

OCTOBER 2023 - NEWSLETTER - ISSUE 2

DISCOVER THE FUTURE OF THE FOOTWEAR INDUSTRY



The Erasmus+ Shoe 5.0 follows the concept of Industry 5.0 and aims at preparing European footwear companies to embrace the challenge of the transition into a sustainable, human-centric, and resilient industry, by providing footwear workers with the skills and knowledge they need to interact effectively with the implementation of new technologies, processes and systems.

Over the past few months, the consortium, supported by experts, has conducted documentary and field research as well as focus groups to understand the current state of play and provide an effective implementation of Industry 5.0 applied to the footwear sector. Using the data collected, the consortium developed key profiles related to the footwear industry and customised training plans based on their specific needs.

The partners are currently holding collaborative workshops with experts from companies and technology centres to disseminate the project's two first outputs: the study on i5.0 applied to the footwear industry in Europe and the study on the key profiles selected for the future i5.0 footwear workforce. Next step is the development of the training needs analysis tool that will help assessing the workers' training needs related to Industry 5.0, a tool of great value for footwear companies.

Throughout this edition of the project's newsletter, you will learn more about the different key profiles and discover the units addressed by this training plan.

We hope you enjoy this journey into footwear 5.0 and invite you to keep following the project news on our social media ([Facebook](#) and [Instagram](#)) and on [website](#)!

What are the key profiles of the Industry 5.0? (Politecnico Calzaturiero)

Key profiles have been defined to best prepare the footwear industry's future workforce for Industry 5.0, based on focus groups, documentary research and questionnaires carried out with the help of footwear industry companies and experts.

In this context, specific profiles required by the footwear industry have been defined to facilitate the transition to Industry 5.0. This will evolve from the concept of the "intelligent factory" and add greater interaction between man and machine, focusing on human resources.

Thanks to the research carried out in each partner country and the consequent analysis of the data collected, the project partners have produced an overview of the existing work profiles in the footwear sector, their characteristics and their presence in the target countries.

As a result, the consortium identified four existing profiles, most of which are present in all the countries concerned, and they also planned the definition of a fifth, non-existent profile, to be developed.

Footwear Technical Manager

The footwear technical manager is a professional responsible for managing technical information for the footwear development process. He or she is responsible for creating technical information and collaborating with all departments to ensure an efficient transition from footwear models to prototypes and marketing.

Their activities include managing the workforce and staff, as well as the production line, and supervising the technological tools and machines used in the production process.



Footwear Manufacturing Operator

The footwear manufacturing operator is the person in charge of the production equipment before, during and after manufacture. As a Manufacturing Operator, his/her duties include carrying out cutting, sewing, assembly, finishing operations, testing and inspecting for problems, operating during the production process and ensuring that all safety procedures are followed.

They must have knowledge and experience in the various parts of the footwear production process and be able to carry out production, assembly and finishing activities. They must also know the procedures necessary to achieve the required quantity and quality of production while respecting the safety conditions established in the work environment.

What are the key profiles of the Industry 5.0 ? (Politecnico Calzaturiero)

Footwear Designer/Pattern Maker

The footwear designer/pattern maker is responsible for all aspects of shoe design. They must take into account style, materials, colours, customers, price, trends and product performance. The model maker is also responsible for creating a proportioned model that fits the last perfectly, following the instructions given by the designer.

Their main activities relate to the design and planning of models (including the production of a feasibility study, the creation of drawings, etc.). In addition, they must ensure that internal procedures are responsible and comply with the various rules and legislation concerning quality standards, health and safety and environmental protection.



Maintenance Technician

The maintenance technician carries out routine maintenance on equipment, machines and production facilities and helps to diagnose and repair mechanical or electrical problems when they arise. They carry out preventive and emergency maintenance. In a manufacturing or industrial environment, they help to diagnose and quickly repair any mechanical, hydraulic, pneumatic or electrical problems that occur in manufacturing processes and plant support equipment and systems.

Footwear Architect 5.0 – the new profile

The footwear architect 5.0 is a professional who possesses skills, knowledge and behaviours related to Industry 5.0.

This is a newly-created profile that brings together the transformation needs associated with Industry 5.0 and relates them to the skills and knowledge associated with the footwear sector. They will work in footwear companies and specialise in the interaction between machines and operators, as well as having expertise in robotics and artificial intelligence.



Discover the customised training units! (Footwear Technology Center of La Rioja - CTCR)

As previously presented, the Shoe 5.0 project was born in the spirit of bringing the future fifth industrial revolution to the footwear manufacturing sector. This future great revolution is structured around three fundamental pillars:

Human - centric approaches

Business resilience

Sustainability

The first consideration is that companies should in the future focus more on employee well-being, attracting and retaining talent, and creating workspaces that foster both creativity and personal fulfilment in the workplace. This means emphasising the principles of teamwork and cross-collaboration between company departments to create inclusive workspaces where multi-disciplinary staff are highly valued.

The second axis aims to equip companies with the ability to adapt quickly to current business uncertainties, by creating robust and agile decision-making companies. Organisational charts, automatable decision-making mechanisms and the hydration of data lakes will even make it possible to predict future trends. These three tools are interwoven using artificial intelligence and machine learning systems.

The third aims to make progress in the green economy, taking a further step towards sustainability. We must no longer be satisfied with having a green product or a green company, but aim for sustainability. Sustainability, in this sense, goes beyond recycling in our facilities; it means that our production process must be respectful of the environment and that the actions we take must have a minimal impact.

In order to up-skill staff, we have defined the following set of training units (ULOs):

Human resources management for i5.0 (mentoring, training, career management skills, communication and emotional intelligence in leadership)

The people who drive our industries have changed. That's why we need to update the way we work with teams and individuals. In this unit, we will introduce you to new team management and emotional control techniques.

Programming using Block Language

In our workplaces, it is increasingly common to work with computer hardware or programmable machines. In this unit, we propose to learn a graphical programming language that can help us make decisions or create simple automated systems.

Big Data (analytics)

Data in itself does not provide anything, but the ability to sort and organise it transforms it into information, and information is power. In this unit, we'll show you how to analyse and transform large sets of data into useful information for everyday work.

**Discover the customised training units!
(Footwear Technology Center of La Rioja - CTCR)**



Networking and Coworking

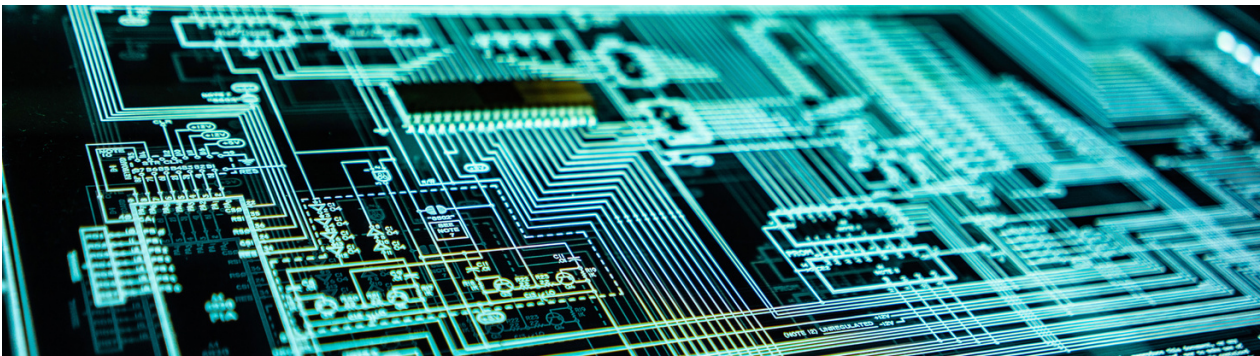
Establishing new collaborative networks and working with new agents in the production chain enhances our professional potential. In this unit, we'll show you how to create these connections and networks successfully.

Product traceability and supply chain for i5.0 (recycling)

Knowing how to answer the questions of who, when, how, where and why a process was carried out is becoming more and more important every day, and even more if we want to be champions of sustainability. In this unit, you will learn techniques for answering these questions, with a focus on resource reuse.

Artificial intelligence (AI) in the footwear industry (to support design, prototyping, logistics and communication)

Artificial intelligence is here to stay, and even if we are only in the early stages of its implementation, this technology will be vital to our day-to-day performance. In this unit, we will suggest techniques and show you the tools that use this technology to face this change without fear but with enthusiasm.



Manufacturing i5.0 (energy efficiency, lean robotics,)

Whatever the technological revolutions, we must continue to manufacture our products. Let's do it more efficiently, without rework, and maximising the contribution to added value. In this unit, we will teach you how to achieve this objective by applying production paradigms such as LEAN or by reducing incorrect practices in the manufacture of our products.

**Discover the customised training units!
(Footwear Technology Center of La Rioja - CTCR)**

Co-innovation 5.0

The wheel of innovation must never stop turning. In this new revolution, that wheel is turning thanks to a multitude of gears. Learn new techniques for introducing innovation into all your company's processes, don't remain a prisoner of the past and become one of the players.

CSR for i5.0 (openness, transparency, ethics)

The current perception of our sector is that it is outdated, manual and lacking in professional skills. In this unit, we will show you the tools available to improve corporate social responsibility, be more transparent, open, and with a proactive work mentality, retain and create talent, not destroy it!

Ergonomics and digital anthropology (health and safety)

Preventing accidents at work and the emergence of muscular fatigue and tension due to poor or forced postures in the workplace is one of the biggest productivity losses today. This unit is designed to reduce these injuries, either through the correct use of our equipment, or by presenting solutions such as collaborative passive exoskeletons.

Bio-inspired materials and technologies

As much as we want to progress in the use of new materials and increasingly technological processes, we should always look at how our predecessors did their job, and there is no greater predecessor than Mother Earth. In this unit, we'll show you how new materials based on biotechnology came about, and how we can apply biological processes to our business.



Well-being in i5.0

A happy worker is a productive worker. A happy, motivated and i5.0-trained worker is a key player in our workforce!

This unit will attempt to demonstrate that we should not simply pay lip service to the importance of our employees, but that we should look for ways to provide the necessary tools to achieve this goal.



**Discover the customised training units!
(Footwear Technology Center of La Rioja - CTCR)**

Circular design / Materials / Smart materials / Processes

We all know that the circular economy is the new reality in production. We will show how every element of the production process can be considered in this perspective, from the design of our final product, the shoe itself, to each of its components, and even the processes we use to make it.

Managing technological changes



Change always generates fear. Let's not let this phrase rule our lives and transform it into the idea that change creates opportunities and new ways of developing professionally. This unit aims to provide training in change management processes and the adoption of new methodologies or technologies in our daily work. We need to be ambitious in adopting technological changes but they need to be adopted thoughtfully and appropriately, we will assist you in this regard.

Ultra-customisation of products

"I want orange shoes with a yellow tongue and a blue stripe... I don't have them..." The system has changed, now we must respond: you want them, you pay for them, I make them and send them to you. Product customisation is here to stay; in this unit, we will show you this new reality and how to introduce the changes needed to manage such small-scale production without disrupting our production pace.

These training modules have been carefully selected to act as a driving force and source of improvement for the skills, competencies and aptitudes of our workforce within the industry. They are ready to transform the journey towards the fifth industrial revolution in the footwear sector into a magnificent source of opportunities for strengthening companies' competitiveness.

**IF YOU WANT TO LEARN MORE ABOUT THE PROJECT, YOU CAN FOLLOW OUR
ACTIVITY ON THE PROJECT WEBSITE AND SOCIAL MEDIA. DO NOT HESITATE TO
CONTACT THE CONSORTIUM FOR ANY INFORMATION YOU MAY NEED!**



PROJECT PARTNERS



Gheorghe Asachi
Technical University of Iasi
(TUIASI)



Politecnico Calzaturiero

PROJECT COORDINATION



Project Leader

Capital Humano Edit Value, Lda
www.editvalue.com
Praceta João Beltrão n.º 16 4715*286
Braga (Portugal)



Communication

CEC - European Footwear
Confederation
www.cec-footwearindustry.eu
Square de Meeûs 37
1000 Brussels (Belgium)

ERASMUS+ SHOE 5.0

**KA220-VET - Cooperation partnerships in
vocational education and training**

**Project reference: 2022-1-PT01-KA220-VET-
000088122**



SHOE 5.0

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the
Erasmus+ Programme
of the European Union