

MODISTO II

Student's Guide

Didactic Resources

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ModisTo II

STUDENT'S GUIDE
MODISTO II

Dear student:

With this document we present an instruction guide where you can check all the information regarding the aspects of your interest related to the didactic resources of MODISTO II. The didactic resources are products of this project funded by the Erasmus+ Programme of the European Commission under the agreement number 2022-1-ES01-KA220-VET-000088313.

MODISTO II didactic resources aim to facilitate the acquisition of competences related to eco-design for processes in the fashion and textile sector.

We recommend that you download this document and read it carefully to understand the characteristics of the training that you can undergo now.

The list of topics that you can see in this document is the following:

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1. MODISTO II Objectives

The main objective of MODISTO II project is to develop an Open Educational Resource (OER) by extending the topics of the previous e-learning course produced with the MODISTO project to the additional topic of eco-design in processes, from production to sales, in the textile and fashion sector. In addition, the OER includes 4 practical cases in virtual mode addressing key competences in eco-design in processes to be practiced by VET students through interactive elements.

Hence, the training program devised by the partnership consists of an e-learning course of four modules in self-assessed modality, and the practice of behavioural competences based on real cases, including interactivity. The training program can be used through standalone resources, but also accessing these resources through a smart virtual learning environment.

MODISTO II has involved key stakeholders in the conception, production and testing of the implemented didactic resources, thus ensuring the sustainability and use of them in the medium-term as well.

2. Training Requirements

2.1. Profile of students to whom the training action is addressed, with indication of the training and professional requirements

To access MODISTO II training programme, no specific requirements are needed; any student interested in developing their eco-design skills can take part in it. The course fulfils criteria of accessibility by being available in four languages, and is complemented by multimedia resources. The optimal use of the resources is expected with students in VET cycles of fashion design and production and in different technical subjects of textile industrial processes.

2.2. Technical requirements (hardware and software) needed to follow the training action in e-learning modality

To carry out this training course through the chosen platform, ERUDIRE you must have a PC or similar computer equipment in terms of functionality, with a Windows, Android, Linux or Mac operating system, internet connection and a browser such as Microsoft Edge, Mozilla Firefox or Google Chrome.

Speakers are required for the audio of the multimedia elements, as well as the installation of typical plugins in the Adobe Acrobat Reader-type browser for reviewing documents in “.pdf” format.

Before accessing the course for the first time, you should register in the platform and log in. Registration is for free and the platform provides specific indications on how to proceed.

3. General organisation of the training action

The course is developed in e-learning modality, hence, the modules have been programmed on a Moodle-compliant platform.

The training you will receive is organized according to the following structure:

4 Training Modules that develop the content of the training action.

- Each module consists generally of three didactic units (see course syllabus below). Some didactic units can include several related topics.

- All modules are provided with a self-evaluation questionnaire of 10 questions to enable the student to assess the acquisition of the intended competences.
- Students must complete the evaluations offered in each module to verify that the competences have been acquired.

The entire training process is self-directed, each student can progress at the pace they wish and without a pre-established schedule.

3.1. Contents

The contents of this training are as follows:

Training Module	Didactic Units
<i>Module 1: SUSTAINABILITY AND ETHICS IN ECO-DESIGN PROCESSES</i>	<p><i>It includes 3 didactic units:</i></p> <ul style="list-style-type: none"> ○ <i>Didactic Unit 1: Natural dyeing in fashion design processes</i> ○ <i>Didactic Unit 2: Fashion from Destructive to Disruptive</i> ○ <i>Didactic Unit 3: An ethical approach to design</i>
<i>Module 2: REDUCTION OF ENERGY AND WATER CONSUMPTION IN CLOTHING PRODUCTION</i>	<p><i>It includes 3 didactic units:</i></p> <ul style="list-style-type: none"> ○ <i>Didactic Unit 1: Water consumption in textile production - rationalization measures</i> ○ <i>Didactic Unit 2: Energy consumption in textile production - rationalization measures</i> ○ <i>Didactic Unit 3: Cross-Factors</i>
<i>Module 3: MINIMIZING WASTE PRODUCTION IN CLOTHING AND FASHION PROCESSES</i>	<p><i>It includes 3 didactic units:</i></p> <ul style="list-style-type: none"> ○ <i>Didactic Unit 1: Is there a zero waste in a Fashion Design?</i> ○ <i>Didactic Unit 2: Prolongating the lifespan of textile products</i> ○ <i>Didactic Unit 3: New business models in fashion industry</i>
<i>Module 4. CYCLABILITY OF PRODUCTS IN THE FASHION INDUSTRY</i>	<p><i>It includes 3 didactic units:</i></p> <ul style="list-style-type: none"> ○ <i>Didactic Unit 1: Upcycling concept and reusing process for textile materials</i> ○ <i>Didactic Unit 2: Recycling concept and recycling process for textile materials</i> ○ <i>Didactic Unit 3: Circular economy implemented in the textile sector. Fabric reusing production systems</i>

4. Operation of the Training Action

Access the training modules proceeds from the main page of the platform <https://erudire.it/>. To choose the navigation language, all you need to do is select it from the menu bar. You must enter the username and password provided to access the training environment in the web. If you do not have access credentials, you need to register, by clicking on «create an account» on the homepage of the platform. After you have clicked on «create an account» you need to follow the registration procedure available.

After having logged in with the credentials you have or those you have created, you need to click on the «Erasmus+ 2021-2027 – Part 2» course category of the «Categories» tab in the homepage of the platform.

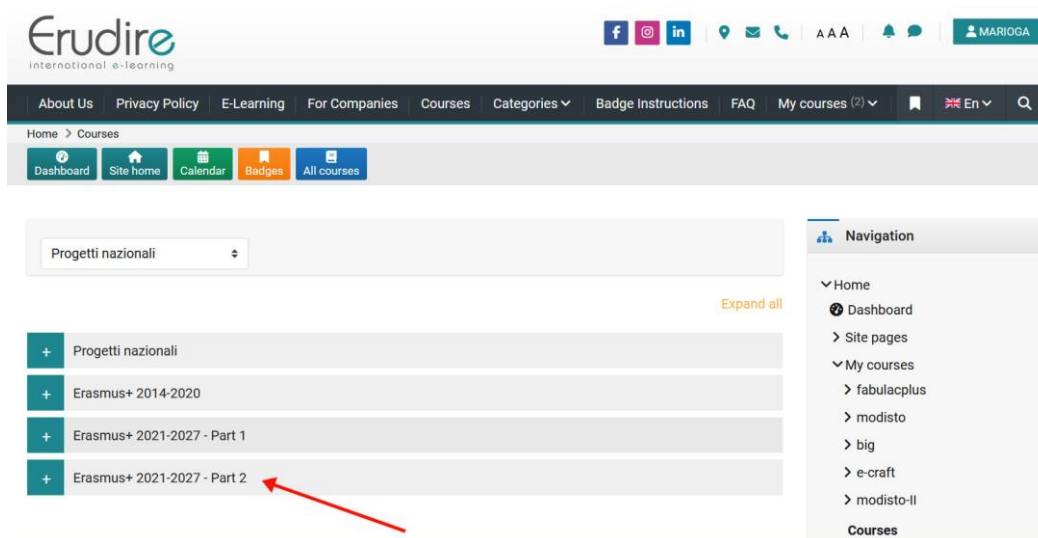


Fig 1. Access to erudire platform.

Then, among the courses available there, you should choose «MODISTO II».



MODISTO II

MODISTO II is the second leg of MODISTO project e-learning course, implemented between 2019 and 2021.

The main aims of MODISTO II e-learning course are:

- to support VET teachers and students to acquire knowledge on **eco-design for processes in the Fashion and Textile industry**
- To enable the students to practice **key competences** through **three practical cases** on eco-design processes in the Fashion and Textile industry.

The innovative aspects of MODISTO II e-learning course are the topics, the pedagogical approach and the format. The pedagogical approach includes the use and evaluation of practical competences based on the illustrative real cases encapsulated in a didactical learning environment.

The course is available in Spanish, Portuguese, Czech, Italian and English.

Enrolled students: 11 and you

ENTER THIS COURSE

Fig 2. Detail of the specific MODISTO II e-learning course in erudire platform.

To access the learning objects, you have to choose the group first. To do this, you have to click on the sentence "Choose the group" and flag the right box.



The innovative aspects of **MODISTO II** e-learning course are the topics, the pedagogical approach and the format. **The pedagogical approach includes the use and evaluation of practical competences based on the illustrative real cases encapsulated in a didactical learning environment.**

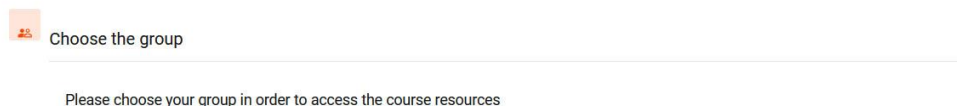


Fig 3. Detail of the screen prompting the user to choose a group.

Then, you can return to the list of training materials contained in the MODISTO course by clicking on "click here". At this point, you will have accessed Modisto II main page, where you will find all the teaching resources and tools necessary to undertake your training.

In each area, you will find the didactic units corresponding to the course. They always conclude with a final evaluation test that you must complete. All the sections that make up the module are highlighted in bold.

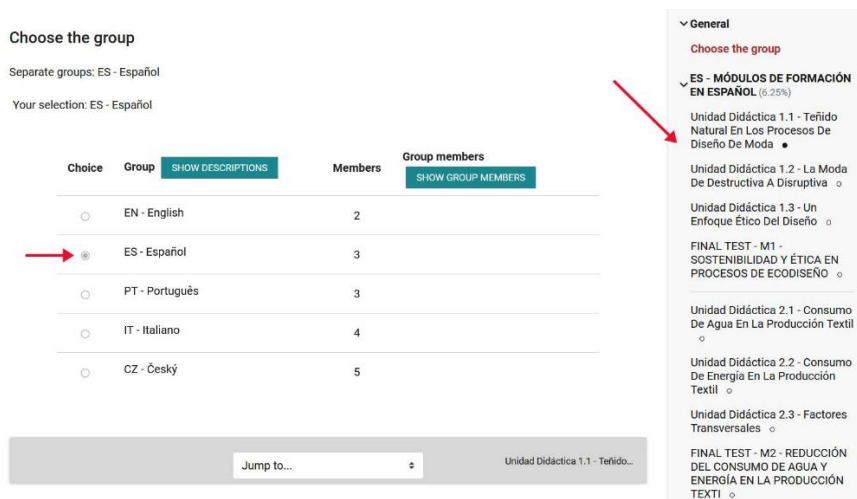


Fig 4. Detail of the different modules once chosen the language group.

At the end of MODISTO II course you will have access to MODISTO II virtual environment that will allow you to reinforce and evaluate the knowledge you have acquired through in-depth materials, interviews and practical cases. In fact, each practical case includes interactive checking activities for you to self-assess the acquisition of the relative knowledge/competence(s).

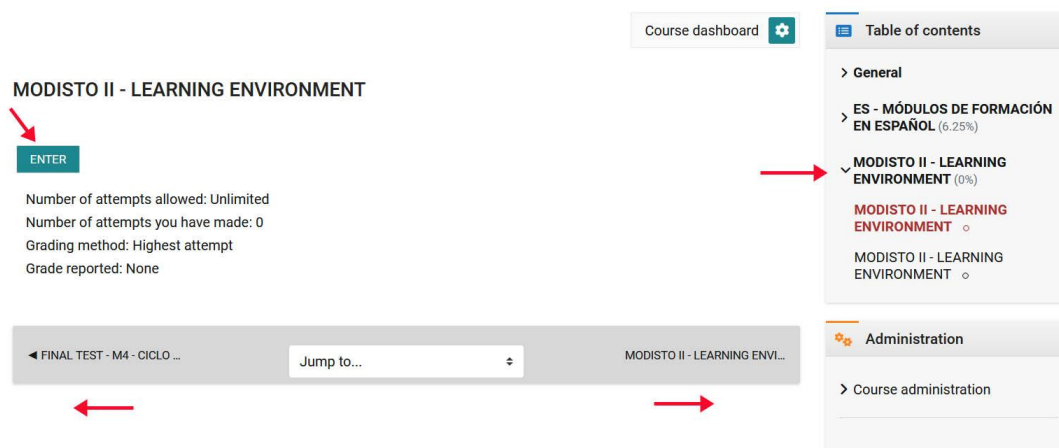


Fig 5. At the end of the different modules you can access MODISTO II practical learning environment.

Regarding the navigation through the units of each module, you can move forward and backward in the sections thanks to the functionality of the PREVIOUS/NEXT buttons (Indicated at the bottom of the screen next to the name of the corresponding section of the unit).

5. Structure of the course

The main aims of the MODISTO II e-learning course are:

- to support VET teachers and students to acquire knowledge on eco-design for processes in the Fashion and Textile industry
- to enable students to put into practice key competences through three practical cases on eco-design processes in the Fashion and Textile industry.

The innovative aspects of the MODISTO II e-learning course are the topics, the pedagogical approach and the format. The pedagogical approach includes the use and evaluation of practical competences based on the illustrative real cases encapsulated in a didactical learning environment.

The course is available in Spanish, Portuguese, Czech, Italian and English. It is available in the Erudire platform (www.erudire.it), as described in the previous section.

The Erudire platform has two main sections, where the different tools and resources are located:

- the e-learning course entry session where you can view the MODISTO II course description, access the MODISTO II course, and enter the course of the first leg of the Modisto project implemented between 2019 and 2021;
- the e-learning course home page, where you can access the didactic units, the learning evaluation tests and the learning environment containing multimedia didactic resources.

In the following image you can see the different sections and their different tools. It is the home page of MODISTO II course, and you can access to the different resources as explained in the previous section of this manual.

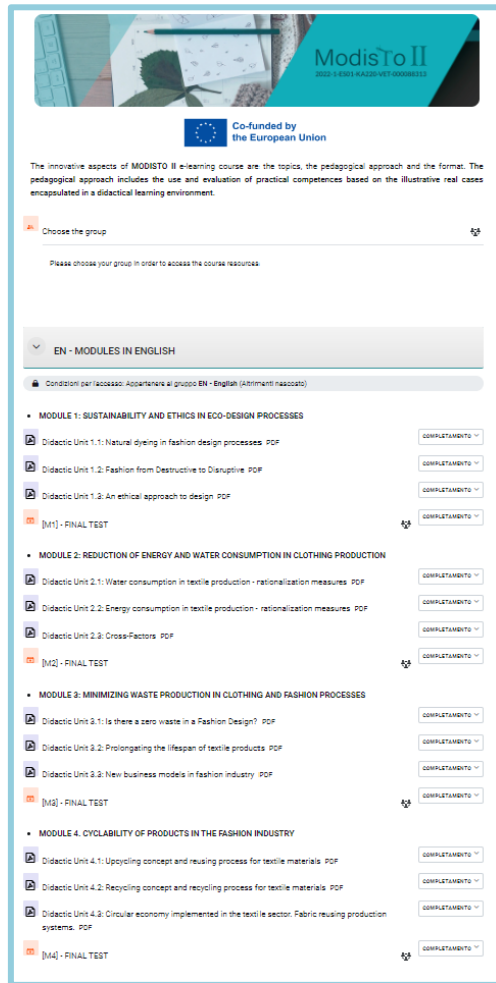


Fig 6. Overview of MODISTO II e-learning course home page

What follows are examples of the different elements of the structure of the course.



Fig 7. Example of didactic Unit

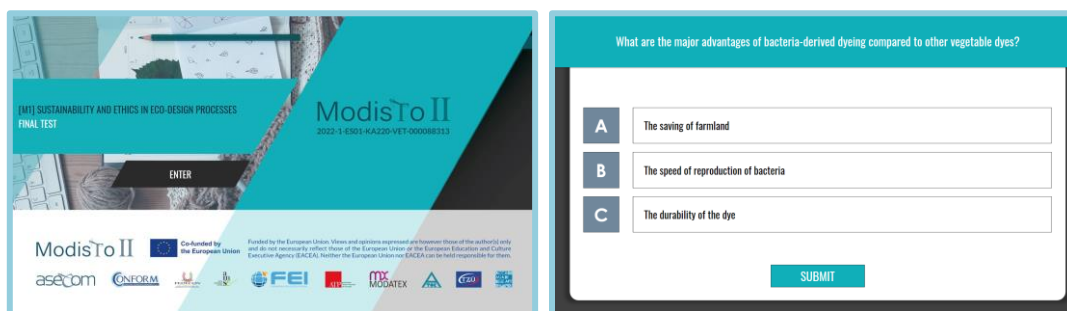


Fig 8. Example of evaluation test

6. Evaluation for each module

The evaluation of each module consists of a **10-question test in form format**. The questions are of multiple-choice type.

To access the desired evaluation, click on it and the test will open.

We recommend that you carry out the evaluation once you have completed the study and the activities of the training module.

We take this opportunity to wish you a beneficial training time and hope your effort and commitment will be useful to achieve your professional objectives and goals. To pass the course a threshold of 80% has been established on the different questionnaires.

7. Structure of the learning environment

The learning environment is a 3D hub which embeds virtual tours containing specific resources (interviews, practical cases, in-depth materials) and it guides students to complete their training path transforming online learning from passive to active behaviour.

The learning environment increases the degree of learner engagement, maximises the effectiveness of the training content and overcomes the limitations of one-way streaming. In fact, learners will have control over their learning process, and can explore the different insights (provided through external links) without having to follow a predetermined path that could make them feel like passive parties.

Inside the space, the learner will find the following map.

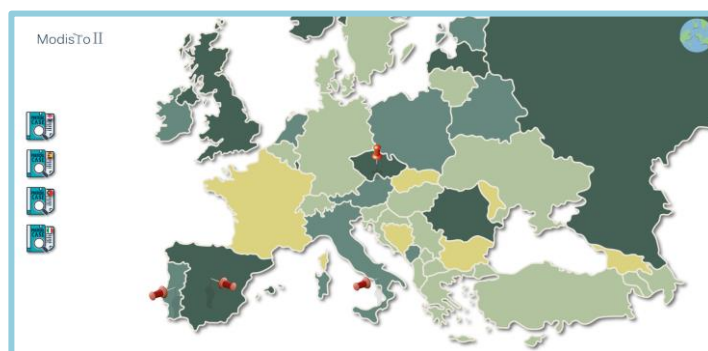


Fig 9. Access page to the learning environment of MODISTO II

Each clickable country inside the map (Spain, Italy, Portugal and Czech Republic) provides access to the following virtual tours:

- Spanish tour - learners will be able to navigate inside a denim shop and access the practical case study "Eco-design processes at Infnit Denim: case study". In addition, they can access some multimedia contents concerning the topics of eco-design industrial processes and reuse of fibres from already used denim garments to create new ones
- Italian tour - learners will be able to visit the Academy of Fine Arts in Naples and watch the practical case study 'Sustainability and ethics in eco-design processes' and can explore a variety of training contents on the topics of natural dyeing in fashion design processes, fashion from destructive to disruptive and the ethical approach to design
- Portuguese tour - learners can navigate through a textile industry and take a look at the in-depth practical case study 'Best practices in reducing water and energy consumption in the textile industry: ACATEL'. Furthermore, they can access multimedia contents based on the following topics: energy consumption in textile production, water consumption in textile production, and cross factors
- Czech tour - learners can visit a farm and explore the practical case study "Zero Waste design". They can explore a variety of training contents on the topics of local wool processing, wool sorting, sheep breeding, welfare and wool shearing, and soil to soil concept.

They can also decide to access the practical cases directly from the icons on the left of the map.

Here follow some tips to move around the learning environment. Students are advised to read these tips frequently until they are totally familiar with them.

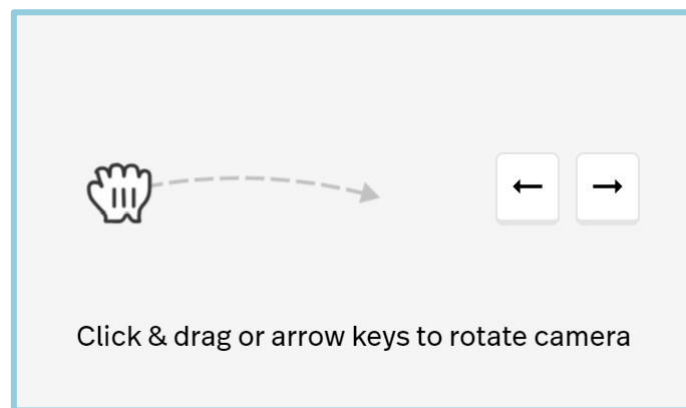


Fig 10. Overview of controls to operate the camera

Some of the sensitive elements may prompt you to use the camera. They can control the rotation of your camera with the specific controls included in the previous figure.



Fig 11. Overview of Home button

If students are inside a tour and want to go back to the map, all they have to do is click on the world icon in the top left corner.

All the in-depth materials linked to the practical cases to be investigated are posted on specific objects. Students have to click on the following icons if they want to:



Read articles or presentations



Explore training materials from the web



Access multimedia training contents

In this way, students can get insights and access to the learning materials, which can be of different nature: instructional videos, pdf documents and even access to specific units of the MODISTO II e-learning course.

The materials are distributed smartly, so that the students can progressively get insights into the different steps of the study cases, and get additional materials relevant to each of the different steps. Some of these materials require specific actions to be taken, so that the students practice their digital competences, while they walk around the metaverse.



Fig 12. Overview of Practical cases button

All the practical cases and interviews developed by the MODISTO II partnership are multilingual. In order to access the English, Spanish, Italian, Portuguese and Czech versions you need to click on the language icons which open a mask redirecting you to the practical case translated into the language selected.

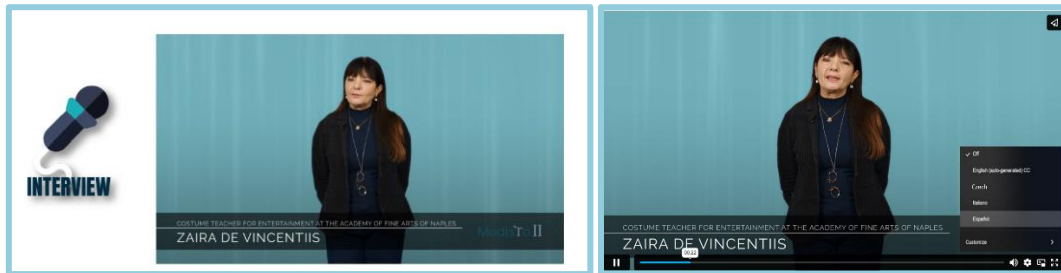


Fig 13. Overview of Interviews made by MODISTO II partnership

In order to access the subtitles of interviews in all partner languages (Spanish, Italian, Czech and Portuguese), you should click on the language icons which open a mask redirecting you to a VIMEO link, which is the platform where the videos are hosted.

8. Complementary interactive practical cases

The training programme includes complementary resources to the e-learning course. In particular, we have mentioned that 4 interactive practical cases (embedded in the virtual environment) illustrate real eco-design industrial processes. These real cases are associated with the different topics of the e-learning course, in most cases dealing with competences that are transversal to several of them.

8.1. Contents of the cases

The contents of the practical cases are summarised as follows:

Eco-design processes at Infinit Denim: case study

Description

- **reusing the fibres of already used denim garments to create new ones:** to be able to distinguish between raw material, transformation procedure and final product in an eco-design example;
- **introduction to the eco-industrial process:** to be able to identify properties of circular design, identify natural fibres and understand the importance of local production;
- **recovering used Materials:** to get to know models to recover used materials;
- **obtaining recycled fibres:** to understand different industrial processes required to obtain recycled fibres;
- **incorporating recycled fibres into new fabrics:** to understand industrial transformation processes to obtain new fabrics;
- **eco-recycled yarns design:** to become familiar with typical eco-designed recycled yarns;
- **summary of the benefits of this industrial process:** to identify benefits of eco-design industrial processes.

Sustainability and ethics in eco-design processes

Description

- Natural dyeing in fashion design processes: this topic focuses on natural dyeing in the fashion processes underlining benefits for the environment and people, collecting study cases and adding links, an explanatory video, a practical activity;
- Fashion from destructive to disruptive: this topic describes some cases studies about ethical fashion, illustrates parameters for a new way to project fashion such as slowness, circularity, durability, and technological innovation. Contents also analyse the work of emerging young fashion designers as cases studies. One practical case is linked to this topic + annex that illustrates it through photos and practical activity.
- Linda Havrliková. Ethical approach to design: this topic introduces the case study regarding the project of designer Linda Havrliková. It contains contents, an explanatory video, practical activity, links, bibliography.

Zero Waste Design

Description

- Local wool processing: use of local capacities for processing; short distances for transport and fully transparent supply chain;
- Wool sorting: there are several types of wool on 1 sheep, try to process all of them without waste;
- Sheep breeding, welfare and wool shearing: ethical approach to animals during the whole year and by shearing;
- Soil to soil concept - Regenerative fashion: material that is compostable or recyclable at the end of the product's life.

Best practices in reducing water and energy consumption in the textile industry: ACATEL

Description

- **Energy consumption in textile production - rationalisation measures:** this topic focuses on measures to rationalise energy consumption in textile production, especially in the production sectors where most energy is spent;
- **Water consumption in textile production - rationalisation measures:** In this topic, the aim is to review the measures to rationalise water consumption, especially in sectors where massive amounts of water are consumed;
- **Cross factors:** this topic is divided into 3 areas, with the aim of looking at the importance of Eco Design, digitalisation and regulation/certification in reducing water and energy consumption in the textile production process.

8.2. Structure of the cases

Each practical case is structured in the following sections: video training illustrates eco-design processes, subsequent evaluation sections aiming to reflect on key practical aspects of eco-design, additional resources and connections to the e-learning course to review and assimilate the intended eco-design competences.

To start one of the cases, you should access the required link either as a standalone resource, or within the learning environment. The following figure illustrates the entry screen:



Fig 14. Overview of the access page to one of MODISTO II practical cases

After accessing each practical case you will be shown a page with the authorship credits. Please note that the responsibility of these practical cases falls only on the authors. The funding agency waives any claims related to the contents of the practical cases.

You should click “Continue” after being shown the credits of the case. Then you will have full access to the training resource. Each practical case follows the structure indicated above in this section. For didactic purposes, we have indicated the different interactive contents with the word “session”. The purpose is that the student can acquire the intended competences at his/ her own learning pace.

Each practical case starts with a “training session”, which is presented in audio-visual format: See next figure.

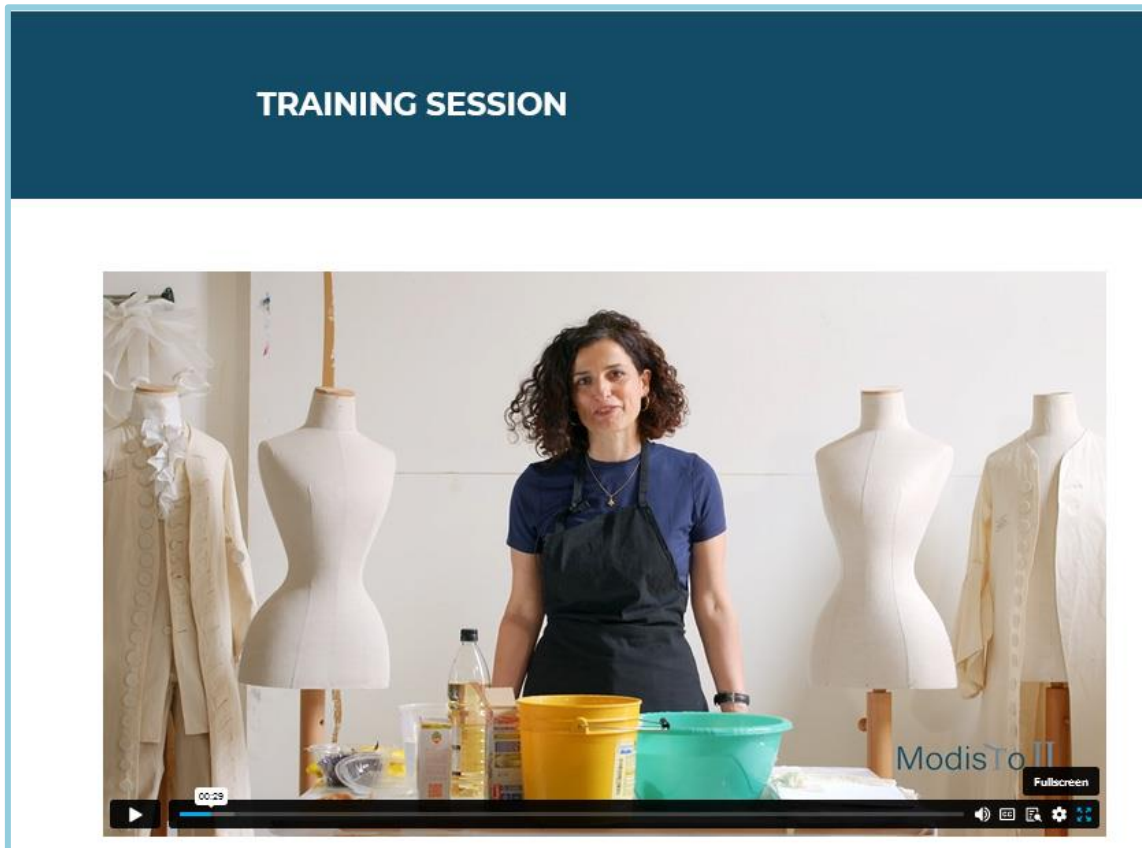


Fig 15. Overview of training session of a MODISTO II practical case

The student is expected to watch the audio-visual material and assimilate the key practical concepts referred to one or several eco-design processes. These concepts extend from simple techniques like eco-friendly use of dyeing material to more sophisticated industrial processes like energy savings or textile waste transformation.

To test his/her knowledge and self-assess his/her skills, the student can subsequently follow several evaluation sessions. These are considered as challenges in which the student must take a decision. He/She is presented with situations related to the practical case and the decision chosen can be optimal, incomplete, partially useful or not suitable at all from an ecological perspective of the design. Based on his/her decision, the student is prompted by a message suggesting additional learning options, in particular if the decision taken is considered suboptimal.

IMPORTANT!

Note that the evaluation sessions follow directly each training session. You just simply need to scroll down the webpage and complete them at your own pace. Evaluation sessions are autonomous from each other and can be taken at the student's own priority and interest.

Therefore, the evaluation session is an additional didactic resource itself, not simply stating whether a choice is correct or not, but instead providing guidance to the students to reinforce their choices, or propose complementary learning options.

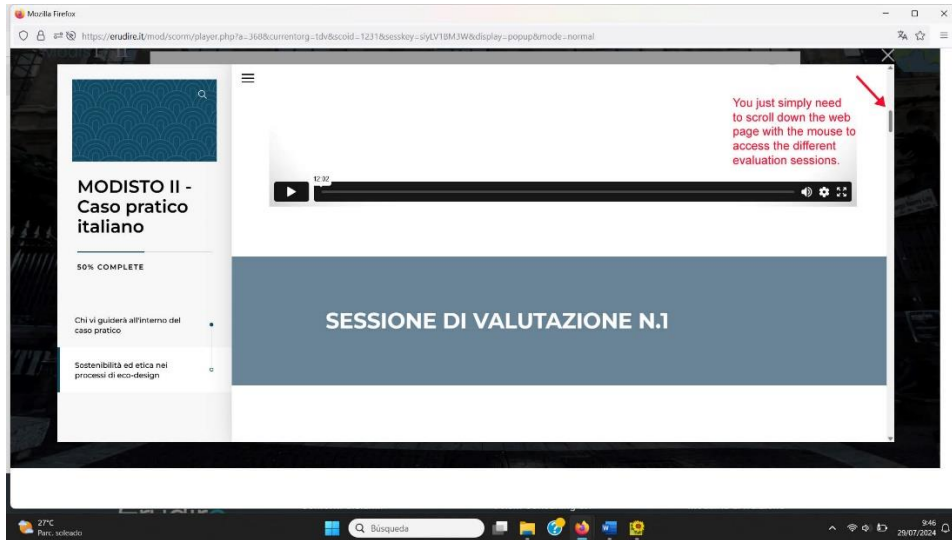


Fig 16. Scrolling down through different evaluation sessions

The following figure depicts the access to an evaluation session.

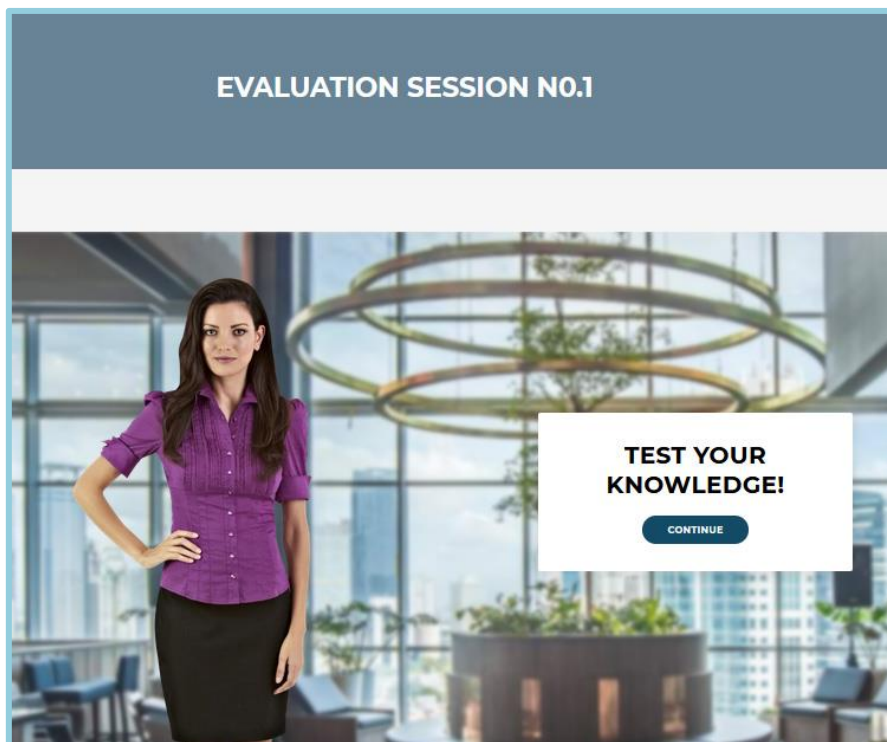


Fig 17. Detail to the entry page to an evaluation session in a MODISTO II interactive practical case.

Finally, the practical cases provide supplementary materials and access to the MODISTO II e-learning course, which are smartly suggested depending on the student's choice to the challenges presented in the evaluation. The following figure shows one of these smart suggestions:

IN-DEPTH MATERIALS SESSION NO.1

Did you fail the evaluation session no.1? We suggest you learn more about materials linked to feedback from the evaluation session.

Infinitt Denim eco-solution acts on the materials of used garments, not on the garments themselves to be used as second-hand clothes. You can see more on this process in this video.

VIDEO

Burning the used garments is not the ideal solution to transform the fashion industry. You may want to follow our e-learning course on eco-design for processes in the Fashion Industry.

ENTER THE COURSE

Fig 18. Detail of supplementary materials made accessible for the student after completing a practical case

IMPORTANT!

The practical cases have been designed to favour exploration by the students and trigger their initiative and interest. Yet, to achieve the full evaluation the system keeps record of the different evaluation sessions. The practical case is finished when the student completes all blocks. A lock is presented at the end of the case with the message: "Complete all blocks above" to inform the students conveniently.