4 4 4 4 4 4 4 4 4 4 4 4 | Ref# | | - | | | |
| 33 10 service does not organize to many stocycle to achieve the result. 4 | | , | Э. | | | |
| At the functions are beneficial for my company network. At the functions are beneficial for my company network. By What could be improved to make more value of the tool/service? | | 9 | | | | |
| What could be improved to make more value of the todiservice? Total | | | | | | |
| Billian Control State State (1997) What could be improved to make morn value of the toolservice? What could be improved to make morn value of the toolserv | | | | | | |
| Joseph Control Collection Extraction Collection Collect | | ' | | | 4 | |
| Left g. Question | В6 | That board be improved to make more value of the tooligor vice. | | | | |
| Left g. Question | Dim.C (Und | lerstandability/simplicity) | | Total | | 4.0 |
| A Company A A A A A A A A A | Ref# | • | <u> </u> | | Answer (0-4) | |
| A Company A A A A A A A A A | | | | | | |
| The service offers sufficient guidance 4 The responses to user actions are understandable. The look and feel is self explanatory and follows the 4 TREASURE style. 5 The supports to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. 6 The supports to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. 6 The supports to support on the support of the supp | | | | | 4 | |
| TREASURE style. Treasurport to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. The output of the service is clear and understandable. The service is desirated for input. What could be improved to make more value of the tool/service? Total Total 3.8 **Manual Could be improved to make more value of the tool/service? **Total 1 The service is a directive to the user. It lest satisfied and comfortable when using the service. 1 Total 2 Ican keep the control of the service, for example by pussings continuing, canceling, saving the status and starting again. 3 The mental vorkload when using the service is low. 4 The service rewards the user also personally 5 Ican for ecomment the service for other people/organizations. 4 What could be improved to make more value of the tool/service? ***Intelligent Country of the service and to perform the main tasks. 1 It is easy to start using the service and to perform the main tasks. 1 It is easy to start using the service and to perform the main tasks. 1 It is easy to start using the service and to perform the main tasks. 2 It is easy to start using the service and to perform the main tasks. 4 It is easy to start using the service and to perform the main tasks. 5 What could be improved to make more value of the tool/service? ***Intelligent Country of the service and to perform the main tasks. 5 What could be improved to make more value of the tool/service? ***Intelligent Country of the service and to perform the main tasks. 5 What could be improved to make more value of the tool/service? ***Intelligent Country of the service and to perform the main tasks. 6 The service after service and the service does not require specific security of the service. 1 The service are seasy to start using support. 1 Total | C3 | | | | 4 | |
| REASURE style. Since support to business processes / tasks is clear. The user can understand histher role and the purpose of the caccious required. Since style is a simple enough for practical use. The tasks do not look complex to perform. It is clear what is In secretic a simple enough for practical use. The tasks do not look complex to perform. It is clear what is A that could be improved to make more value of the tool/service? What could be improved to make more value of the tool/service? | C4 | l ' | the | | 4 | |
| Sections required. CR The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is equired for input. CR Through of the service is clear and understandable. CR What could be improved to make more value of the tool/service? Total 3.8 **Total 3.8 **Total 3.8 **Answer (6-4) DI The service is attractive to the user. I feel satisfied and comfortable when using the service. Lear kept the control of the service for service play pausings continuing, canceling, saving the slatus and starting again. 3. The mental workload when using the service is tow. 4. DI The service rewards the user also personally 5. Loud recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I count recommend the service for other people/organizations. 4. DI I service rewards the user also personally to the college review. DI I count recommend the service for other people/organizations. 4. DI I to service rewards the user also personally to the college review. DI I to service and the service and to perform the main tasks. 4. DI I to service for an undinsider dank, it is easy to remember / identify the actions needed. 4. DI Total 4. DI Total 5. The service of other authorise of the tool/service? DI Total 5. The service of the service does not require high proparation. 4. DI Total 5. The service can be easily customized for configure people recomment network. 5. The data needed by the service dean for require high proparation. 5. The service can be easily customized for configure of the service. 5. The ser | | | | | | |
| The service is simple enough for practical use. The teaks do not look complex to perform. It is clear what is required for input. The output of the service is clear and understandable. But the service of the court of the teaks of the tea | C5 | · · · · · · · · · · · · · · · · · · · | rpose of the | | 4 | |
| required for input. 7 The output of the service is clear and understandable. 8 What could be improved to make more value of the tool/service? 9 Overland the service is a structureness and the service of the service of the service of the service of the service of the service of the service of the service of the service is low. 90 If ne service is affactive to the user. I feet satisfied and comfortable when using the service. 90 If ne service is affactive to the user also personally again. 91 If the mental workload when using the service is low. 92 If the service rewards the user also personally 4 93 If the service rewards the user also personally 4 94 If the service rewards the user also personally 4 95 I could recommend the service for other people/organizations. 95 What could be improved to make more value of the tool/service? 96 What could be improved to make more value of the tool/service? 97 It is assy to learn new features/ functionalities. 98 If it is assy to learn new features/ functionalities. 99 What could be improved to make more value of the tool/service? 98 What could be improved to make more value of the tool/service? 98 What could be improved to make more value of the tool/service? 99 What could be improved to make more value of the tool/service? 90 What could be improved to make more value of the tool/service? 90 What could be improved to make more value of the tool/service? 90 What could be improved to make more value of the tool/service? 90 What could be improved to make more value of the tool/service? 91 What could be improved to make more value of the tool/service? 92 What could be improved to make more value of the tool/service? 93 What could be improved to make more value of the tool/service? 94 What could be improved to make more value of the tool/service? 95 What could be improved to make more value of the tool/service? 96 What could be improved to make more value of the tool/service? 97 The service can be easily quated in the retwork. 98 What could be improved to make more value of the t | | | what is | | | |
| The output of the service is clear and understandable. 8 | C6 | | WHAT IS | | 4 | |
| CB What could be improved to make more value of the tool/service? Total | C7 | | | | 4 | |
| Samp Count | -00 | · | | | | |
| Answer (0-4) | C8 | | | | | |
| D1 The service is attractive to the user. Iteel salistified and comfortable when using the service. 4 | Dim.D (Sat | sfaction & Attractiveness) | | Total | | 3.8 |
| Can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. 3 The mental workload when using the service is low. 4 4 5 10 The service rewards the user also personally 4 4 5 10 The service rewards the user also personally 4 4 5 10 The service are service for other people/organizations. 4 4 5 10 Total 4 6 6 11 Total 4 6 6 12 Total 4 6 13 Total 4 6 14 Total 4 6 15 Total 4 6 16 Total 4 6 17 Total 4 6 18 Total 4 6 19 Total 4 6 10 Total 3 6 10 Total 4 6 10 Total 3 6 10 Total 4 6 10 Total 3 6 10 Total 4 6 10 Total 4 6 10 Total 4 6 10 Total 5 6 10 Total 6 10 Total 6 6 10 Total 6 10 Total 6 10 Total 7 7 10 Total 7 7 11 Total 7 7 12 Total 7 7 7 13 Total 7 7 7 14 Total 7 7 7 7 15 Total 7 7 7 7 7 16 Total 7 7 7 7 7 7 7 17 Total 7 7 7 7 7 7 7 7 7 18 Total 7 7 7 7 7 7 7 7 7 | | | | | | |
| again. 3 again. The mental workload when using the service is low. A The service rewards the user also personally A The service rewards the user also personally B I could recommend the service for other people/organizations. B What could be improved to make more value of the tool/service? B It is easy to learn new features if functionalities. A Nature (0-4) EI It is easy to learn new features if functionalities. A When coming back to an unfinished task, it is easy to remember / identify the actions needed. A the service offers sufficient training support. What could be improved to make more value of the tool/service? B When coming back to an unfinished task, it is easy to remember / identify the actions needed. A the service offers sufficient training support. B When coming back to an unfinished task, it is easy to remember / identify the actions needed. A the service offers sufficient training support. B When could be improved to make more value of the tool/service? B What could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/service? B When could be improved to make more value of the tool/ | D1 | , | | | 4 | |
| The mental workload when using the service is low. The service rewards the user also personally The service rewards the user also personally Total Total 4 10 Mhat could be improved to make more value of the tool/service? | D2 | | tus and starting | | 3 | |
| The service rewards the user also personally 1 could recommend the service for other people/organizations. 4 | | | | | | |
| DS I could recommend the service for other people/organizations. 4 What could be improved to make more value of the tool/service? 4 | _ | | | | | |
| What could be improved to make more value of the tool/service? Dim.E (Learnability, memorability) Total 4.0 | | · · · | | | | |
| Dimit Clearnability, memorability Total 4,0 | Do | 1 1 0 | | | 4 | |
| Ref # Question | D6 | What could be improved to make more value of the tool/service: | | | | |
| Ref # Question | Dim.E (Lea | rnability, memorability) | | Total | | 4.0 |
| E2 It is easy to learn new features/ functionalities. 4 | Ref# | | <u> </u> | | Answer (0-4) | |
| E2 It is easy to learn new features/ functionalities. 4 | E1 | It is easy to start using the service and to perform the main tasks. | | | | |
| The service offers sufficient training support. By What could be improved to make more value of the tool/service? Interferent Count Co | | | | | 4 | |
| What could be improved to make more value of the tool/service? Total 3.4 | E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | |
| Dim.F (Use preparation & maintenance) Total 3.4 | E4 | The service offers sufficient training support. | | | 4 | |
| Total 3,4 | F5 | What could be improved to make more value of the tool/service? | | | | |
| Ref # Question | | | | | | |
| F1 The take-up of the service does not require high preparation. F2 Technical installation does not require specific setups or additional downloads. F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. F4 The service can be easily customized/ configured to my environment/ network. F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? F10 Total 3.5 Total 3.5 Answer (0-4) G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | | | | Total | | 3.4 |
| F2 Technical installation does not require specific setups or additional downloads. F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. F4 The service can be easily customized/ configured to my environment/ network. F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require injgh maintenance. F10 What could be improved to make more value of the tool/service? F10 What could be improved to make more value of the tool/service? F10 Total Total 3.5 Answer (0-4) G1 The service is suitable for heterogeneous users and different networks. 4 F1 Total Answer (0-4) G2 The service is suitable for heterogeneous users and different networks. | | | | | | |
| The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. F4 The service can be easily customized/ configured to my environment/ network. F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? F10 What could be improved to make more value of the tool/service? F10 Total 3.5 Ref # Question Answer (0-4) G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | | | | | | |
| available for the service. F4 The service can be easily customized/ configured to my environment/ network. F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require in high maintenance. F10 What could be improved to make more value of the tool/service? F10 Oim.G (Suitability to network/collaborative environment) F10 Total 3.5 Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | F2 | · · · · · · · · · · · · · · · · · · · | , made | | 4 | |
| F4 The service can be easily customized/ configured to my environment/ network. F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? F10 What could be improved to make more value of the tool/service? F10 Total Total 3.5 Answer (0-4) G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | F3 | | / made | | 1 | |
| F5 The service can be easily shared in the network. F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? | F4 | | | | 2 | |
| F6 The service does not require specific knowledge from the users. F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? What could be improved to make more value of the tool/service? Total 3.5 Answer (0-4) G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. | | · · · | + | | | |
| F7 The service is easy to take up also for SMEs. F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? | | · | + | | | |
| F8 The service does not require extensive change of business processes. F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? | | | - | | | |
| F9 The service does not require high maintenance. F10 What could be improved to make more value of the tool/service? F10 What could be improved to make more value of the tool/service? F10 Sim.G (Suitability to network/collaborative environment) | | · | | | | |
| What could be improved to make more value of the tool/service? Dim.G (Suitability to network/collaborative environment) Total 3.5 Ref # Question | | | | | | |
| India Guitability to network/collaborative environment) Ref # Question G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. G3 The service takes into account safety and security. G3 The service takes into account safety and security. | | | | | | |
| Ref # Question Answer (0-4) G1 The service supports collaboration and interoperability for my network. 4 G2 The service is suitable for heterogeneous users and different networks. 4 G3 The service takes into account safety and security. 2 | F10 | | | | | |
| G1 The service supports collaboration and interoperability for my network. G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 C2 2 | | | | Total | | 3.5 |
| G2 The service is suitable for heterogeneous users and different networks. G3 The service takes into account safety and security. 4 C3 | | | | | | |
| G3 The service takes into account safety and security. 2 | | | | | | |
| | | · | | | | |
| G4 The service usage does not require high negotiation or complex agreements in the network. 4 | G3 | The service takes into account safety and security. | | | 2 | |
| <u> </u> | | | | | | |
| | G4 | The service usage does not require high negotiation or complex agreements in the network. | I | | 4 | |

| Results Assessment | |
|----------------------|-------------|
| Functional Dimension | |
| | TSS Results |
| TSS Success | 28 |
| TSS Partial | 1 |
| TSS Fail | 0 |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.4 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.8 |







TREASURE Circularity Web Platform - Dismantler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_DIS_UT_01 | Components involved | TREASURE Circularity Web Platform | | |
|---|-------------------|--|---------------------|--|--|--|
| | Actors involved | Laura del Hoyo (WALTER PACK) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | |
| п | Chart Description | Visualine basis diamonthing information about a gay part in the Diagonamble bility Doobbasyd | | | | |

Test Script

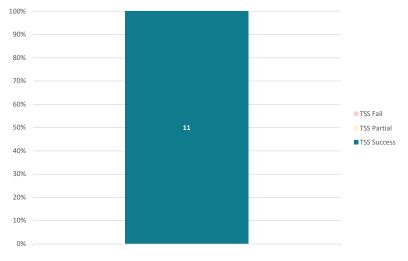
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.

actions required.

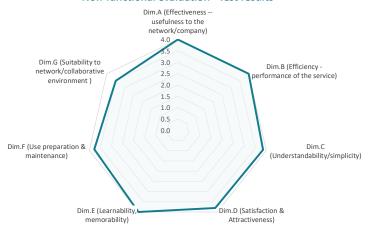
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

| TSS _{success} | 11 | 1 | TSS _{partial} | 0 | | | TSS _{fail} 0 | | |
|--------------------------------------|---|---|---|------------------------|-------------------|------------|-----------------------|-----------|--|
| Functionalities | | | Expected Results | | | Passed | Remarks | | |
| Access to the Circularity \ | Veb Platform | | Circularity Web Platform shows log | in page | | YES | | | |
| Login to the Platform | | | User successfully logged in | | | YES | | | |
| User redirected to home p | age | | Home page correctly opened | | | YES | | | |
| Search for "combimeter" of | | | List of relevant car parts shows up | | | YES | | | |
| Select component to visua | | | Modules selection page is shown for | or the selected con | nnonent | YES | | | |
| Click the "OPEN DIS" butt | | aaaamblabilit. | Disassembly dashboard is shown for | | • | TES | | | |
| Module" card | on in the Dis | assemblability | Disassembly dashboard is shown to | or the selected cor | nponent | YES | | | |
| | -4-44: | | All | | laal | 1/20 | | | |
| Assess component overal | | | All relevant information for the desi | | • | YES | | | |
| Assess "Materials compos | ition" & "Mate | erial Costs" pie | All relevant information for the desi | red section is disp | layed | YES | | | |
| charts section | | | | | | | | | |
| Assess "Disassembly time | s (manual)" se | ection | All relevant information for the desired section is displayed | | | YES | | | |
| Assess "Disassembly metrics" section | | | All relevant information for the desired section is displayed | | | YES | | | |
| nsert desired value into h | ourly cost inp | ut in | The "Disassembly cost (lowerbound | d", "Disassembly c | ost" and | | | | |
| "Disassemblability metrics" section | | "Disassembly cost (upperbound)" metrics adjust their values | | YES | | | | | |
| | | | accordingly | | | | | | |
| Assess "Cobot metrics" se | ction | | All relevant information for the desi | red section is disp | laved | YES | | | |
| ssess "Feedback for rec | | n | All relevant information for the desi | | | YES | | | |
| | | | | | | 123 | | | |
| Select different recycling | | | The feedback displayed changes d | epending on the s | elected foute | YES | | | |
| Disassembly & recycling | | VVII | 71 116 11 1 | | | NOTE - | | | |
| Press the "Add feedback" | | | The add feedback popup appears | | | YES | | | |
| nsert some feedback text | then press the | he "Add | The feedback is correctly inserted | for the currently se | elected recycling | YES | | | |
| eedback" button | | | route | | | 1120 | | | |
| Assess "components extra | ction priority | VS | All relevant information for the desi | red section is disp | layed | YES | | | |
| disassembly time" section | | | | | | 123 | | | |
| Non-Functional Eva | luation | | | | | | | | |
| Dim.A (Effectiveness u | sefulness to | the network/c | ompany) | | | | Total | 4.0 | |
| <u> </u> | | | | | | | | ver (0-4) | |
| | | | | | | | Allsw | | |
| A1 It is easy to | understand | I the objective | and benefit of the service to my | organization/ne | twork. | | | 4 | |
| The outcom | e of the sei | rvice is impor | tant / useful for the company/net | work. The service | e creates value | for my | | | |
| company & | network for | evample by | . , | | | , | | | |
| | company &network, for example by | | | | | | | | |
| | - saving costs | | | | | | | | |
| increasing | - increasing income | | | | | | | | |
| - saving time | - saving time, accelerating processes | | | | | | | | |
| A2 - decreasing | - decreasing risks | | | | | | 4 | | |
| | - improving quality | | | | | | | | |
| - sharing inf | | | | | | | | | |
| | | | | | | | | | |
| - attracting of | | | | | | | | | |
| | arning and | | | | | | | | |
| - supporting | networking | with other org | ganizations | | | | | | |
| A3 It is easy to | achieve the | planned busi | ness objectives / perform the tas | ks with the serv | ce. | | | 4 | |
| What could | be improve | ed to make m | ore value of the tool/service? | | | | | | |
| A4 | | | | | | | | | |
| im D /Efficience of | rmene f (1 | · | | | | | Total | 1.0 | |
| oim.B (Efficiency - perfo | mance of th | e service) | | | | | Total | 4.0 | |
| Ref # Question | | | | | | | Answ | ver (0-4) | |
| B1 The time an | d resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | | 4 | |
| B2 The service | | - | · | | | | | 4 | |
| | | | v stope to achieve the arrest | | | | | | |
| | | | y steps to achieve the result. | | | | | 4 | |
| | | | company/ network. | | | | | 4 | |
| B5 The service | structure all | lows flexible 8 | k fast performance of the tasks. | | | | | 4 | |
| What could | be improve | ed to make m | ore value of the tool/service? | | | | | | |
| B6 | | | | | | | | | |
| | | | | | | | T. () | | |
| im.C (Understandabilit | //simplicity) | | | | | | Total | 3.9 | |
| tef# Question | | | | | | | Answ | ver (0-4) | |
| | structure ar | nd logic is eas | v and self-clear to understand ar | nd recognizable. | | | | 4 | |
| | The service structure and logic is easy and self-clear to understand and recognizable. The concepts are understandable for my organization and in line with TREASURE terminology | | | | | | 1 | 3 | |
| | , 0 | | | | | | | | |
| | The service offers sufficient guidance | | | | | | | 4 | |
| The respons | he responses to user actions are understandable. The look and feel is self explanatory and follows the | | | | | | 4 | | |
| C4 TREASURE | style. | | | | | | | 7 | |
| Th | 4- 1 | nrocesses / t | asks is clear. The user can unde | retand hig/hor re | le and the num | ose of the | | 4 | |
| C5 The support | to business | | | I Stantu IIIS/ITEL II. | ne and the burn | | | | |

| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is | | | | |
|---|--|-------|--|-----|--|
| C6 | required for input. | | 4 | | |
| C7 | The output of the service is clear and understandable. | | 4 | | |
| | What could be improved to make more value of the tool/service? | | | | |
| C8 | | | | | |
| Dim.D (Sat | tisfaction & Attractiveness) | Total | | 3.8 | |
| Ref# | Question | | Answer (0-4) | *** | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | | |
| | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting | | | | |
| D2 | again. | | 4 | | |
| D3 | The mental workload when using the service is low. | 4 | | | |
| D4 | The service rewards the user also personally | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | |
| D0 | What could be improved to make more value of the tool/service? | | | | |
| D6 | | | | | |
| Dim.E (Lea | urnability, memorability) | Total | | 4.0 | |
| Ref# | Question | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | |
| E4 | The service offers sufficient training support. | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | |
| LJ | | | | | |
| im.F (Use | e preparation & maintenance) | Total | | 3.8 | |
| Ref# | Question | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | 4 | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | 4 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made | | 3 | | |
| | available for the service. | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | 3 | | | |
| F5 | The service can be easily shared in the network. | 4 | | | |
| | | | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | |
| F7 | The service is easy to take up also for SMEs. | | 4 4 | | |
| F7 F8 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 4 4 4 | | |
| F7 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. | | 4 4 | | |
| F7 F8 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. | | 4 4 4 | | |
| F7 F8 F9 F10 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? | Total | 4 4 4 | 25 | |
| F7 F8 F9 F10 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) | Total | 4 4 4 4 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Sui | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question | Total | 4 4 4 4 Answer (0-4) | 3.5 | |
| F7 F8 F9 F10 Sim.G (Suitef# | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. | Total | 4 4 4 4 | 3.5 | |
| F7 F8 F9 F10 Sim.G (Suitef# G1 G2 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Total | 4 4 4 4 Answer (0-4) | 3.5 | |
| F7 F8 F9 F10 Sim.G (Suitef# G1 G2 G3 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | Total | 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |
| F7 F8 F9 F10 Sim.G (Suitef# G1 G2 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. | Total | 4 4 4 4 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Suite # G1 G2 G3 G4 | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. | Total | 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Suitef# G1 G2 G3 G4 Results | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. | Total | 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Suitef# G1 G2 G3 G4 Results | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment | Total | 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Suitef# G1 G2 G3 G4 Results / | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total | 4 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |
| F7 F8 F9 F10 Dim.G (Suitef# G1 G2 G3 G4 Results | The service is easy to take up also for SMEs. The service does not require extensive change of business processes. The service does not require high maintenance. What could be improved to make more value of the tool/service? Itability to network/collaborative environment) Question The service supports collaboration and interoperability for my network. The service is suitable for heterogeneous users and different networks. The service takes into account safety and security. The service usage does not require high negotiation or complex agreements in the network. Assessment Dimension | Total | 4 4 4 4 4 Answer (0-4) 4 3 3 | 3.5 | |



| | Results |
|--|---------|
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 4.0 |
| Dim.C (Understandability/simplicity) | 3.9 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 3.8 |
| Dim.G (Suitability to network/collaborative environment) | 3.5 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Dismantler #2 - Test Sheet

Test Case References

| Test Case ID | (CWP_DIS_UT_02) CWP_DIS_UT_03 | Components involved | TREASURE Circularity Web Platform | | | | |
|-------------------|---|---------------------|--|--|--|--|--|
| Actors involved | Laura del Hoyo (WALTER PACK) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Short Description Assess and export specific information about a car part disassembly time from the Disassemblability Dashboard | | | | | | |

Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN DIS" button in the "Disassemblability Module" card.
- 5. Navigate to the "Disassembly times (manual)" section.
- 6. Click the info button next to the "Level 2" metric.
- 7. Assess that all the detailed information about the selected car part disassembly time (level 2) are present and correct.
- 8. Export the detailed information in Excel format.

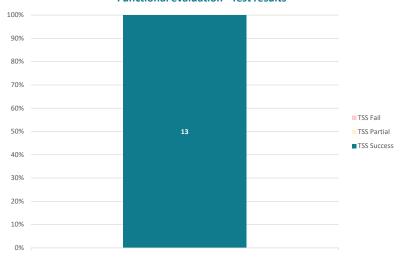
NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

6. Click the info button next to the "Level 1" metric (CWP_DIS_UT_02)

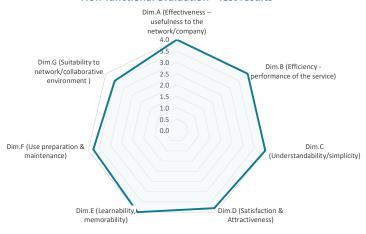
| TS | S _{success} | 13 | l | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
|--------------|--|----------------|----------------|--------------------------------------|------------------------|-------------------|------------|---------------------|-------------|---------|
| Functiona | | | | Expected Results | | | Passed | Remarks | | |
| Access to t | the Circularity We | b Platform | | Circularity Web Platform shows le | ogin page | | YES | | | |
| Login to the | e Platform | | | User successfully logged in | | | YES | | | |
| User redire | ected to home page | ge | | Home page correctly opened | | | YES | | | |
| Search for | "combimeter" car | r part | | List of relevant car parts shows u | р | | YES | | | |
| Select com | ponent to visualiz | ze | | Modules selection page is shown | for the selected com | ponent | YES | | | |
| Click the "0 | OPEN DIS" buttor | in the "Dis | assemblability | Disassembly dashboard is shown | for the selected con | nponent | YES | | | |
| Navigate to | Navigate to the "Disassembly times (manual)" section. "Disassembly times (manual)" section is present and has an info | | | | nas an info | YES | | | | |
| | | | | button next to "Level 1" and "Lev | | | 1123 | | | |
| Press the in | nfo button next to | the "Level : | 2" metric | Disassembly time (level 2) page i | s correctly shown | | YES | | | |
| | parts table | | | Parts table correctly displays all t | he relevant informati | on | YES | | | |
| | Info" button next | to the "Diffic | culty level" | "Difficulty level calculation" popu | p is correctly shown | | YES | | | |
| table head | | | | | | | | | | |
| | difficulty level tal | | | The difficulty level table contains | the proper information | on | YES | | | |
| | Close" ("X") butto | n | | The difficulty level popup closes | | | YES | | | |
| | Export" button | | | Data are exported successfully in | ".xlsx" format | | YES | <u> </u> | | |
| | ictional Evalu | | | | | | | | | |
| Dim.A (Eff | ectiveness use | efulness to | the network/co | ompany) | | | | Total | | 4.0 |
| Ref# | Question | | | | | | | | Answer (0-4 | ,) |
| A1 | It is easy to ur | nderstand | the objective | and benefit of the service to r | ny organization/net | work. | | | 4 | |
| A2 | - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other organizations | | | | | ce. | | | 4 | |
| A4 | | | | | | | | | | |
| Dim.B (Eff | iciency - perforn | nance of th | e service) | | | | | Total | | 4.0 |
| Ref# | Question | | | | | | | | Answer (0-4 | |
| B1 | | resources | required to a | chieve the objectives with the | service are reason | able/moderate. | | | | |
| B2 | The service ru | | | | | | | | 4 | |
| B3 | | | | y steps to achieve the result. | | | | | 4 | |
| B4 | - | | <u> </u> | company/ network. | | | | | 4 | |
| B5 | | | | | | | | | 4 | |
| B5 | | | | fast performance of the tasks | | | | | 4 | |
| В6 | B6 What could be improved to make more value of the tool/service? | | | | | | | | | |
| Dim.C (Un | derstandability/s | simplicity) | | | | | | Total | | 4.0 |
| Ref# | Question | , | | | | | | 1 | Answer (0-4 | |
| C1 | | ructure an | d logic is eas | y and self-clear to understand | and recognizable | | | F | 4 | |
| C2 | | | | my organization and in line wit | | ninology | | | 4 | |
| C2 | The concepts | | | , , | II THEASURE LETT | iiilology | | | 4 | |
| U3 | | | | | l is self avalor -t | u and fallow:- #- | | | 4 | |
| C4 | TREASURE st | yle. | | derstandable. The look and fee | | | | | 4 | |
| C5 | The support to actions require | | processes / t | asks is clear. The user can und | Jerstand his/her ro | le and the purpo | ose of the | | 4 | |
| | | | | | | | | | | |

| | - | | | | | |
|-------------|---|-------------------|-------|--------------|-----|--|
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear required for input. | what is | 4 | | | |
| C7 | The output of the service is clear and understandable. | 4 | | | | |
| C8 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.D (Sati | sfaction & Attractiveness) | | Total | | 3.8 | |
| Ref# | Question | <u> </u> | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the stangain. | atus and starting | | 4 | | |
| D3 | The mental workload when using the service is low. | | | 4 | | |
| D4 | The service rewards the user also personally | | | 3 | | |
| D5 | I could recommend the service for other people/organizations. | | | 4 | | |
| D6 | What could be improved to make more value of the tool/service? | • | | | | |
| Do | | | | | | |
| Dim.E (Lea | rnability, memorability) | | Total | | 4.0 | |
| Ref# | Question | | | Answer (0-4) | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | | 4 | | |
| E4 | The service offers sufficient training support. | | | 4 | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 3.8 | |
| Ref# | Question | | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easil available for the service. | y made | | 3 | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 3 | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | - | | | | |
| Dim.G (Suit | lability to network/collaborative environment) | | Total | | 3.5 | |
| Ref# | Question | | | Answer (0-4) | | |
| | The service supports collaboration and interoperability for my network. | | | 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | | |
| G3 | The service takes into account safety and security. | | | 3 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | 4 | | | | |
| Results A | ssessment | | | | | |
| | | | | | | |
| Functional | Dimension | | | | | |
| Functional | Dimension | - 1 | | TSS Results | | |
| Functional | | - | | TSS Results | 13 | |
| | 98S | | | TSS Results | 13 | |





| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.8 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 3.8 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.9 | | | | |





TREASURE Circularity Web Platform - Eco-Designer #1 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_UT_01 | Components involved | TREASURE Circularity Web Platform | | | | |
|-------------------|---|---------------------|---|--|--|--|--|
| Actors involved | Laura del Hoyo (WALTER PACK) | | Contact Point Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | |
| Short Description | Short Description Visualize basic eco-design information about a car part in the Eco-Design Dashboard | | | | | | |

Visualize Subjected Georgia information about a our part in the 200-50

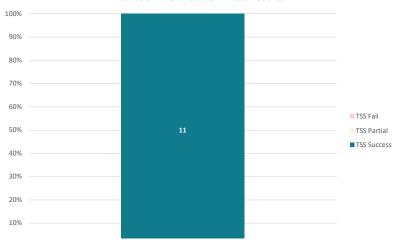
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

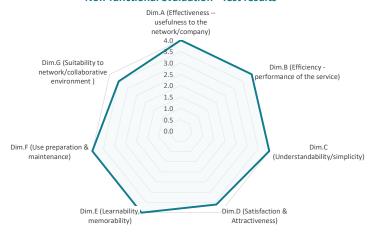
| | | rrectly reported in its dedicated c | | | | T00 | | _ |
|--|---|---|--|-----------------|--------|---------------------------------------|---|---------------------------|
| | S _{success} 11 | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
| Functional | | Expected Results | | | Passed | Remarks | | |
| | the Circularity Web Platform | Circularity Web Platform shows log | gin page | | YES | | | |
| Login to the | | User successfully logged in | | | YES | | | |
| | ected to home page | Home page correctly opened | | | YES | | | |
| | "combimeter" car part | List of relevant car parts shows up | | | YES | | | |
| | ponent to visualize | Modules selection page is shown for | | | YES | | | |
| | OPEN ECO" button in the "Eco-Design | Eco-design dashboard is shown for | Eco-design dashboard is shown for the selected component | | | | | |
| Module" ca | | All and a section for the section | | | 1/=- | | | |
| | nponent overall stats section | All relevant information for the des | | | YES | | | |
| Assess "10 | p 5 metals" section | All relevant information for the des | irea section is aispia | ayed | YES | It's difficult to see clearly the fig | ures of the metals with | the lowest weight content |
| right of the | | All relevant information for the des | | saccordingly | YES | | | |
| | mouse over the info icon next to the "By | A tooltip explaining the sub-title me | eaning appears | | YES | | | |
| _ | amic rarity" sub-section title | | | | | | | |
| Assess the | "Plastic characterization" section | All relevant information for the plas displayed, the plastic characterizat | | | YES | | | |
| Assess the | "Disassemblability metrics" section | The appropriate disassemblability | metrics are shown | | YES | | | |
| | "Eco-Design recommendations" | The proper eco-design recommend with the metrics above | | | YES | | | |
| section | "Semantic Social Network Analysis" | The SSNA tool description is clear | | Э | YES | | | |
| | Open documentation" button | The SSNA tool documentation ope | | | YES | | | |
| Click the "C | Open SSNA Tool" button | The SSNA tool opens in a new tab | | | YES | | | |
| | nctional Evaluation | | | | | | | |
| Dim.A (Effe | ectiveness usefulness to the network/ | company) | | | | Total | | 4.0 |
| Ref# | Question | | | | | Answer (0-4) | | |
| A1 | It is easy to understand the objective | | | | | | 4 | |
| | The outcome of the service is impo | ortant / useful for the company/ne | twork. The service | e creates value | for my | | | |
| | company &network, for example by | | | | | | | |
| | - saving costs | | | | | | | |
| | | | | | | | | |
| y y | | | | | | | | |
| | increasing incomesaving time, accelerating processe | s | | | | | | |
| A2 | saving time, accelerating processedecreasing risks | s | | | | | 4 | |
| A2 | - saving time, accelerating processe - decreasing risks - improving quality | s | | | | | 4 | |
| A2 | saving time, accelerating processe decreasing risks improving quality sharing information | s | | | | | 4 | |
| A2 | saving time, accelerating processe decreasing risks improving quality sharing information attracting customers | s | | | | | 4 | |
| A2 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation | | | | | | 4 | |
| | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o | rganizations | ala wide ala | | | | | |
| A2 A3 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus | rganizations siness objectives / perform the ta | sks with the servic | ce. | | | 4 | |
| | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o | rganizations siness objectives / perform the ta | sks with the servic | ce. | | | | |
| A3 A4 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r | rganizations siness objectives / perform the ta | sks with the servic | ce. | | Total | | 40 |
| A3 A4 Dim.B (Effi | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) | rganizations siness objectives / perform the ta | sks with the service | ce. | | Total | 4 | 4.0 |
| A3 A4 Dim.B (Effi | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question | rganizations siness objectives / perform the ta nore value of the tool/service? | | | | Total | 4 Answer (0-4) | 4.0 |
| A3 A4 Dim.B (Effi Ref # | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned but What could be improved to make r iciency - performance of the service) Question The time and resources required to | rganizations siness objectives / perform the ta nore value of the tool/service? | | | | Total | 4 Answer (0-4) | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a | rganizations siness objectives / perform the ta- more value of the tool/service? achieve the objectives with the se | | | | Total | Answer (0-4) 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r ciciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too make | rganizations siness objectives / perform the tannore value of the tool/service? achieve the objectives with the sent standard the sent standard the result. | | | | Total | Answer (0-4) 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m | rganizations siness objectives / perform the ta nore value of the tool/service? achieve the objectives with the se ny steps to achieve the result. y company/ network. | | | | Total | 4 Answer (0-4) 4 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible | rganizations siness objectives / perform the tamore value of the tool/service? achieve the objectives with the sent steps to achieve the result. y company/ network. & fast performance of the tasks. | | | | Total | Answer (0-4) 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m | rganizations siness objectives / perform the tamore value of the tool/service? achieve the objectives with the sent steps to achieve the result. y company/ network. & fast performance of the tasks. | | | | Total | 4 Answer (0-4) 4 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible What could be improved to make r | rganizations siness objectives / perform the tamore value of the tool/service? achieve the objectives with the sent steps to achieve the result. y company/ network. & fast performance of the tasks. | | | | | 4 Answer (0-4) 4 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible | rganizations siness objectives / perform the tamore value of the tool/service? achieve the objectives with the sent steps to achieve the result. y company/ network. & fast performance of the tasks. | | | | Total | 4 Answer (0-4) 4 4 4 4 | 4.0 |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible What could be improved to make r | rganizations siness objectives / perform the tamore value of the tool/service? achieve the objectives with the sent steps to achieve the result. y company/ network. & fast performance of the tasks. | | | | | 4 Answer (0-4) 4 4 4 4 | |
| A3 A4 Dim. B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned but What could be improved to make r ciciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible What could be improved to make r derstandability/simplicity) | rganizations siness objectives / perform the tar nore value of the tool/service? achieve the objectives with the se ny steps to achieve the result. y company/ network. & fast performance of the tasks. nore value of the tool/service? | ervice are reasona | | | | 4 Answer (0-4) 4 4 4 4 4 4 | |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned bus What could be improved to make r Iciency - performance of the service) Question The time and resources required to a The service does not require too ma All the functions are beneficial for my The service structure allows flexible What could be improved to make r derstandability/simplicity) Question The service structure and logic is ea | rganizations siness objectives / perform the tar nore value of the tool/service? achieve the objectives with the se ny steps to achieve the result. y company/ network. & fast performance of the tasks. nore value of the tool/service? sy and self-clear to understand a | ervice are reasona | ible/moderate. | | | Answer (0-4) 4 4 4 4 4 Answer (0-4) | |
| A3 A4 Dim.B (Effi Ref # B1 B2 B3 B4 B5 B6 Dim.C (Une Ref # | - saving time, accelerating processe - decreasing risks - improving quality - sharing information - attracting customers - boosting learning and innovation - supporting networking with other o It is easy to achieve the planned but What could be improved to make r iciency - performance of the service) Question The time and resources required to a The service runs fast enough. The service does not require too ma All the functions are beneficial for m The service structure allows flexible What could be improved to make r derstandability/simplicity) Question | rganizations siness objectives / perform the tar nore value of the tool/service? achieve the objectives with the se ny steps to achieve the result. y company/ network. & fast performance of the tasks. nore value of the tool/service? sy and self-clear to understand a r my organization and in line with | ervice are reasona | ible/moderate. | | | Answer (0-4) 4 4 4 4 4 Answer (0-4) | |

| C4 | The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. | | 4 | | | |
|------------|--|-------------|------------|--|--|--|
| C5 | The support to business processes / tasks is clear. The user can understand his/her role and the purpose actions required. | of the | 4 | | | |
| C6 | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what | is | 4 | | | |
| C7 | required for input. The output of the service is clear and understandable. | | 4 | | | |
| | What could be improved to make more value of the tool/service? | | 4 | | | |
| C8 | What could be improved to make more value of the toomservice: | | | | | |
| Dim.D (Sat | sfaction & Attractiveness) | Total | 3.6 | | | |
| Ref# | Question | 111 | er (0-4) | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status at again. | nd starting | 3 | | | |
| D3 | The mental workload when using the service is low. | | 4 | | | |
| D4 | The service rewards the user also personally | | 3 | | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | | |
| D6 | What could be improved to make more value of the tool/service? | • | | | | |
| טט | | | | | | |
| Dim.E (Lea | rnability, memorability) | Total | 4.0 | | | |
| Ref# | Question | Answe | er (0-4) | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | | |
| E4 | The service offers sufficient training support. | | 4 | | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | |
| LJ | | | | | | |
| Dim.F (Use | preparation & maintenance) | Total | 4.0 | | | |
| Ref# | Question | Answe | er (0-4) | | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily mad available for the service. | le . | 4 | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | • | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | 4 | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| Dim.G (Sui | ability to network/collaborative environment) | Total | 3.5 | | | |
| Ref# | Question | Answe | | | | |
| G1 | The service supports collaboration and interoperability for my network. | | 4 | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 3 | | | |
| G3 | The service takes into account safety and security. | | 3 | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | | |
| Results A | ssessment | | | | | |
| Functional | Dimension | | | | | |
| TSS Succ | 98S | TSS R | tesults 11 | | | |
| TSS Partia | I | | 0 | | | |
| TSS Fail | | | 0 | | | |
| | | | | | | |





| Non-functional Dimension | | | | | |
|--|---------|--|--|--|--|
| | Results | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 | | | | |
| Dim.B (Efficiency - performance of the service) | 4.0 | | | | |
| Dim.C (Understandability/simplicity) | 4.0 | | | | |
| Dim.D (Satisfaction & Attractiveness) | 3.6 | | | | |
| Dim.E (Learnability, memorability) | 4.0 | | | | |
| Dim.F (Use preparation & maintenance) | 4.0 | | | | |
| Dim.G (Suitability to network/collaborative environment) | 3.5 | | | | |
| | Total | | | | |
| | 3.9 | | | | |





TREASURE Circularity Web Platform - Eco-Designer #2 - Test Sheet

Test Case References

| Test Case ID | CWP_ECO_U1_02 (CWP_ECO_UT_03) (CWP_ECO_UT_04) | Components involved | TREASURE Circularity Web Platform | | | | | |
|-------------------|--|---------------------|--|--|--|--|--|--|
| Actors involved | Laura del Hoyo (WALTER PACK) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | | | |
| Short Description | Short Description Access and expert energies information about material composition for a car part in the Eac Design Descharge | | | | | | | |

Test Script

- Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN ECO" button in the "Eco-Design Module" card.
- 5. Navigate to the "By weight" sub-section of the "Top 5 metals" section.
- 6. Click the "Details" button above the corresponding chart.
- 7. Assess that all the detailed information about the selected aspect for the desired car part are present and correct
- 8. Export the detailed information in Excel format.

NOTE: The following procedures have a similar interaction model to the current one, and are grouped under the same test case for brevity:

- 5. Navigate to the "By thermodynamic rarity" sub-section of the "Top 5 metals" section. (CWP_ECO_UT_03) 5. Navigate to the "Plastic characterization" section (CWP_ECO_UT_04)

| TSS _{success} | 13 | | TSS _{partial} | 0 | | TSS _{fail} 0 | | 0 | |
|--|-----------------|---------------|---|--------------------|------------------|-----------------------|---|-----|--|
| Functionalities | | | Expected Results | | | Passed | Remarks | - | |
| Access to the Circularity We | eb Platform | | Circularity Web Platform shows login page | | | YES | | | |
| Login to the Platform | | | User successfully logged in | | | YES | | | |
| User redirected to home pa | ge | | Home page correctly opened | | | YES | | | |
| Search for "combimeter" ca | ır part | | List of relevant car parts shows up | | | YES | | | |
| Select component to visuali | ze | | Modules selection page is shown for | r the selected co | mponent | YES | | | |
| Click the "OPEN ECO" butto | on in the "Eco- | -Design | Eco-design dashboard is shown for | the selected com | ponent | YES | | | |
| Navigate to the "By weight" metals" section | sub-section o | f the "Top 5 | "By weight" sub-section of the "Top has a "Details" button above the co | | | YES | | | |
| Press the "Details" button al stacked bar chart | bove the corre | esponding | "Metals by weight" page is correctly | shown | | YES | | | |
| Select a filtering method fro next to "Show" | | | | ne relevant inform | ation accounting | YES | | | |
| Select a filtering method fro next to "Assess" | m the dropdo | wn menu | Metals table correctly displays all the for the user selection | ne relevant inform | ation accounting | YES | | | |
| Assess the "Metals by weigh | ht" table | | Metals table correctly displays all the selected filtering methods | e relevant inform | ation for the | YES | | | |
| Hover the mouse over the ir over the total weight", "Suppole column titles | | | 3 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | YES | | | |
| Press the "Export" button | | | Data are exported successfully in ".xlsx" format, following the applied filters | | | YES | The cell format of the excel file is not in % | | |
| Non-Functional Evalu | ıation | | | | | | | | |
| Dim.A (Effectiveness us | efulness to th | ne network/co | ompany) | | | | Total | 3.7 | |

| Ref# | Question | Answer (0-4) |
|------|--|--------------|
| A1 | It is easy to understand the objective and benefit of the service to my organization/network. | 4 |
| | The outcome of the service is important / useful for the company/network. The service creates value for my | |
| | company &network, for example by | |
| | - saving costs | |
| | - increasing income | |
| | - saving time, accelerating processes | |
| A2 | - decreasing risks | 3 |
| | - improving quality | |
| | - sharing information | |
| | - attracting customers | |
| | - boosting learning and innovation | |
| | - supporting networking with other organizations | |
| A3 | It is easy to achieve the planned business objectives / perform the tasks with the service. | 4 |
| | WILL THE THE THE THE THE THE THE THE THE THE | |

| What could be improved to make more value of the tool/service? |
|--|
| |

The service structure and logic is easy and self-clear to understand and recognizable. The concepts are understandable for my organization and in line with TREASURE terminology

| A4 | | | | | | | |
|------------|--|---|--------------|----------|--|--|--|
| Dim.B (Eff | iciency - performance of the service) | | Total | 3.8 | | | |
| Ref# | Question | | Answer (0-4) | | | | |
| B1 | B1 The time and resources required to achieve the objectives with the service are reasonable/moderate. | | 4 | | | | |
| B2 | B2 The service runs fast enough. 4 | | | 1 | | | |
| В3 | The service does not require too many steps to achieve the result. | | 4 | | | | |
| B4 | B4 All the functions are beneficial for my company/ network. 3 | | | 3 | | | |
| B5 | The service structure allows flexible & fast performance of the tasks. | | 4 | | | | |
| В6 | What could be improved to make more value of the tool/service? | | | | | | |
| ВО | 80 | | | | | | |
| Dim.C (Un | derstandability/simplicity) | | Total | 4.0 | | | |
| Ref# | Question | i | Answe | er (0-4) | | | |

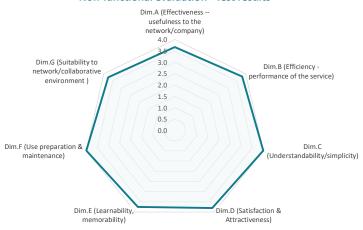
| The responses to user actions are understandable. The look and feel is self explanatory and follows the TREASURE style. The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. The output of the service is clear and understandable. | |
|--|-----|
| The support to business processes / tasks is clear. The user can understand his/her role and the purpose of the actions required. The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. | |
| C5 actions required. C6 The service is simple enough for practical use. The tasks do not look complex to perform. It is clear what is required for input. 4 | |
| Co required for input. | |
| | |
| | |
| What could be improved to make more value of the tool/service? | |
| | |
| | 3.8 |
| Ref# Question Answer (0-4) | |
| D1 The service is attractive to the user. I feel satisfied and comfortable when using the service. 4 | |
| D2 I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting again. | |
| D3 The mental workload when using the service is low. 4 | |
| D4 The service rewards the user also personally 3 | |
| D5 I could recommend the service for other people/organizations. 4 | |
| D6 What could be improved to make more value of the tool/service? | |
| | |
| Dim.E (Learnability, memorability) Total | 3.8 |
| Ref# Question Answer (0-4) | |
| E1 It is easy to start using the service and to perform the main tasks. | |
| E2 It is easy to learn new features/ functionalities. 4 | |
| E3 When coming back to an unfinished task, it is easy to remember / identify the actions needed. 3 | |
| E4 The service offers sufficient training support. 4 | |
| What could be improved to make more value of the tool/service? | |
| | |
| | _ |
| | 1.0 |
| Ref # Question Answer (0-4) | l.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 | 1.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 | 1.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 | 1.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 | 5.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 | 5.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 | 5.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 F7 The service is easy to take up also for SMEs. 4 | 5.0 |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 | 1.0 |
| Ref# Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 F7 The service is easy to take up also for SMEs. 4 | 1.0 |
| Ref# Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 F7 The service is easy to take up also for SMEs. 4 F8 The service does not require extensive change of business processes. 4 | 5.0 |
| Ref # Iquestion | 3.8 |
| Ref # Question | |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 F7 The service is easy to take up also for SMEs. 4 F8 The service does not require extensive change of business processes. 4 F9 The service does not require high maintenance. 4 What could be improved to make more value of the tool/service? 4 Dim.G (Suitability to network/collaborative environment) Total 3 Ref # Question Answer (0-4) G1 The service supports collaboration and interoperability for my network. 4 | |
| Ref # Question | |
| Ref # Question Answer (0-4) F1 The take-up of the service does not require high preparation. 4 F2 Technical installation does not require specific setups or additional downloads. 4 F3 The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. 4 F4 The service can be easily customized/ configured to my environment/ network. 4 F5 The service can be easily shared in the network. 4 F6 The service does not require specific knowledge from the users. 4 F7 The service is easy to take up also for SMEs. 4 F8 The service does not require extensive change of business processes. 4 F9 The service does not require high maintenance. 4 What could be improved to make more value of the tool/service? 4 Dim.G (Suitability to network/collaborative environment) Total 3 Ref # Question Answer (0-4) G1 The service supports collaboration and interoperability for my network. 4 | |
| Ref # Question | |
| Ref # Question | |
| Ref # Question | |
| Ref # Question | |
| Ref # Question | |





| 10% | |
|------|--|
| 10/0 | |
| | |
| 0% | |

| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 3.8 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.8 |





TREASURE Circularity Web Platform - Recycler #1 - Test Sheet

Test Case References

| | Test Case ID | CWP_REC_UT_01 | Components involved | TREASURE Circularity Web Platform | | | |
|--|-----------------|---|---------------------|--|--|--|--|
| | Actors involved | s involved Laura del Hoyo (WALTER PACK) Contact Point | | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Chart Description Visualine has a varieties information should appropriate Description | | | | | | | |

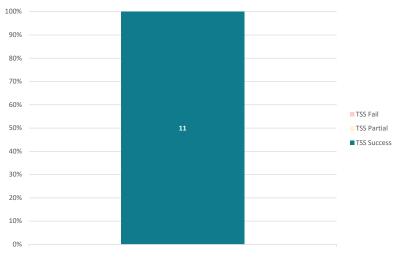
Test Script

- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Assess that every information expected is correctly reported in its dedicated card and is displayed in the appropriate format.

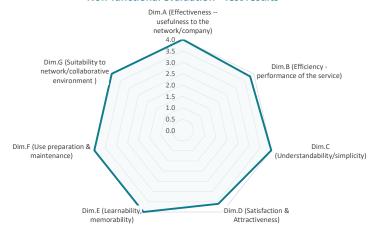
| TSS _s | success | 11 | i | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
|--|--|---------------|------------------|---|-------------------------------------|---------------------------------------|--------|---------------------|-------------------|-----|
| Functionalitie | | | • | Expected Results | | | Passed | Remarks | <u> </u> | |
| Access to the | Circularity W | eb Platform | | Circularity Web Platform shows log | in page | | YES | | | |
| Login to the P | Platform | | | User successfully logged in | | | YES | | | |
| User redirecte | ed to home pa | ge | | Home page correctly opened | | | YES | | | |
| Search for "co | ombimeter" ca | r part | | List of relevant car parts shows up | | | YES | | | |
| Select compo | onent to visual | ize | | Modules selection page is shown for | r the selected con | ponent | YES | | | |
| Click the "OPI Module" card | | on in the "Di | isassemblability | Recyclability dashboard is shown for | or the selected con | nponent | YES | | | |
| Assess compo | onent overall | stats section | ı | All relevant information for the desi | red section is displ | ayed | YES | | | |
| Assess "Optin | mization objec | tive of recy | cling" section | All relevant recycling optimization of | bjectives is displa | yed | YES | | | |
| Assess "Gene section | eral composition | on build-up" | pie chart | All relevant information for the desi | red section is displ | ayed | YES | | | |
| Assess "Recy | cling rates" se | ection | | All relevant information for the desi respect to the current recyclability | | ayed with | YES | | | |
| | ssess "Recycling rates" section select a different recycling level using the dropdow enu at the top of the section ssess the "Individual recycling rates" sub-section select a different processing route using the opdown menu next to the "Details" button. ssess "Feedback for recyclers" section sess the "Add feedback" button sert some feedback text, then press the "Add | | the dropdown | The recycling rates and processing | routes change ac | cordingly | YES | | | |
| | | | sub-section | All relevant information for the desi respect to the current recyclability | | | YES | | | |
| | | | | The individual recycling rates flower | r chart updates ac | cordingly | YES | | | |
| | | | | All relevant information for the desi | red section is displ | ayed | YES | | | |
| Press the "Ad | ld feedback" b | utton | | The add feedback popup appears | | | YES | | | |
| Insert some fe feedback" but | | then press t | he "Add | The feedback is correctly inserted in | nto the feedbacks | table | YES | | | |
| Non-Functional Evaluation | | | | | | | | | | |
| Dim.A (Effectiveness usefulness to the network/company) | | | | | | Total | | 4.0 | | |
| Ref# | Question | | | | | | | | Answer (0-4) | |
| A1 It | t is easy to u | nderstand | d the objective | and benefit of the service to my | organization/net | work. | | Г | 4 | |
| The outcome of the service is impo company &network, for example by - saving costs - increasing income - saving time, accelerating processes - decreasing risks - improving quality - sharing information - attracting customers | | | example by | ann, accar or are companyine | | o o o o o o o o o o o o o o o o o o o | , | | 4 | |
| - | boosting lea | rning and | | ronizationo | | | | | | |
| | | | with other org | ganizations ness objectives / perform the tas | ks with the servi | re | | | 4 | |
| | | | | ore value of the tool/service? | *********************************** | | | | · · | |
| A4 | Triat could I | , mprov | od to make III | or value of the tool/service! | | | | | | |
| Dim D /Fff: : | anauf | mana f 11 | na nami\ | | | | | Tota! | | 2.0 |
| Dim.B (Efficie | | mance of th | ie service) | | | | | Total | | 3.8 |
| — — — — | Question The time and | resources | required to a | chieve the objectives with the se | rvice are reason | able/moderate. | | | Answer (0-4) 4 | |
| B2 T | The service r | uns fast er | nough. | | | | | | 4 | |
| B3 T | The service o | loes not re | quire too man | y steps to achieve the result. | | | | | 4 | |
| B4 A | All the function | ons are be | neficial for my | company/ network. | | | | | 3 | |
| B5 T | The service s | tructure a | llows flexible 8 | fast performance of the tasks. | | | | | 4 | |
| В6 | What could b | oe improv | ed to make m | ore value of the tool/service? | | | | | | |
| Dim.C (Under | erstandability/ | simplicity) | | | | | | Total | | 4.0 |
| | Question | | | | | | | ! | Answer (0-4) | 2.0 |
| <u> </u> | | tructure a | nd logic is eas | y and self-clear to understand ar | nd recognizable | | | | 4 | |
| | | | | my organization and in line with | | ninology | | | 4 | |
| | - | | | , , | THE ACOUNT TOTAL | ology | | | 4 | |
| | | | cient guidance | derstandable. The look and feel i | e calf avalanata | v and follows th | 10 | | 7 | |
| | ine response | รอ เบ นรษา 8 | actions are uno | aciaidiuable. The look and feel l | ə əcii expianator | y and ioliows tr | IC | I | 4 | |

| | The support to business processes / tasks is clear. The user can understand his/her role and the p | urnage of the | | | | |
|------------|---|-------------------|-------|--------------|-----|--|
| C5 | actions required. | urpose of the | | 4 | | |
| | The service is simple enough for practical use. The tasks do not look complex to perform. It is clear | r what is | | | | |
| C6 | required for input. | | | 4 | | |
| C7 | The output of the service is clear and understandable. | | | 4 | | |
| C8 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| | sfaction & Attractiveness) | | Total | | 3.6 | |
| Ref# | Question | | | Answer (0-4) | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | | 4 | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the si | atus and starting | | 3 | | |
| | again. | | | | | |
| D3 | The mental workload when using the service is low. | | | 4 | | |
| D4 | The service rewards the user also personally | | | 3 4 | | |
| D5 | I could recommend the service for other people/organizations. What could be improved to make more value of the tool/service? | | | 4 | | |
| D6 | what could be improved to make more value of the tool/service? | | | | | |
| Dim E (Lea | I rnability, memorability) | | Total | | 4.0 | |
| Ref# | Question | | Total | Answer (0-4) | 4.0 | |
| E1 | It is easy to start using the service and to perform the main tasks. | | | 4 | | |
| E2 | It is easy to learn new features/ functionalities. | | | 4 | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | | |
| E4 | The service offers sufficient training support. | | 4 | | | |
| | What could be improved to make more value of the tool/service? | L | | | | |
| E5 | | | | | | |
| Dim.F (Use | preparation & maintenance) | | Total | | 4.0 | |
| Ref# | Question | | | Answer (0-4) | | |
| F1 | The take-up of the service does not require high preparation. | | | 4 | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | | 4 | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be eas | ily made | 4 | | | |
| гэ | available for the service. | | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | |
| F9 | The service does not require high maintenance. | | | 4 | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | |
| | | | | | | |
| | tability to network/collaborative environment) | | Total | | 4.0 | |
| Ref# | Question The continuous currents collaboration and intercongrability for my network | | | Answer (0-4) | | |
| G1 | The service supports collaboration and interoperability for my network. | | | 4 | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | | 4 | | |
| G3 | The service takes into account safety and security. | | | 4 | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | | 4 | | |
| Results A | Assessment | | | | | |
| Functional | Dimension | | | | | |
| | | ! | | TSS Results | | |
| TSS Succ | ess | | | | | |
| TSS Partia | | | | | C | |
| | | | | | | |
| TSS Fail | | | | | C | |





| Non-functional Dimension | |
|--|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 4.0 |
| Dim.B (Efficiency - performance of the service) | 3.8 |
| Dim.C (Understandability/simplicity) | 4.0 |
| Dim.D (Satisfaction & Attractiveness) | 3.6 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 4.0 |
| | Total |
| | 3.9 |





TREASURE Circularity Web Platform - Recycler #2 - Test Sheet

Test Case References

| Test Case ID | CWP_REC_UT_02 | Components involved | TREASURE Circularity Web Platform | | | |
|--|------------------------------|---------------------|--|--|--|--|
| Actors involved | Laura del Hoyo (WALTER PACK) | Contact Point | Business: Veronica Antonello (veronica.antonello@txtgroup.com) Technical: Mattia Calabresi (mattia.calabresi@txtgroup.com) | | | |
| Short Description Assess specific information about individual requaling rates for a car part in the Requelability Desphared | | | | | | |

Short Description Assess specific information about individual recycling rates for a car part in the Recyclability Dashboa

Test Script

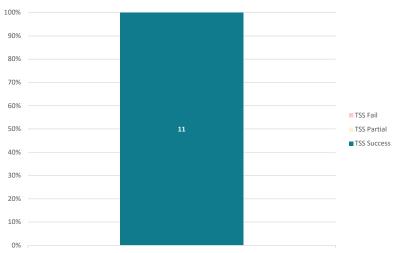
- 1. Access the TREASURE Circularity Web Platform.
- 2. Login with the evaluation credentials provided.
- 3. In the search bar, search for the "combimeter" component and select the first search result.
- 4. Click the "OPEN REC" button in the "Recyclability Module" card.
- 5. Navigate to the "Individual recycling rates" sub-section of the "Recycling rates" section.
- 6. Click the "Details" button net to the recycling routes dropdown menu.

The output of the service is clear and understandable.

What could be improved to make more value of the tool/service?

| 7. Assess | that all the recycling rates for the sele | cted recycling level and recycling | ig route are preser | nt and correct. | | | | |
|---------------|---|---|-------------------------|-------------------|--------------|---------------------------------|--------------|-----|
| | S _{success} 11 | TSS _{partial} | 0 | | | TSS _{fail} | | 0 |
| Functionali | lities | Expected Results | | | Passed | Remarks | | |
| Access to the | he Circularity Web Platform | Circularity Web Platform shows lo | gin page | | YES | | | |
| Login to the | e Platform | User successfully logged in | | | YES | | | |
| User redired | ected to home page | Home page correctly opened | | | YES | | | |
| Search for " | "combimeter" car part | List of relevant car parts shows up |) | | YES | | | |
| Select comp | ponent to visualize | Modules selection page is shown | for the selected comp | ponent | YES | | | |
| Click the "O | OPEN REC" button in the "Recyclability | Recyclability dashboard is shown | for the selected com | ponent | YES | | | |
| | the "Individual recycling rates" sub- | "Individual recycling rates" sub-se | | | | | | |
| section of th | he "Recycling rates" section | section is present and has a "Deta | ils" button next to the | e recycling | YES | | | |
| Proce the "F | Details" button next to the recycling routes | routes dropdown menu "Individual recycling rates" page is | corroctly shown | | | | | |
| dropdown n | | Individual recycling rates page is | s correctly shown | | YES | | | |
| | cyclability level from the top-right | Recycling rates table correctly dis | nlavs all the relevant | t information | | | | |
| dropdown menu | | accounting for the user selection | plays an the relevant | momaton | YES | | | |
| | cycling route from the second dropdown | Recycling rates table correctly dis | plays all the relevant | t information | | | | |
| menu on the | | accounting for the user selection | , | | YES | | | |
| Assess the ' | "Rates by recycling route" table | Recycling rates table correctly dis | plays all the relevant | t information for | | | | |
| | | the selected recyclability level and | | | YES | | | |
| Non-Fun | nctional Evaluation | | | | | | | |
| | ectiveness usefulness to the network/ | company) | | | | Total | | 3.7 |
| | Question | | | | | ļ . | Answer (0-4) | |
| A1 | It is easy to understand the objective | e and benefit of the service to m | y organization/netv | work. | | | 4 | |
| | The outcome of the service is impo | rtant / useful for the company/ne | etwork. The service | e creates value | for my | | | |
| | company &network, for example by | | | | - | | | |
| | - saving costs | | | | | | | |
| | - increasing income | | | | | | | |
| | - saving time, accelerating processe | S | | | | | | |
| A2 | - decreasing risks | | | | | | 3 | |
| | - improving quality | | | | | | | |
| | - sharing information | | | | | | | |
| | attracting customers boosting learning and innovation | | | | | | | |
| | - supporting networking with other o | rganizations | | | | | | |
| A3 | It is easy to achieve the planned bus | | sks with the service | ce. | | | 4 | |
| | What could be improved to make r | | | | | | | |
| A4 | , | | for attracting cust | omers responsib | ole with the | sustainability of their product | s | |
| Dim.B (Effic | iciency - performance of the service) | , , , , , | <u> </u> | | | Total | | 3.8 |
| | IQuestion | | | | | 1 | Answer (0-4) | |
| B1 | The time and resources required to | achieve the objectives with the s | ervice are reasona | ble/moderate. | | | 4 | |
| B2 | The service runs fast enough. | | | 2,230.000 | | | 4 | |
| B3 | The service does not require too ma | ny steps to achieve the result | | | | | 4 | |
| B4 | All the functions are beneficial for m | | | | | | 3 | |
| B5 | The service structure allows flexible | <u> </u> | | | | | 4 | |
| | What could be improved to make r | <u>'</u> | | | | | 7 | |
| В6 | Triac could be improved to make i | note value of the tooksel vice! | | | | | | |
| Dim C (Upo | derstandability/simplicity) | | | | | Total | | 4.0 |
| Ref# | Question | | | | | iotai | Answer (0-4) | 4.0 |
| C1 | The service structure and logic is ea | sy and self clear to understand | and recognizable | | | | 4 | |
| | · | <u> </u> | | inalagu | | | | |
| C2 | The concepts are understandable fo | | 1 I REASURE TERMI | inology | | | 4 | |
| C3 | The service offers sufficient guidanc | | . 16 | 16.19 | | | 4 | |
| C4 | The responses to user actions are un | nderstandable. The look and feel | is self explanatory | and follows the | ! | | 4 | |
| | TREASURE style. The support to business processes / | tacke is clear. The upon one and | aretand hig/har rale | e and the nurse | so of the | | | |
| C5 | actions required. | tasks is clear. The user can und | erstand ms/ner role | e and the purpor | se or trie | | 4 | |
| | The service is simple enough for pra | ctical use. The tasks do not look | complex to perfor | m It is clear wh | at is | | | |
| C6 | required for input. | sasa dos. The tasks do not look | complex to perior | 16 10 01001 10111 | a. 10 | | 4 | |
| 07 | The sustaint of the complete is also as | d dt d - - | | | | | 4 | |

| m.D (Sat | isfaction & Attractiveness) | Total | | 3.8 | | | |
|-----------|---|---------|--------------|-----|--|--|--|
| f # | Question | | Answer (0-4) | | | | |
| D1 | The service is attractive to the user. I feel satisfied and comfortable when using the service. | | 4 | | | | |
| D2 | I can keep the control of the service, for example by pausing& continuing, canceling, saving the status and starting | | 4 | | | | |
| DZ | again. | | 4 | | | | |
| D3 | The mental workload when using the service is low. | | 4 | | | | |
| D4 | The service rewards the user also personally | | 3 | | | | |
| D5 | I could recommend the service for other people/organizations. | | 4 | | | | |
| D6 | What could be improved to make more value of the tool/service? | | | | | | |
| | | | | | | | |
| | rnability, memorability) | Total | | 4.0 | | | |
| <u> </u> | Question | ! | Answer (0-4) | | | | |
| E1 | It is easy to start using the service and to perform the main tasks. | | 4 | | | | |
| E2 | It is easy to learn new features/ functionalities. | | 4 | | | | |
| E3 | When coming back to an unfinished task, it is easy to remember / identify the actions needed. | | 4 | | | | |
| E4 | The service offers sufficient training support. | | 4 | | | | |
| E5 | What could be improved to make more value of the tool/service? | | | | | | |
| | | | | | | | |
| | preparation & maintenance) | Total | | 4.0 | | | |
| f# | Question | <u></u> | Answer (0-4) | | | | |
| F1 | The take-up of the service does not require high preparation. | | 4 | | | | |
| F2 | Technical installation does not require specific setups or additional downloads. | | 4 | | | | |
| F3 | The data needed by the service exist in my company/network in the proper format and can be easily made available for the service. | | 4 | | | | |
| F4 | The service can be easily customized/ configured to my environment/ network. | | 4 | | | | |
| F5 | The service can be easily shared in the network. | | 4 | | | | |
| F6 | The service does not require specific knowledge from the users. | | 4 | | | | |
| F7 | The service is easy to take up also for SMEs. | | 4 | | | | |
| F8 | The service does not require extensive change of business processes. | | 4 | | | | |
| F9 | The service does not require high maintenance. | | 4 | | | | |
| F10 | What could be improved to make more value of the tool/service? | | | | | | |
| n.G (Sui | tability to network/collaborative environment) | Total | | 3.8 | | | |
| # | Question | ! | Answer (0-4) | 0.0 | | | |
| G1 | The service supports collaboration and interoperability for my network. | | 4 | | | | |
| G2 | The service is suitable for heterogeneous users and different networks. | | 4 | | | | |
| G3 | The service takes into account safety and security. | | 3 | | | | |
| G4 | The service usage does not require high negotiation or complex agreements in the network. | | 4 | | | | |
| esults A | Assessment | | | | | | |
| nctional | Dimension | | | | | | |
| | | ! | TSS Results | | | | |
| SS Succ | ess | | | | | | |
| | | | | | | | |
| SS Partia | | | | | | | |



| Non-functional Dimension | |
|---|---------|
| | Results |
| Dim.A (Effectiveness usefulness to the network/company) | 3.7 |
| Dim.B (Efficiency - performance of the service) | 3.8 |

| Dim.C (Understandability/simplicity) | 4.0 |
|--|-------|
| Dim.D (Satisfaction & Attractiveness) | 3.8 |
| Dim.E (Learnability, memorability) | 4.0 |
| Dim.F (Use preparation & maintenance) | 4.0 |
| Dim.G (Suitability to network/collaborative environment) | 3.8 |
| | Total |
| | 3.9 |

