REFRAME

Circular Economy strategy FRAMEwork for sustainable SMEs

REFRAME iLearn Tool Technical Specification Report

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Contents

1 List of Abbreviations

CE	Circular Economy
CE S-R Tool	Circular Economy Self-Rate Tool

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2 Introduction

This Technical Specification Report specifies the requirements of the REFRAME iLearn Tool, which will be used as an Open Educational Resource (OER) for providing unlimited access to the REFRAME project's learning material.

The REFRAME iLearn Tool will have the following parts:

1) the CE S-R Tool
2) the CE Course
3) the CE Framework

This report is detailing the technical design and approach and aims to ensure that the REFRAME iLearn Tool structure, approach and applied tools correspond with the project target groups' needs.

3 Online presence

The iLearn Tool will be directly connected with the project's website www.reframe-project.eu

It will be hosted in the following subdomain: ilearn.reframe-project.eu

4 Graphical and Technical-related Issues of the Tool

4.1 Graphic Design

The iLearn Tool will be designed according to the following features:

- ✦ It will be of high **quality** and professional design, in order to motivate the user and support him/her when accessing either the online environment, e.g. creation of orientation guides, processing scale, animation etc.

- ✦ It will comply with the **Erasmus+ visualisation standards**: https://wayback.archive-it.org/12090/20210122003258mp_/https://eacea.ec.europa.eu/about-eacea/visual-identity-and-logos-eacea/erasmus-visual-identity-and-logos_en

- ✦ **Navigation**: It is particularly important to create a navigational system that is available on every page, maintains the overall feel of the site while making the user and easy to locate data and information.

- ✦ **Colours**: The design will be built around a coordinated colour palette, which will contain the main colours of the project visual identity, plus 2 more colours maximum, where necessary. This way, the tool will have the professional yet simple look, while maintaining the cohesiveness of the website.

- ✦ **Fonts**: The fonts' family, size and colour combinations maintain a professional and cohesive feel. The fonts that will be used are Open Sans or Calibri Regular.

✦ **Layout**: The design will be determined based on the content that will appear in the iLearn Tool, to ensure its usefulness and readability. Certain elements will need to be highlighted more than others.

4.2   Technical features

What a student can see, while accessing the iLearn Tool, is a simply structured but very well designed, immediate, understandable, and efficient user interface.

✦ Simple, lightweight, efficient, compatible, low-tech browser interface.

✦ Emphasis will be given on strong security throughout. Forms will all be checked, data will be validated, cookies will be encrypted etc.

✦ Modules and plug-ins will be the backbone of the iLearn Tool.

✦ Learners will be able to access the iLearn Tool using all common browser, including Internet Explorer, Mozilla, Firefox, and Safari for the MacOS.

✦ The iLearn Tool will have user accessibility features.

4.3   Languages

✦ The iLearn Tool will be implemented in 5 different instances, one for each EU language: English, Bulgarian, Greek, Hungarian, and Portuguese.

✦ The addition of other languages is technically guaranteed.

4.4   Access

The user/visitor must create a New Account, before accessing the REFRAME training material. By default, this is done via e-mail confirmation. A message is sent from the REFRAME iLearn Tool after completing the New Account registration form.

▪ The platform administrator has also the right to create a New Account manually.
▪ The users that have already registered to the iLearn Tool will be able to login via login page.

4.4.1   Access: Self-registration

The REFRAME iLearn Tool will be freely accessible by everyone. It will have an easy-to-use registration function, using an **email-based self-registration authentication method**, which will enable users to create their own accounts via the 'Create new account' button on the login page.

The basic registration will require Username, Password, Email address, Country.

If the users wish to update their profile, more data will be collected from them, but only after the registration and if the users add the additional information by themselves.

In case of a lost password, the user will be able to request password reset, to choose another password.

4.4.2   Guest Access

The REFRAME iLearn Tool will allow the 'Guest Access'. A Guest will be able to see the main information about the iLearn Tool training material but will not be able to study the whole training material, track the progress, participate in assessment quizzes between the training modules, or receive any grades.

4.4.3   Course enrolment

The Course will be accessible to a student once he/she enrols in a course.

4.4.4   Individual Dashboard

Learners will have a dedicated dashboard to keep track of all the functionalities: Settings of profile, Course progress, Quizzes attempted & Logout option. Also, a learner will be able to access the Course from the Dashboard Page.

4.5   Installation & Operability

✦ The REFRAME iLearn Tool will be directly connected with the project's website www.reframe-project.eu

✦ It will be hosted in the following subdomain: ilearn.reframe-project.eu

✦ The tool will be installed and hosted on an outsourced webserver in Europe.

✦ First, a beta version will be released, and after the test phase, the final version of the will be released.

✦ During Beta version and the test phase the access to the content of the iLearn Tool will be limited.

✦ Migration to other servers will be possible but with specific requirements.

✦ The iLearn Tool will be designed and programmed in a responsive way, allowing proper operation on various mobile devices and on various common web browsers.

✦ The iLearn Tool will be part of the overall project website's Google Analytics Tool. Various reports will be available for the partners with Google Analytics.

✦ PCX will design, develop, and write code following best practices for an accessible website and tool, without losing flexibility and attractiveness.

✦ PCX will work and implement the software according to EACEA rules and policies provided here: https://wayback.archive-it.org/12090/20210122003258mp_/https://eacea.ec.europa.eu/about-eacea/visual-identity-and-logos-eacea/erasmus-visual-identity-and-logos_en.

5   Structure of the iLearn Tool

The REFRAME iLearn Tool will have the following parts:

1) the CE S-R Tool
2) the CE Course
3) the CE Framework

All three parts will be visible in the front page of the iLearn Tool.

A user may access individually any of the parts. However, to access a custom Action Plan (CE Framework) and a custom Learning Path (CE Course), the user should first access the S-R Tool.

An introduction will be available for the above-mentioned, so the user knows and understands the process from the very beginning.

5.1   Part 1: CE S-R Tool

For more information regarding the S-R Tool, please see the **Circular Economy Self-Rate Tool (CE S-R Tool) Technical Specification Report document**. (ANNEX 1)

5.2   Part 2: CE Course

The Course will contain the following:

▪ Main theory
▪ Quiz assessments
▪ Further material to study (files, videos, etc.)

5.2.1   Structure of the welcoming page
Before a user gets enrolled to the course, he/she will see the following information:

▪ Course full title
▪ Category it belongs to
▪ Recommended study hours
▪ Course's learning topics: what the user will learn
▪ Topics/sections of the course
▪ Sub-topics/Sub-sections of the course
▪ Available quizzes
▪ Requirements for studying the course

- The ENROL button: a user should click on this to become a student of the course and have access to the training material

<u>After a user gets enrolled to the course</u>, he/she will see the following information:

- Course full title
- Category it belongs to
- Recommended study hours
- Progress of the course
- Topics/sections of the course
- Sub-topics/Sub-sections of the course
- Available quizzes
- Requirements for studying the course
- The START COURSE button, to 'enter' the course and start studying.

5.2.2   Structure of the course page
The course will have an easy navigation through the various activities and resources of the course.

1. Table of contents: On the <u>left side</u> there will be the contents of the course, i.e. Topics/Sections and Sub-topics/Sub-sections
   - It will be possible a user to hide the contents' panel.
   - Clicking on a Topic/Section will show or hide the Sub-topics/Sub-sections.

2. Course content: On the center and right of the page there will be the main training material (text-theory) or the content of a quiz – depending on the selection from the table of the contents (left panel).
   - Next and Previous buttons will appear at the bottom of the page/
   - A link that will redirect users to the course's home page will be at the top of the page.
   - A 'Complete' button will be available, in order a user clicks on it when he/she finishes the study of each Sub-topic/Sub-section.

3. When a user clicks on the 'Complete' button, the corresponding Sub-topic/Sub-section on the left panel (Table of contents) will be checked with a green check mark.

5.3   Quiz

The quizzes will be among the other learning units and will help the users to test the knowledge thay have acquired until this point of the units. When a user completes and submits a quiz attempt, the attempt will be listed as 'Previous attempts' with the following information:

- Number of attempts
- Date and time of submission

- Questions answered
- Maximum points of the quiz
- Earned points & percentage
- Points needed to pass & percentage
- Result: Pass/ Fail
- Gradebook

5.4   Part 3: CE Framework

Proposal submitted: Once a final interested user runs the REFRAME Self-Rate Tool (IO1), the results will give him/her a proposed learning path using the CE Course (IO2) and a link with the proposed steps to implement a CE Framework in his/her business environment. This framework will give the chance to this user to implement the framework towards Circular Economy transition. The CE Framework will include a set of methodology concepts, tools and measurement instruments that guide the execution of CE strategy adoption.

The CE Framework will be included in three sections:

✦ Section 1: Analysis of the following factors as per REFRAME target groups: Relevant stakeholders (Customers, Suppliers, Partners, Sub-Contractors etc.), Political-Ecological-Factors-Factors-Legal & Economic Factors. This section will be presented as documents.

✦ Section 2: Risk and Opportunities Management Process. This section will be presented as a document.

✦ Section 3: A Circular Economy Transition Strategy. This section will be presented as documents, which will be used for implementing the results of the S-R Tool. For more information regarding the S-R Tool, please see the Circular Economy Self-Rate Tool (CE S-R Tool) Technical Specification Report document. (ANNEX 1)

6   Development Process

6.1   Phase 1: Strategy & Concept Development

Great design starts by understanding the project's objectives and target-groups. PCX will define any design problems and together with the partners will develop strategies for solving those problems effectively and memorably.

At this phase PCX will examine the details, ensuring that every element works to aid the communication objectives of the project. The architecture and the site map of the iLearn Tool are completed. The CSS (Cascading Style Sheets) are flushed out and the iLearn Tool is part of the project's website.

- Make the core installation of the website Learning Management System for the iLearn Tool.
- Build the structure of the platform (pages, images, links etc.).
- Install & configure all the necessary plugins and make any code changes where necessary.
- Configure the registration system to be GDPR compliant.

6.2   Phase 2: Content insertion

At this phase PCX will upload the training material prepared by all partners in English. After this, PCX will create a new website skeleton for the national versions, to be ready to receive the translated texts. After that, the insertion of the training material in national languages will be implemented.

Final step for this phase is the initial check and feedback from all the partners to PCX, after the internal tests.

6.3   Phase 3: External tests and finalisation

At this phase, all the partners will conduct external tests, during which the final users will give feedback to the consortium regarding the iLearn Tool design and the course content.

For the convenience of all partners PCX will create an online feedback form, which can be used to gather all the feedback submissions by all the users of all the partners.

Next, PCX will refine the design and content, check, doublecheck, proof again, and prepare the design for the final production environment.

- Testing of the iLearn Tool for selected browsers and mobile devices (iPhone Android, iPad etc.)
- Accessibility tests
- SEO set-up
- Fixing bugs
- Sign-off the iLearn Tool development

7   ANNEX 1: Circular Economy Self-Rate Tool (CE S-R Tool) Technical Specification Report

REFRAME_SR_Tool_Technical_Specification_Report_v1.0.docx Document

12 pages