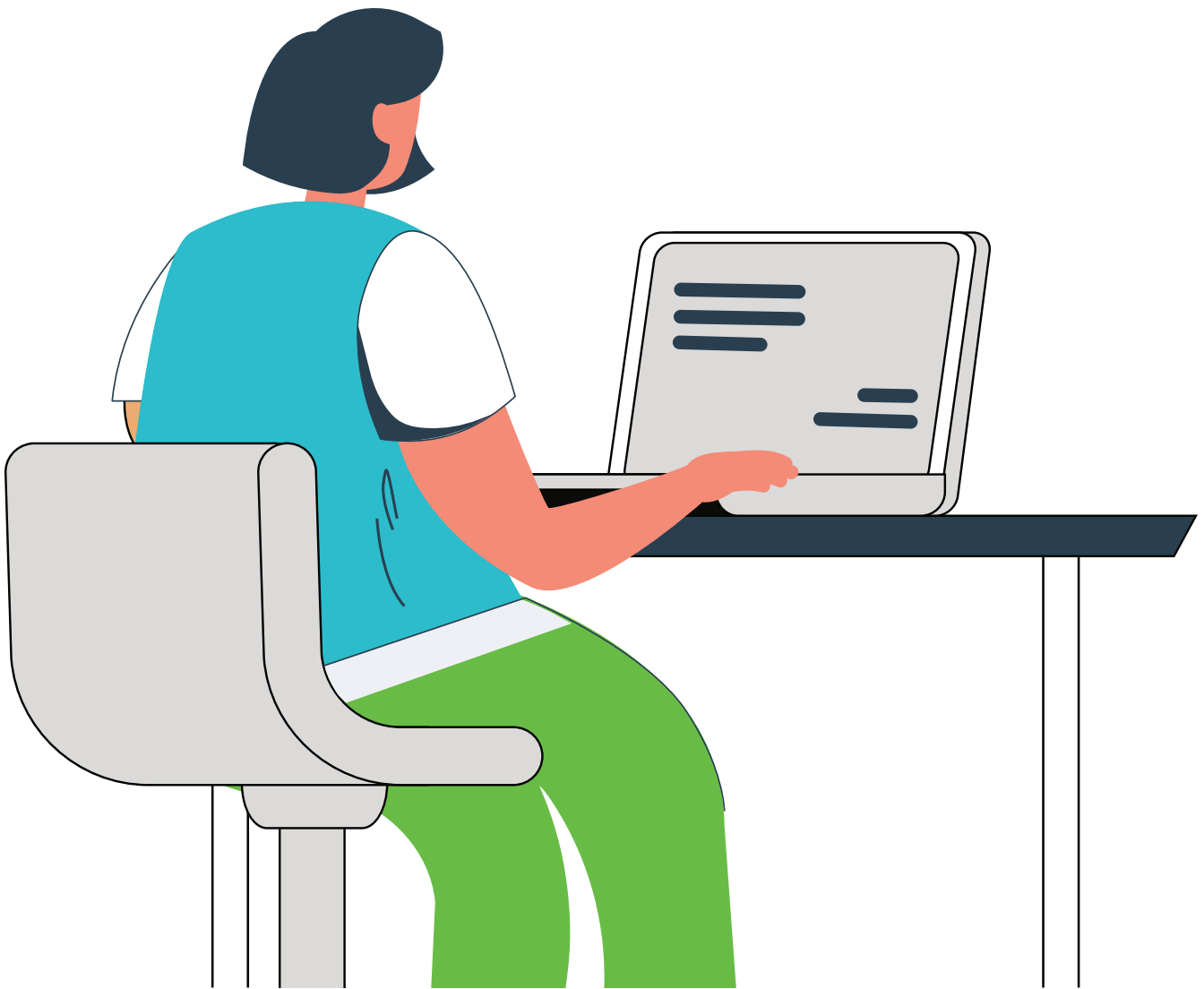


# eco Ai circular



## Lesson Plan



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# Transforming denim: toward 100% sustainable and circular production

## Lesson Plan

Equipment	Target Group	Goal
Projector (optional), computer, internet connection.	Students in vocational training programs in finance and administration under the guidance of their instructors.	The goal of the challenge is to achieve a new standard of sustainability for EcoDenim Co. by minimizing water usage and creating a closed-loop lifecycle in eco-friendly jeans production.

## Description

Considering the three principles of a sustainable economy, EcoDenim Co. aims to lead denim production towards full circularity and improved waste management

This challenge invites students to minimize environmental impact by reducing waste, incorporating recycled materials, and promoting garment recycling.


Learning Objectives	Expected outcomes	Competences
<ol style="list-style-type: none"> <li>Understand the environmental impact of denim and EcoDenim Co.'s positioning in sustainability.</li> <li>Analyze the ecological impact of cotton and the importance of organic cotton.</li> <li>Develop a plan to reduce waste and optimize the sustainable lifecycle of denim.</li> <li>Align EcoDenim Co.'s products with new European sustainability regulations.</li> <li>Create a circular business model for EcoDenim Co. that maximizes sustainability.</li> </ol>	<ol style="list-style-type: none"> <li>Identify the key environmental impacts and solutions for denim production.</li> <li>Develop a comprehensive waste reduction and recycling strategy.</li> <li>Design a Circular Business Model for Denim Production.</li> </ol>	<p>C1-Analyse and control the costs associated with the use of natural resources and materials.</p> <p>C2.2.Understand regulations and ethical standards related to sustainable resource management..</p>

<b>Classroom Setting</b>	Students can work in pairs, groups, or individually.
<b>Prior Knowledge Required</b>	Challenge 1 completed.



## Learning Activities Overview

### No.1 / Learning and discussing the ecological impact of cotton farming and the benefits of using organic cotton in sustainable fashion

Objective	Duration 	Training Method	Equipment Needed
<p>Analyze the ecological impact of cotton farming, with a focus on water consumption and soil pollution.</p> <p>Identify the benefits of organic cotton in reducing water usage and enhancing EcoDenim Co.'s overall sustainability.</p>	7 hours	Exercise - Group or Individually	Computer, Internet connection, Projector (optional)

### Learning Resources or/and Assignments

After reading the documents listed in Materials List for this activity, students can resolve the Assignment 1. The instructor can choose the most important questions. It is not necessary discuss all of them.

Please note that the latest material on regulation in this sector is optional, but it may also be of interest

<b>Mandatory / Optional</b>	Mandatory
<b>Use of EcoAI tool</b>	Consider using the EcoAi Assistant to add supplementary comments to the provided answers and also to deepen the understanding of e-waste and sustainable materials in the denim industry.



### No.2 / Developing a strategic plan to reduce waste and enhance the sustainable lifecycle of denim production

Objective	Duration 	Training Method	Equipment Needed
<p>Develop a strategic plan to reduce textile waste and water usage at each stage of denim production.</p> <p>Optimize the sustainable lifecycle of jeans by implementing practices that minimize water consumption and improve resource efficiency.</p>	4 hours	Exercise - Group or Individually	Computer or paper

#### Learning Resources or/and Assignments

After using the app and playing with it, students can reflect on the impact of using waste to produce a single denim and become aware of the impact of making a strategic denim life cycle plan. The trainer can use the questions in Assignment 2 for discussion.

<b>Mandatory / Optional</b>	Mandatory
<b>Use of EcoAI tool</b>	Consider using the EcoAi Assistant to add supplementary comments to the provided answers.

### No.3 / Learning and applying new European sustainability regulations to align EcoDenim Co.'s products with advanced eco-design standards

Objective	Duration	Training Method	Equipment Needed
Align EcoDenim Co.'s products with new European sustainability regulations to ensure compliance and reduce environmental impact, especially regarding water waste.	8 hours	Exercise - Group or Individually	Computer, Internet connection




Implement eco-design practices that minimize water consumption and promote circularity in product development.			
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### Learning Resources or/and Assignments

After watching the videos listed Materials listed for this activity, students can solve Assignment 3. The trainer should note that the student should refresh their memory of the description of the information from Activity 1. The Assignment includes a system to assess the level of sustainability. The scoring guide is included within the assignment.

<b>Mandatory / Optional</b>	Mandatory
<b>Use of EcoAI tool</b>	Consider using the EcoAi Assistant to add supplementary comments to the provided answers.

## No.4 / Designing a circular business model that maximizes sustainability for EcoDenim Co.

Objective	Duration	Training Method	Equipment Needed
Develop and present a circular business model that maximizes EcoDenim Co.'s sustainability, focusing on reducing water waste.	4 hours 	Exercise - Group or Individually	Computer, Internet connection, Projector (optional)

### Learning Resources or/and Assignments

Students are required to develop and present a Sustainable Business Canvas that integrates the principles, helping EcoDenim Co. adopt a fully circular business model. We suggest to use the template (Project Template) provided in the Material List. Markers, post-its, or digital collaboration tools (for remote sessions) The trainers briefly review the journey participants have taken through the challenge, highlighting key insights from assignments on sustainability in the denim industry, resource management, and the principles of circular economy (optional).

<b>Mandatory / Optional</b>	Mandatory
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<b>Use of EcoAI tool</b>	<p>Utilize the EcoAI Assistant to provide some specific question to help to student to discuss about their canvas for example: “What strategies did you include in the Sustainable Canvas to reduce water consumption at different stages of production, and why are they important?”</p> <p>This question encourages students to identify and evaluate the most effective strategies for reducing water usage, highlighting their importance in the business model.</p> <p><i>“What challenges might EcoDenim Co. face in implementing low-water consumption technologies, and how could they overcome them?”</i></p> <p>This question prompts students to reflect on practical obstacles to adopting water-saving technologies and think of innovative solutions.</p> <p><i>“How do you think reducing water consumption might influence customer perceptions of the brand and their engagement in sustainable practices?”</i></p> <p>This question connects water conservation efforts to brand image and customer awareness, encouraging reflection on the importance of sustainability.</p>
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**No.5 / Self-assessment**

Objective	Duration	Training Method	Equipment Needed
Evaluation of the learning process	15 mins	Individually	Computer, Internet connection
<b>Mandatory / Optional</b>	Mandatory		

**TOTAL DURATION**



**23 hours + 15 mins**



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