



# Curriculum

## Green Innovation in the Fashion Industry management

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## Project Partners



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## General Aim of the Curriculum

### The context

The textile industry has been constantly growing for a long time, it is unfortunately one of the most polluting industries on earth and it has been estimated that 5/10% of total CO<sub>2</sub> emissions depend on it. Over the last years, and boosted by the European Green New Deal, there is an attempt and a focus in the European Union to reduce this problem through the use of new sustainable materials, green energies and training to the owners and workers of those industries. Most of the textile sector producers are small and medium enterprises, sometimes innovative but mostly traditional that, during the last years, suddenly started growing due to the massive demand for fast fashion textile products.

### Aim of the GIF training programme

The general objective of GIF - **Green Innovation in the Fashion industry management** - is raising awareness of the managers and workers of SMEs in the Fashion industry about the development of industry 4.0 together with the European Green New Deal Directive.

GIF project will develop an online training course and a training kit for the development of new approaches and ideas to a "greener" textile sector. Also, will develop new ideas and training for stakeholders who will learn how to reduce their emissions and pollution through an e-learning course, best practices, innovative green initiatives, multiplier events and exchanges of information and excellence in the specific sector. Addressing stakeholders' best practices and giving them instruments in order to make their industry greener will be fundamental for the future of the European Union and its 2050 objectives, considering the Sustainable Development Goals and the plan indicated by the UN with the UNEP agency.

## Target group – whom it may concern

The target audience for this course is:

- Managers and experts in the field of fashion/textile industries, designing and managing industrial processes;
- Trainers community;
- Researchers and academics

## Prerequisites for participation

Suggested main prerequisites for participation are:

- Knowledge and experience related to the fashion and textile industry
- Teachers that are engaged in the creative and cultural sector

## Training methodology

The project “Green Innovation in the Fashion Industry management” is aligned to EQF levels 4 and 5 and offers a full online course that will be delivered through the dedicated project’s Training Kit.

The program structure is organized in modules. All modules are structured in the same way: a description of the unit topic and subtopics, followed by an overview of the learning outcomes, using BLOOMS taxonomy, in terms of Knowledge, Skills, and Responsibility & Autonomy.

### Delivery Mode

The course will be listed on UNINETTUNO’s portal, dedicated to SLP, <https://gif.uninettuno.it/en/gif.aspx> . “SLP” stands for “Short Learning Program” and is a concept developed in a KA3 Forward looking innovation project, currently supported by all the open/online universities in EADTU (European Association of Distance Teaching Universities). Training contents will be available to all interested stakeholders after the project lifetime, in form of OERs (Open Educational Resources). The platform will be used as the tool for asynchronous interaction: shared documents for collaborative work, case studies and interactive exercises. Last but not least, UNINETTUNO’s learning analytics systems will be used for the evaluation and statistics for quantitative tracking and trainers’ feedback for qualitative evaluation.

### Language

Main language for content production will be in English, while pilots will manage adaptation/translation for their country language. Subtitles in all consortium languages will be included in the video lessons. Pilots will be launched in Italy, Greece, Spain, Romania, Germany.

## Modules

This course is based on three (3) Modules and its respective topics and sub-topics.

The Module 1 is referred to “New Regulations in the fashion and textiles industry”. It is well known that the fashion sector is an important industry in the European Union as it contributes significantly to the EU economy. However, it also has a significant impact on the environment, as it consumes large amounts of resources and produces a significant amount of waste. In response to this, the EU has developed a strategic and legal framework for the textile and fashion sector, aimed at promoting sustainability, reducing the sector's environmental impact, and improving the procedures.

The Module 2 is referred to “Promote the transition to a circular economy”. An economic model that aims to keep resources in use for as long as possible, is a way to reduce the environmental impact of our consumption and production patterns, while also creating new economic opportunities and improving resource efficiency.

The Module 3 is referred to “Circular Design”. This approach considers the entire lifecycle of a product, from raw material extraction and manufacturing to use, repair, and end-of-life disposal or recycling.



*Figure 1 The Modules addressed by this course*

All in all, GIF's Curriculum develops new approaches and ideas to a "greener" textile sector and provides new ideas and training for stakeholders who will learn how to reduce their emissions and pollution through an e-learning course, best practices, innovative green initiatives, multiplier events and exchanges of information and excellence in the specific sector. In continuance, addressing stakeholders' best practices and giving them instruments in order to make their industry greener will be fundamental for the future of the European Union and its 2050 objectives, considering the Sustainable Development Goals and the plan indicated by the UN with the UNEP agency.



## GIF Training Program Approach

### EQF level

This GIF training program is based on the European Qualifications Framework (EQF) (2018), a translation tool that helps understand and compare qualifications awarded in different countries and by different education and training systems. Its eight levels are described in terms of learning outcomes: knowledge, skills and competencies. The competencies described herein, are interrelated and interconnected in EQF levels 4 and 5, and are analyzed in terms of knowledge and skills, provided in a list of learning outcomes, which offer inspiration and insight for both trainers and trainees. Therefore, the following definitions are critical to establish an understanding of the program structure:

- 1. Learning outcomes:** Learning outcomes are statements of what a learner knows, understands and is able to do after completion of learning. Such statements can be designed and used for educational planning and curriculum development or for different types of accountability such as legal accountability or professional accountability.
- 2. Knowledge:** Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.
- 3. Skills:** Skills are the ability to apply knowledge and use expertise to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

**4. Responsibility and Autonomy:** Competencies are the proven ability to use knowledge, skills and personal, social and methodological abilities in work or study situations and in professional and/or personal development. Competences are described in terms of responsibility and autonomy in the EQF.

### ESCO qualification framework

In continuance, GIF's training program is aligned to ESCO (European Skills, Competences, Qualifications and Occupations). ESCO is the European multilingual classification of Skills, Competences and Occupations that works as a dictionary for describing, identifying and classifying professional occupations and skills relevant for the EU labour market and education and training.

The aim of ESCO is to support job mobility across Europe and therefore a more integrated and efficient labour market, by offering a "common language" on occupations and skills that can be used by different stakeholders on employment and education and training topics. Specifically, it is available in 28 languages, allowing job seekers and employers to better communicate about skills, training and jobs in any chosen European language. Through its use in the [EURES](#) portal and in many other online platforms, it helps European public and private employment services to offer their services across borders, languages and electronic systems, so that they can better support people who want to work in another European country. More information about ESCO can be founded here: <https://esco.ec.europa.eu/el/about-esco/what-esco>

The skills and competencies derived from ESCO and included in the GIF project are named below:

- thinking skills and competences
- self-management skills and competences
- social and communication skills and competences
- social and communication skills and competences
- communication, collaboration and creativity
- information skills
- management skills

All in all, GIF's course provides education supplies for the competitive labor market.

### Development of GIF training contents

The short learning program will consist of three (3) Modules composed by ten (10) Units. The core element of each unit is videolectures, linked with activities for learning by doing, potentially including self-graded finger exercises, assignments, simulations, case studies. Each unit will include one (1) video lecture of approximately ten (10) to fifteen (15) minutes or two (2) video lectures of approximately seven (7) minutes each. The total length is estimated to one hundred thirty-five (135) minutes. The main language of the course will be English, although translation into the consortium languages will be provided (IT, GR, ROM, SP GER). The teaching materials that will accompany each lesson will be:

- 1 PowerPoint presentation with approximately 20-30 slides for each lesson
- Syllabus and references
- Interactive exercises
- Case studies where needed for selected lectures
- Self-reading assignments
- 3-5 questions per Unit (true-false, multiple-choice, fill-in-the-blank)

## Assessment

The evaluation of the trainees will take the form of final assessment and it will be carried out at the end of each Unit. A total of five (5) comprehension questions (true-false, multiple-choice, fill-in-the-blank) will correspond to each Unit. The pass rate of the interactive assessment will be 60%.

## Credits

Last, GIF project ensures the transparency of the learning, teaching and assessment processes by providing ECTS credits. Trainees after successful completion of the GIF training programme will be rewarded with two (2) ECTS credits.

## Curriculum template

Upon completion of each unit participants will have acquired the following learning outcomes expressed in terms of Knowledge, Skills and Responsibility, and Autonomy.

### New Regulations in fashion and textiles industry

#### Description of the Module

The aim of this module is to introduce to the learner the EU's strategic and legal framework for the textile and fashion sector. The requirements aimed at promoting sustainability, reducing the sector's environmental impact, and improving its overall competitiveness. To comply with these, businesses must adhere to emerging legislation and be able to react quickly to changing requirements.

#### Topic 1.1: EU strategic and legal framework for textile and fashion sector

*1.1.1: Green Deal and Circular Economy Action Plan*

*1.1.2: EU Textile Strategy Textiles Policy Objectives*

*1.1.3: EU initiative for sustainable products - Sustainable Textiles and Fashion Products*

*1.1.4: Chemical Regulations*

*The learner be able to:*

#### Knowledge

- Comprehensive understanding of the EU's strategic and legal framework for the textile and fashion sector, including initiatives aimed at promoting sustainability and reducing environmental impact.

#### Skills

- Advanced capability in interpreting and applying complex regulations and directives related to sustainability, chemical safety, and product labeling in the textile and fashion industry.

### **Responsibility and Autonomy**

- Willingness to advocate for policies and initiatives that support sustainable practices and innovation within the textile and fashion sector at the EU level.

## **New Regulations in fashion and textiles industry**

### **Description of the Module**

The aim of this module is to introduce to the learner the Extended Producer Responsibility (EPR) policy approach that makes producers responsible for the disposal and management of their products at the end of their useful life. The EPR concept requires manufacturers, importers, and sellers of textile products to take responsibility for their products' entire lifecycle, including collection, reuse, and recycling.

### **Topic 1.2: Extended Producer Responsibility (EPR) Reuse and Recycling of textile waste**

*1.2.1: The EPR concept explained. Key elements, advantages, and disadvantages of EPR*

*1.2.2: Policy measures to support EPR in the fashion industry*

*1.2.3: Waste reduction strategies in the fashion and textile industry*

*The learner is able to:*

### **Knowledge**

- Comprehensive understanding of the Extended Producer Responsibility (EPR) policy approach, including its key elements, objectives, and implications for the textile and fashion industry.
- Profound knowledge of waste reduction strategies applicable to the fashion and textile industry.

### **Skills**

- Advanced analytical skills to assess the effectiveness and feasibility of EPR implementation in the fashion and textile industry, considering factors such as regulatory compliance, cost implications, and stakeholder engagement.

- Develop and implement policy measures to support EPR initiatives in the fashion industry.

**Responsibility and Autonomy**

- Willingness to take responsibility for the entire lifecycle of textile products and contribute to their sustainable management.
- Ethical and responsible approach towards business practices, prioritizing environmental stewardship and social responsibility.

## New Regulations in fashion and textiles industry

### Description of the Module

New regulations have been introduced to the fashion and textiles industry to ensure that products marketed as sustainable are genuinely environmentally friendly. The aim of this module is to provide learners with an understanding of these regulations and the measures that companies can take to ensure that their products are truly sustainable.

### 1.3: Green Claims for truly sustainable textiles

*1.3.1: What is greenwashing?*

*1.3.2: Sustainable Brand Index*

*1.3.3: Sustainable Products Initiative*

*The learner is able to:*

#### Knowledge

- Profound understanding of the new regulations introduced in the fashion and textiles industry to ensure the authenticity of sustainability claims, including their objectives, scope, and enforcement mechanisms.
- Familiarity with the Single Market for Green Products Initiative and its role in promoting genuine sustainability in the market.

#### Skills

- Advanced capability to implement measures within companies to ensure that products marketed as sustainable meet environmental standards.

#### Responsibility and Autonomy

- Openness to learning about and adapting to new regulations and initiatives aimed at improving sustainability practices.



## Promote the transition to a circular economy

### Description of the Module

The approach of linear production model in the textile and fashion industry is unsustainable and damaging to the environment. The circular economy offers a more sustainable alternative, which aims to keep resources in use for as long as possible, reduce waste, and minimize environmental impact. The aim of this module is to introduce learners to the principles of circular economy in the textile and fashion industry, including the main strategies for achieving a circular fashion model.

### Topic 2.1: Principles of circular economy in the textile and fashion industry

*2.1.1: Definition of circular economy*

*2.1.2: Recognize the difference between linear economy and circular economy*

*2.1.3: Introduction to circular economy principles for fashion*

*2.1.4: Main strategies of circular fashion*

*The learner is able to:*

#### Knowledge

- Advanced understanding of the concept of circular economy and its application in the textile and fashion industry, including its principles, objectives, and key components.
- In-depth knowledge of the differences between linear economy and circular economy models, including their impacts on resource use, waste generation, and environmental sustainability.

#### Skills

- Advanced capability to integrate circular economy principles into fashion design and production processes, including implementing strategies to extend product lifespan, reduce waste, and promote resource efficiency.

#### Responsibility and Autonomy

- Commitment to promoting sustainability and circularity within the textile and fashion industry through the adoption of circular economy principles and practices.

## Promote the transition to a circular economy

### Description of the Module

This module aims to introduce to the learner the impact of textile production on the environment, society, and economy and how to mitigate these impacts through sustainable sourcing and the use of sustainable fabrics. Innovations in sustainable textiles and how they are contributing to the development of more sustainable and innovative products are also included.

### Topic 2.2: Sustainable Textile expertise

*2.2.1: Impact of industry*

*2.2.2: Fibers and alternatives*

*2.2.3: Sustainable Sourcing*

*The learner is able to:*

#### Knowledge

- Profound knowledge of different types of fibers used in textile production as well as their environmental and social implications.

#### Skills

- Assess the environmental and social impacts of textile production processes and supply chains, and to identify opportunities for improvement and mitigation.

#### Responsibility and Autonomy

- Proactiveness in implementing measures to improve the sustainability performance of textile products and supply chains, and in contributing to the development of more sustainable and innovative products.

## Promote the transition to a circular economy

### Description of the Module

In this module, it is essential for the learner to understand sustainable textile manufacturing processes, identify sustainable production processes and strategies, and apply circular strategies to minimize the impact of the supply chain.

### Topic 2.3: Understanding the impact of fashion and textiles supply chain

*2.3.1: The Textile supply chain*

*2.3.2: Environmental, social and animal welfare impact in the fast fashion supply chain*

*The learner is able to:*

#### Knowledge

- Advanced understanding of sustainable textile manufacturing processes, including techniques for reducing resource consumption, minimizing waste, and mitigating environmental impacts.

#### Skills

- Proficiency in identifying and implementing sustainable production processes and strategies within textile manufacturing operations, including evaluating technologies, materials, and practices for their sustainability performance.

#### Responsibility and Autonomy

- Proactiveness in implementing measures to improve the sustainability performance of textile supply chains.

## Promote the transition to a circular economy

### Description of the Module

This module aims to inform the learner about transitioning to a circular business model that requires a mindset shift from the traditional linear economy approach, and it can bring significant benefits to businesses and society by reducing waste, conserving resources, and creating new economic opportunities.

### Topic 2.4: Different Circular Business Models

*2.4.1: Circular Business Model*

*2.4.2: Economic value and GHG emission reduce or resale, rental, repair and remaking by 2030*

*2.4.3: Positive results of circular business models*

*The learner is able to:*

#### Knowledge

- Advanced understanding of the steps involved in transitioning to a circular business model, including assessing current operations, identifying opportunities for circularity, and implementing changes to business practices.

#### Skills

- Ability to analyze the concept of value creation in a circular economy and identify opportunities for value creation within businesses.

#### Responsibility and Autonomy

- Willingness to advocate for the adoption of circular business models within organizations and across industries, and to actively engage with stakeholders to drive positive change.

## Promote the transition to a circular economy

### Description of the Module

The aim of this module is to raise awareness about the technological advancements in manufacturing and design that can transform the way products are created, resulting in increased efficiency, productivity, and innovation.

### Topic 2.5: Innovative technologies in the textile and garment manufacturing phase

*2.5.1: Technological advancements in the textile manufacturing process*

*2.5.2: Technological advancements in the garment manufacturing process*

*The learner is able to:*

#### Knowledge

- Comprehensive understanding of the potential impact of innovative technologies on the textile and garment manufacturing industry, including increased efficiency, productivity, and sustainability.

#### Skills

- Assess the suitability and effectiveness of different technological advancements in textile and garment manufacturing processes.

#### Responsibility and Autonomy

- Commitment to promoting innovation and technological advancement within the textile and garment manufacturing industry, in alignment with sustainability and efficiency goals.

## Circular Design

### Description of the Module

The aim of this module is to inform the learner about the critical role that the design stage plays in the fashion and textile supply chain by influencing the environmental and social impact of products. By adopting sustainable and circular design practices, designers can contribute to a more sustainable and circular fashion industry.

### Topic 3.1: Circular Economy

*3.1.1.: The role of the design stage in a circular fashion system*

*3.1.2: Circular design Definition & Principles*

*3.1.3: Circular design Strategies*

*The learner is able to:*

#### Knowledge

- In-depth knowledge of circular economy principles and their application to fashion design

#### Skills

- Proficiency in applying circular design principles and strategies to fashion design processes

#### Responsibility and Autonomy

- Proactiveness in implementing circular design strategies and initiatives, and in contributing to the development of policies and standards that support sustainability and circularity in fashion design.

## Circular Design

### Description of the Module

Digital innovations have transformed the fashion and textile industry, providing designers with new tools and technologies to enhance their design process. This module provides some digital innovation tools used in fashion and textile design.

### Topic 3.2: Digital innovations in Fashion Design

*3.2.1: Current landscape in the fashion industry*

*3.2.2: Digital innovation tools in fashion and textile design*

*The learner is able to:*

#### Knowledge

- Advanced understanding of the transformative impact of digital innovations on the fashion and textile industry, including the evolution of design processes and the integration of digital technologies

#### Skills

- Skill in evaluating and selecting appropriate digital innovation tools based on project requirements, design objectives, and technological capabilities

#### Responsibility and Autonomy

- Commitment to embracing digital innovation and technological advancements within the fashion and textile industry, in alignment with creativity, sustainability, and competitiveness objectives

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