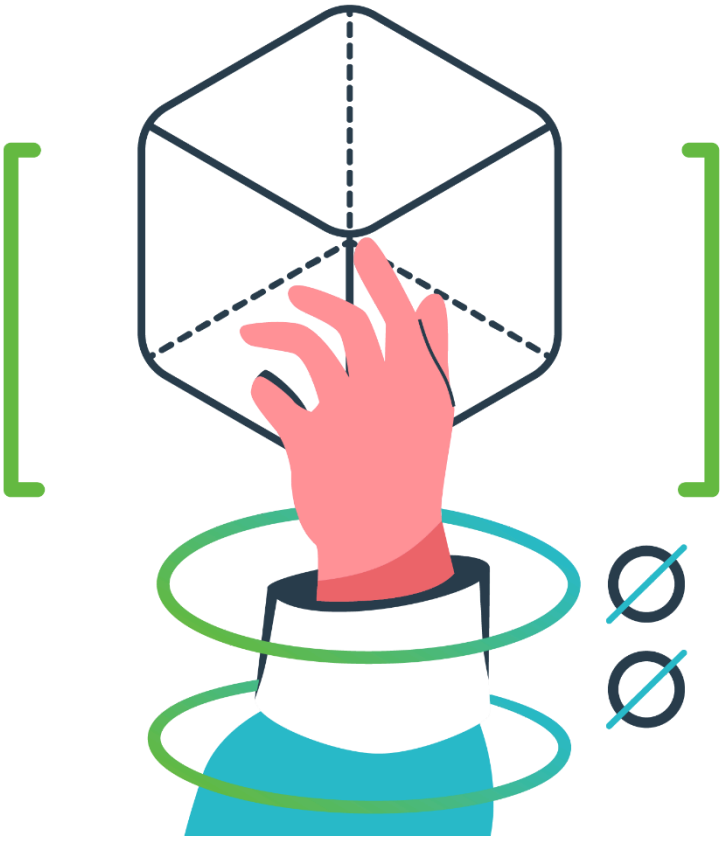
Instructional Guide for Users

ECOcircular-AI Platform



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1. Introduction

1.1. Introduction to the Guide

This guide is intended to support both trainers and trainees in effectively using the ECOcircular AI platform. It provides clear instructions, practical guidance, and an overview of the platform's key features and functionalities. The document outlines the platform's structure, navigational tips, and practical use cases to ensure a smooth and efficient user experience.

1.2. Introduction to the Project

ECOcircular AI aims to promote sustainable, ethical and entrepreneurial business practices among continuing education trainees in Europe. It uses an interactive learning process that employs an artificial intelligence (AI) chatbot assistant to equip VET-C trainees in Finance and Management with the competencies needed to apply data-driven knowledge in real-world scenarios and acquire the awareness and skills needed to apply environmental sustainability and social responsibility in their workplace.

1.3. Introduction to the Platform

The ECOcircular AI platform is a gateway to learning about the principles of circular economy through interactive educational materials, supported by an AI chatbot assistant, a comprehensive trainers' pack, a detailed users' guide, and a discussion forum. These resources are freely available and accessible through this platform.

The main target audiences of the platform are VET trainers and trainees, in fields such as finance, management, entrepreneurship, and sustainability, but can also apply to the wider educational sector. The goal is to develop and advance trainees' skills in the green economy, and more specifically their knowledge on the circular economy, sustainable production, and ecological footprint. This is achieved by providing trainers with the materials and resources to incorporate these lessons into their curricula, in a fun and engaging way, while accounting for different learning styles.

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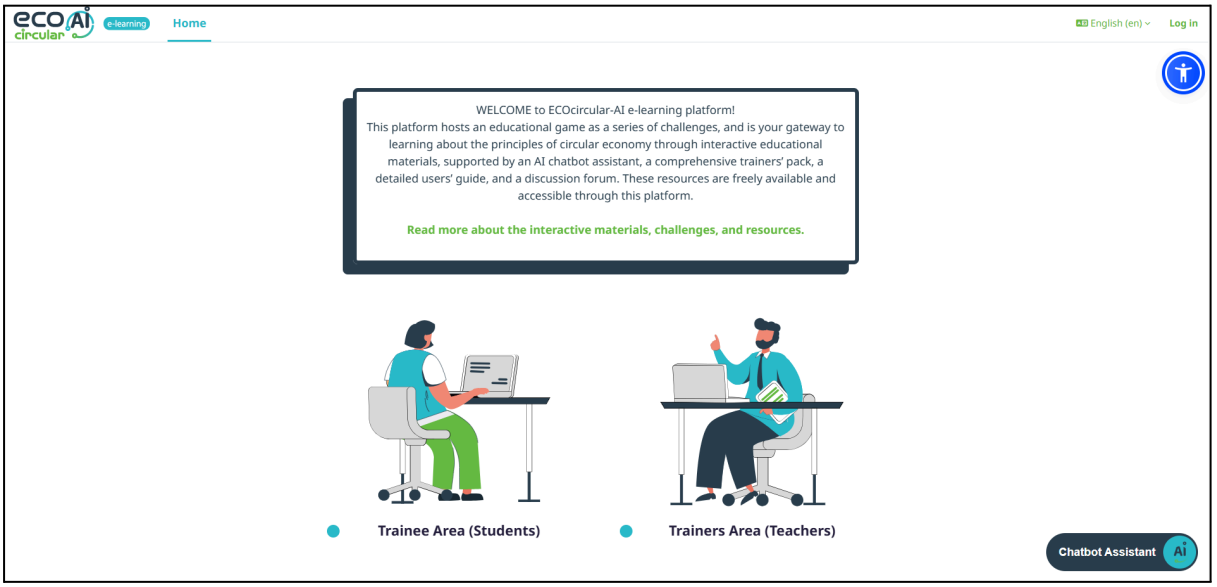
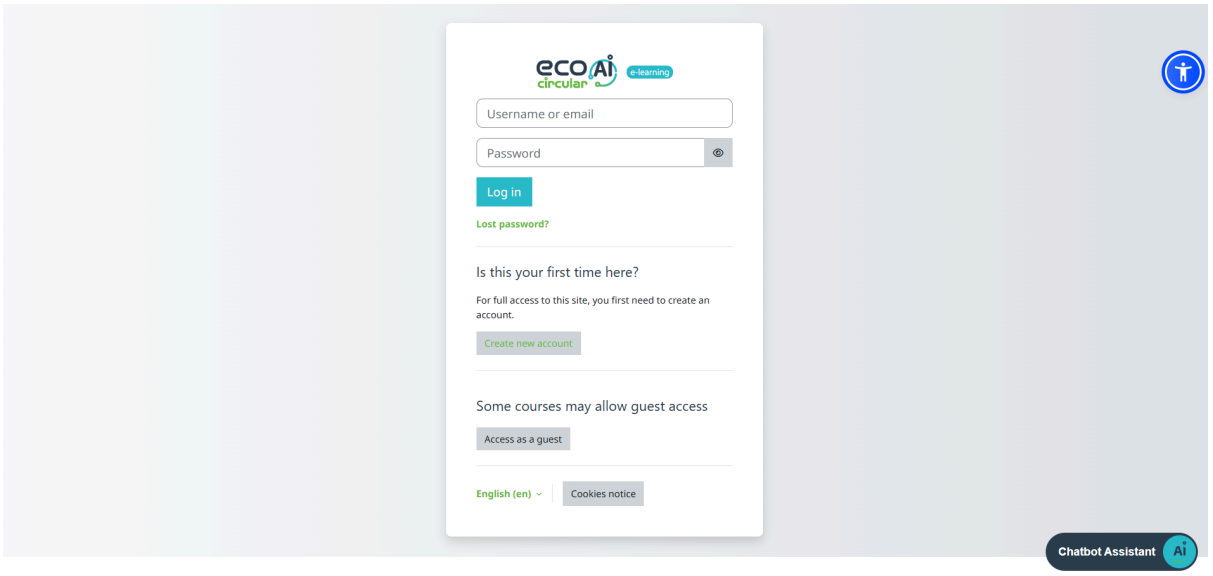
2. Practicalities

In order to be able to utilize and benefit from all the functionalities of the platform, you need to register as a user. You can do this by clicking on “Log In” at the top right corner.



Then click on “Create new account”.



Finally, fill out your information in the form. You will need to choose a username and a password for your account. Once you have filled out all the required fields, you will also need to select your role for this platform, either a trainee or a trainer. Finally, click on “Create my new account” and then you will receive an email with a confirmation link which you need to click on to confirm your account. Now you should be all set up with your ECOcircular account.

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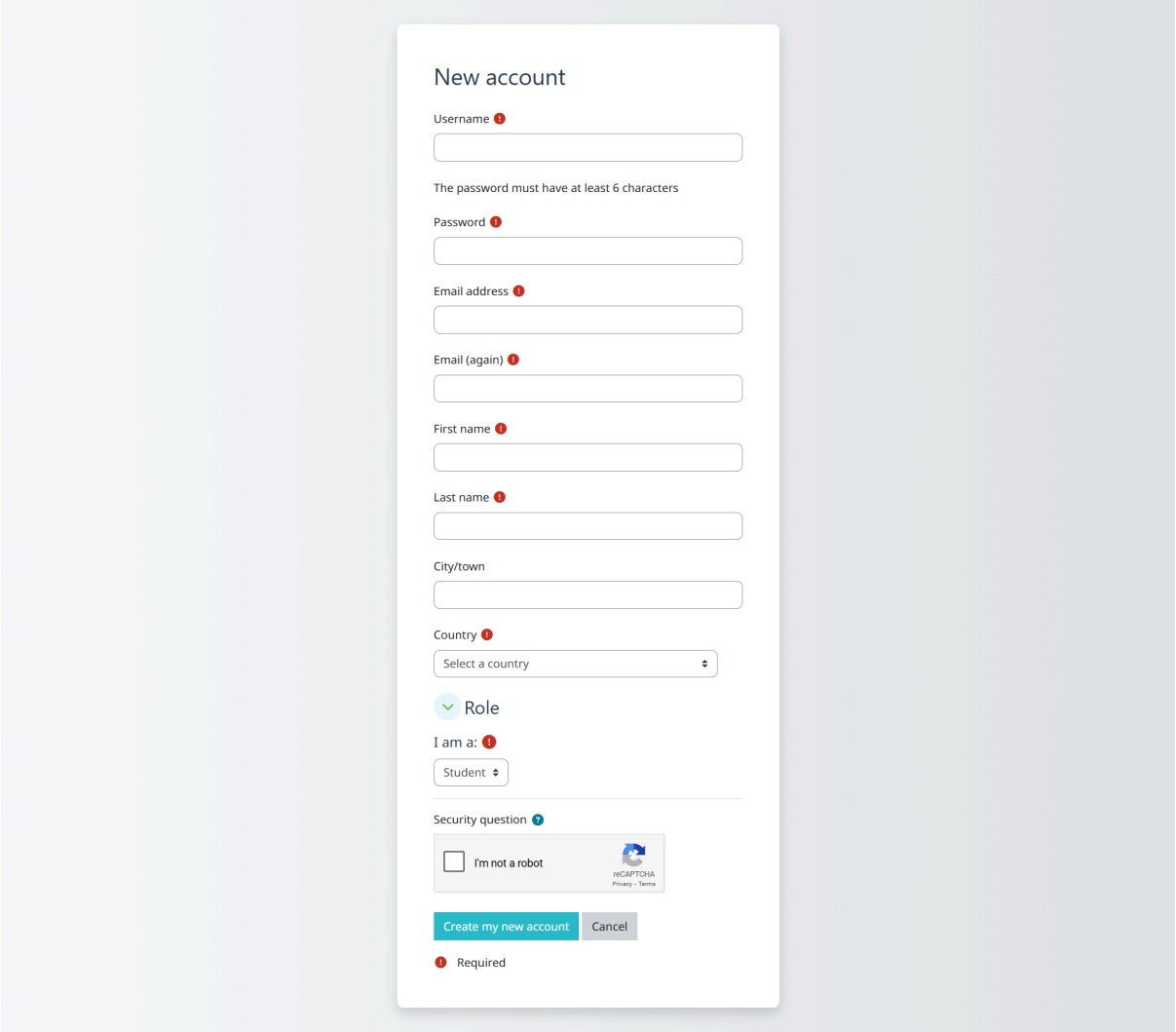

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Chatbot Assistant

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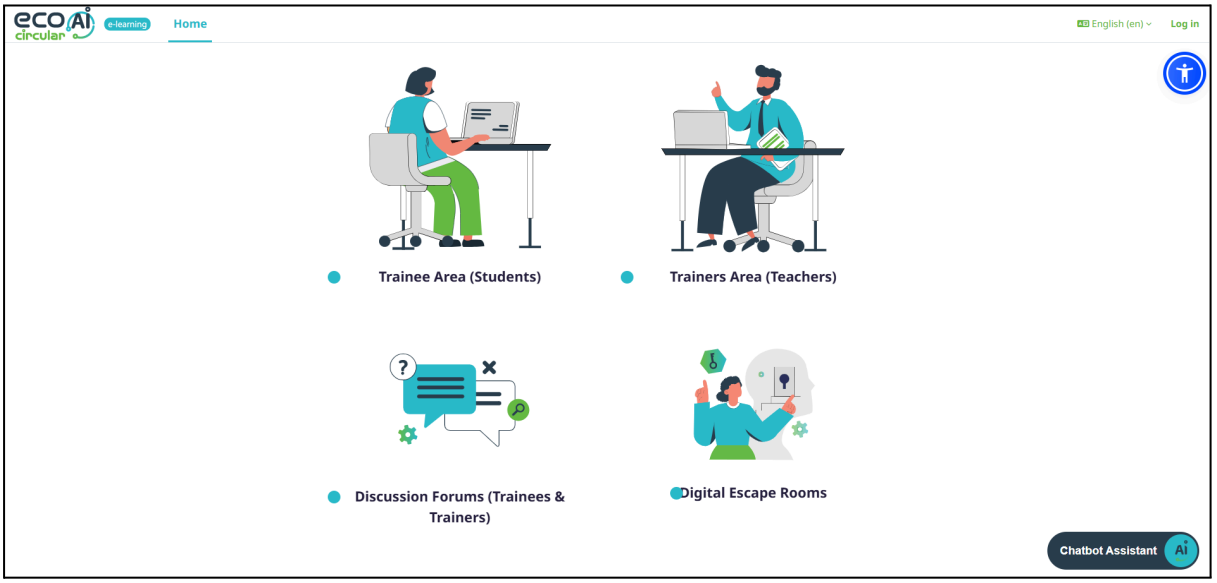
3. Platform Sections and Functionalities

The ECOcircular platform has 5 main sections or functionalities.



3.1. Trainers

The Trainers Area is where you can find the materials and guides as a trainer, to help you create and organize your lessons. Additionally, you can see all the materials and exercises that the trainees can see.

When you click on the Trainers Area, you will be presented with the option to select one of the four challenges, or topics of the e-Learning platform. Here is an overview of the challenges:

- **Challenge 1: The Essentials of Circular Economy**
  Trainees are introduced to the basic concepts of reducing waste, using resources efficiently, and adopting sustainable business models. This challenge encourages critical thinking about the economic decisions' environmental and societal impacts. The focus of this challenge is on the conceptual understanding of circular economy and identifying general strategies for sustainability.
- **Challenge 2: Building a Greener Future in Electronics Production**
  Using a smartphone as a case study, trainees analyze the life cycle impacts of products and propose design innovations to minimize environmental footprints, fostering a discussion on responsibility in the tech industry. The focus of this challenge is on sustainable design, product lifecycle, and innovation in manufacturing.
- **Challenge 3: Transforming Denim: Toward 100% Sustainable and Circular Production**
  This challenge dives into the fashion industry, with a focus on denim production, exploring strategies to decrease water use, increase recycled materials, and promote clothing reuse. The focus of this challenge is on sustainable textiles, circular production models, and waste reduction.

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- **Challenge 4: Reducing our ecological footprint through responsibility and consumer engagement**
  Trainees develop sustainable practices for the restaurant industry, targeting the elimination of single-use plastics, optimizing operations, and engaging consumers in eco-friendly initiatives. The focus of this challenge is on ecological footprint, consumer engagement and sustainability in services.

By entering one of the challenges, you will be able to see an overview of the challenge, along with a list consisting of the Lesson Plan, Learning Materials, Assignments, and Self-Reflection Exercise.

Lesson Plan

The Lesson Plan is where all the information about structuring your course and incorporating the components of the challenge is located. The same information is provided as a PDF document you can download, as well as a digital flipbook version.

The Lesson Plan includes instructions and information about each challenge. It lets you know what kind of equipment might be needed, what the goal is, a description of the topic of the challenge, as well as the more educationally relevant information, such as the learning objectives and expected outcomes. Furthermore, it includes instructions about the activities to be carried out with the trainees for each challenge, how to set them up, and what is needed for each activity.

This section is only available in the Trainers Area.

Learning Material

This is where you can find the materials mentioned in the lesson plan activities. These materials are diverse, from videos to articles, documents, and templates. The exact same material is presented to the trainees in the Trainees Area.

Assignments

The Assignments section includes the assignments for each challenge in the form of a PDF document and interactive flipbook. When applicable, there is also a project template document in both forms. The documents contain information and guidance about carrying out the assignments so that the trainees can practice what they are learning.

Self-Reflection Exercise

Finally, there is the Self-Reflection Exercise which again can be found in the form of a PDF document and a digital flipbook. The Self-Reflection Exercise consists of multiple choice questions which on the Trainees Area will be presented in the form of an online quiz. In the Trainers Area, these documents include all the questions with their possible answers, indicating the correct answer, as well as including feedback for each wrong answer so that you have the ability to correct the trainees and provide feedback. This same feedback is also presented to the trainees depending on their answers in the online quiz.

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3.1.1. Pedagogical Guidelines for Trainers

This section is designed for trainers using the ECOcircular-AI platform, especially those who may not have prior experience in sustainability, circular economy, or digital tools. The goal is to provide confidence, practical strategies, and pedagogical guidance to help trainers create an engaging and meaningful learning environment.

3.1.1.1. Understanding Your Role as a Trainer

- Facilitator: Guide the learning process rather than just transmitting knowledge.
- Motivator: Foster participation and enthusiasm for sustainability topics.
- Critical Mentor: Help learners reflect on their choices and understand social and environmental impacts.

3.1.1.2. Recommended Active Learning Methodologies

- Project-Based Learning (PBL): Frame challenges as projects that culminate in realistic proposals.
- Collaborative Learning: Organize learners into small groups to analyze issues and co-create solutions.
- Case Studies: Connect challenges with real-world events, news, or local experiences.
- Problem-Based Learning (PBL): Encourage learners to explore open-ended problems and develop multiple solutions.

3.1.1.3. Assessment Strategies

- Formative Assessment: Use reflection quizzes, discussions, and short activities to monitor progress.
- Self- and Peer-Assessment: Encourage learners to evaluate their own work and that of their peers.
- Final Projects: Ask learners to design applicable proposals (e.g., reducing waste in their school or redesigning a local product).

3.1.1.4. Adapting to Different Learning Styles

- Visual Learners: Use videos, infographics, and diagrams.
- Kinesthetic Learners: Design hands-on activities, workshops, or prototypes.
- Auditory Learners: Facilitate oral explanations, debates, and podcasts.
- Reflective Learners: Suggest journals, reflection diaries, or summary writing.

3.1.1.5. Practical Classroom Dynamics and Resources

- Structured Debates: Divide learners into groups with contrasting perspectives (e.g., “business vs. environment”).
- Role Play: Simulate different roles (customers, entrepreneurs, policymakers) to highlight diverse viewpoints.
- Digital Escape Rooms: Use them as review activities and group-building exercises.

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- AI Chatbot Assistant: Encourage learners to ask questions, research concepts, and compare responses.

3.1.1.6. Final Tips for Trainers

- Start with just one challenge and expand gradually.
- Use relatable examples that connect sustainability with learners' daily lives.

3.2. Trainees

The Trainees Area is where you can find the materials and exercises as a trainee. The learning materials include a variety of different types of resources such as articles and videos, with assignments to apply the knowledge in a more practical way, and finally a self-reflection exercise to test your knowledge.

When you click on the Trainees Area, you will be presented with the option to select one of the four challenges, or topics of the e-Learning platform. Here is an overview of the challenges:

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Learning Material

This is where you can find the materials to be used for your learning. These materials are diverse, from videos to articles, documents, and templates.

Assignments

The Assignments section includes the assignments for each challenge in the form of a PDF document and interactive flipbook. When applicable, there is also a project template document in both forms. The documents contain information and guidance about carrying out the assignments so that you can practice what you are learning.

Self-Reflection Exercise

Finally, there is the Self-Reflection Exercise which you can complete in the form of an online quiz consisting of multiple-choice questions. When you complete the quiz you will get a score and feedback for each question, depending on your answer. You can take the quiz as many times as you'd like.

3.3. Discussion Forum

The discussion forum functions as a digital space where you can post questions, share information, and engage in conversations about specific topics. When you click on the Discussions tab, you will then be able to select the language you want to access the forum with. Once you enter the forum, you will be able to see any existing topics and discussions, reply to them by clicking on "Discuss this topic", and create a new discussion topic by clicking on the "Add discussion topic" button.

3.4. Digital Escape Rooms

The ECOcircular-AI Digital Escape Rooms serve as a fun and interactive way for trainees to test their knowledge and reinforce their learning. There are 4 different Digital Escape Rooms, each one consisting of 4 or 5 questions. These Digital Escape Rooms are designed as Google Forms, so each link directs you to the appropriate room outside of the ECOcircular platform. Each room begins with instructions on how to use it, and then a storyline and a scenario to initiate the trainee into the plot. Each question has a very specific answer and the trainee needs to figure out the correct answer to the question before they can move on to the next one. In case they enter a wrong answer, the system will give them a helpful hint as feedback for them to try again.

3.5. AI Chatbot Assistant

The AI chatbot assistant can help you get answers to your questions that are related to the topics of the platform. You can find the assistant at the bottom right corner of the platform. Once you click on it, a chat window will open with a text box. You can use this text box to ask the chatbot your questions. The chatbot will be able to answer questions or prompts that are related with the materials in the platform and can be a helpful assistant to summarize knowledge or provide you with information that may be scattered across the platform. Tip: Try not to change the language you use when using the chatbot, for better results.

Some examples of helpful questions or prompts to use:

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Navigating the ECOcircular AI Platform

- "What topics are covered in the ECOcircular AI platform?"

Understanding Circular Economy Concepts

- "What is a circular economy, and how does it work?"
- "Explain the difference between a linear and a circular economy."
- "How does sustainable production contribute to a greener planet?"
- "What are some real-world examples of companies using circular economy principles?"
- "How can individuals contribute to a circular economy?"

Applying Sustainable Lifecycle Principles

- "Can you explain the different stages of a product's sustainable lifecycle?"
- "What are some sustainable materials used in production?"
- "How can businesses design products for reuse and recycling?"
- "Give me an example of a product that follows a circular design."
- "How does waste management fit into the circular economy?"

Sustainable Production & Innovation

- "How do companies reduce waste and emissions in manufacturing?"
- "What role does renewable energy play in sustainable production?"
- "Can you list some sustainable business models?"
- "What policies or laws support sustainable production in the EU?"

Engaging with ECOcircular AI Learning Tools

- "What are the key takeaways from Challenge 4?"
- "Suggest a hands-on activity to reinforce learning from the platform."

Real-World Impact & Action Steps

- "How can I apply what I learned from ECOcircular AI in daily life?"
- "What are some small changes I can make to reduce my environmental impact?"
- "How can educators incorporate circular economy topics into their lessons?"

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