



SHOE 5.0

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Shoe 5.0 -Report on the Transferring of the Shoe 5.0 Methodology to Other Sectors

**Partnership for Footwear
Industry 5.0 Readiness**

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Document name	A5.3 Report on the Transferring of the Shoe 5.0 Methodology to Other Sectors
Abstract	<p>This report outlines the work under the Erasmus+ Shoe 5.0 project Activity 5.3 – “Transferring the methodology to other sectors”, led by the European Footwear Confederation (CEC). The activity aimed to extend the project’s reach by promoting its results to other industries and regions.</p> <p>CEC and partners engaged with external associations to present the Shoe 5.0 tools and training materials, demonstrating their relevance to Industry 5.0. Through online and in-person meetings in Spain and Greece, the activity fostered collaboration and supported the transferability and long-term impact of the project’s outcomes.</p>
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Introduction

This report provides an overview of the work carried out under the Erasmus+ Shoe 5.0 project's Work Package 5 (WP5), Activity 5.3: "Transferring the methodology to other sectors: Furniture, Metal, Ceramic", led by the European Footwear Confederation (CEC).

The objective of this task is to set up the basis for future cooperation with external parties and ensure that the project results will remain active and replicated. It is all about projecting the project outcomes in the future and how they can scale up across other actors and regions in Europe after the project ends.

Activity 5.3 is more than a dissemination action, since it allows Shoe 5.0 to be promoted to other business sectors, business associations, and VET organisations in other countries. The consortium understands the importance of reaching out and involves all target groups and stakeholders to maximise the impact and visibility of the project activities.

CEC, with the support from the other partners, were responsible for getting in contact with different stakeholders from other countries (that were not part of the project) to spread results and promote the transferability of the results to other geographies and even to other economic activities.

Industry 5.0 is a transversal topic to several activities and sectors; it will be embedded in all economic activities. By working collaboratively alongside CEC, partners could find common interests in other organisations and influence the decision to use Shoe 5.0 as a case study in different sectors and in different countries.

The organisations were reached out to through email and all meetings took place via Teams except for the meeting with the Erasmus+ Learning Factories project, which took place in person during a project bootcamp in Ubrique, Spain, and the meeting with CEC's national association members, which was held in Athens.

In the different meetings, CEC presented the Erasmus+ Shoe 5.0 project and discussed its outcomes with them: the curricula and training programme, scanning tool, app, and studies. The presentation was followed by a set of questions on the state of art in their industries in terms of challenges and introduction to Industry 5.0 to facilitate the discussion with participants.

Meeting with COKA - Czech Footwear and Leather Association

Date: 2025/03/11

Participants

Name	Organisation
Carmen Arias and Alice Widerberg	The European Footwear Confederation (CEC)
Jitka Gregory and Mirka Komínková	COKA – Czech Footwear and Leather Association

Discussion

Companies and Industry preparing for Industry 5.0

There are not many companies in Czech Republic that know about industry 5.0. COKA thinks the Shoe 5.0 manual for trainers is interesting and seems user-friendly. For them it is essential to promote training the trainers, so they found the project outcomes a good opportunity. There is a high demand for new workers in the shoe industry in Czech Republic. A new facility has been established for footwear and leather training, but they need teachers who know more about recent technologies.

Industry challenges

Czech footwear companies face many challenges, such as the green transformation. They must implement a lot of new legislation including a new law about product safety. It is hard to find workers who master these new requirements, which poses a major challenge for the industry.

There are not so many education centres in Czech Republic focused on footwear. One of them is a secondary school with art and footwear design in the curriculum. The second one is a technical lyceum. In addition, there are three universities, Tomas Bata University in Zlín, the Academy of Art, Architecture, and Design in Prague, and the Technical University of Liberec. COKA cooperated with the secondary school of art and design in the application of an Erasmus+ project for VET about sustainability in curricula.

Automation, AI, and digitalisation impacting your industry in the next 5–10 years and the role of SMEs

In terms of automation/AI impacting companies in the future, companies do not have skilled workers who know how to use it, neither courses, and they only count with some education texts that are translated into Czech. Therefore, in the future, the Shoe 5.0 material could be

used in many practical stages of production. Companies in Czech Republic are small. One company has a fully automatic inventory, but they do not produce. There is no automatic production in the Czech shoe industry.

Interest in Shoe 5.0 training programme

They find the ULOs interesting, but they seem too advanced for them. ULO 2 (Programming using block language) and 4 (Networking and coworking) are of particular interest for them because they do not know about the topics. Teachers in the educational institution will be interested in the programme. Teachers in production as well, but they have little time.

Shoe 5.0 Training Programme

Each ULO consists of four microcredentials, totalling 100 hours of studies, and aligns with EQF level 5 or 6.

ULO number	Use of AI/ML tools of learning automation	Footwear technical manager	Footwear manufacturing operator	Footwear designer / pattern maker	Maintenance technician	Old footwear designer
1	Management of human resources for Industry 5.0					
2	Programming using Block Language					
3	Big Data in Footwear Industry 5.0					
4	Networking & Coworking					
5	Product Usability & User's Needs for Industry 5.0					
6	Artificial Intelligence (AI) in Footwear Industry 5.0					
7	Manufacturing 5.0					
8	Customization 5.0					
9	Generative Design: Responsibility for Footwear Industry 5.0					
10	Biomechanics and Digital Anthropology					
11	Non-destructive testing and technologies					
12	Marketing in Industry 5.0					
13	Circular Design, Smart Materials and Innovative Processes in Footwear Industry 5.0					
14	Management for Technological Change					
15	Ethics and Mass Customization					

Legend:
 Very relevant: Green
 Relevant: Yellow
 Not relevant: Grey

In each ULO:
 25 microcredentials
 25 hours of studies
 25 credits (in app)

Meeting with COTANCE – The Confederation of National Associations of Tanners and Dressers in Europe

Date: 2025/03/20

Participants

Name	Organisation
Carmen Arias, Alice Widerberg, Viola Rana	The European Footwear Confederation (CEC)
Vita Kobiela	COTANCE – The Confederation of National Associations of Tanners and Dressers in Europe

Discussion

Industry challenges

Challenges in the leather industry include the difficulty of attracting the younger generation and combatting false ideas of what it means to work in the industry. In addition, there is also a challenge with the latest EU Deforestation Regulation that has included leather under its scope despite it having been proven that this material is not a driver of deforestation. The leather industry is also often overlooked or lumped into broader TCLF strategies, without recognising the specificities of such material. Traceability of leather and skin is complex because the information on the origin is often lost when the hide leaves the slaughterhouse. The European leather industry is characterised by SMEs who struggle to keep up with the new legislation.

Interest in Shoe 5.0 training programme

Vita Kobiela finds the training programme and project interesting. The project had already attracted some attention from the leather sector, and a leather company had enquired about the project after having read one of CEC press releases, and a second one as well following a social media post. They identified some of the training modules that could be easily applicable to leather businesses and will spread it among their education and training centres.



Meeting with TIE - Toys Industries Europe

Date: 2025/03/20

Participants

Name	Organisation
Carmen Arias, Alice Widerberg, Viola Rana	The European Footwear Confederation (CEC)
Andrea Masotto	TIE - Toys Industries Europe

Discussion

Industry challenges

The main challenges for toy manufacturers include unfair competition from non-compliant traders. Many traders not established in the EU offer products that do not meet EU safety standards. Online platforms selling non-compliant toys from non-EU sellers is also an issue. The non-compliant products destroy the competitiveness of European manufacturers who invest in full safety compliance. Other challenges involve the regulatory burden suffered by the SMEs to comply with the legislation. The rising cost of raw materials and the increasing production costs also represent a challenge.



Meeting with CEC Members, EU national footwear, leather goods and footwear components associations

Date: 2025/06/12, Athens

Participants

Name	Organisation
Carmen Arias, Ivan Bosch Chen, Rosana Perán	The European Footwear Confederation (CEC)
Roger Vrechopoulos, Meletis Karabinos	ELSEVIE – Hellenic Association of Footwear Manufacturers and Exporters
Joao Maia, Claudia Pinto	APICCAPS – Portuguese Footwear, Components, Leather Goods Manufacturers Association
Giorgio Possagno, Matteo Scarparo	Assocalzaturifici – The national association representing Italian shoemakers
Salvador Gómez, Julia Villaplana García	FICE – The Federation of the Footwear Industry in Spain
Dubravko Cuk	HUP – Croatian Employers' Association
Berke Icten, Orhan Balta	TADS – Footwear Industrialist Association in Turkey

Discussion

Several national associations' representatives recognised the challenges faced by companies in the technological and digital transformation of their challenge. One of them relates to the current workers, particularly those more aged, who are not open to changing their working

practices and processes. The Spanish association shared the best practice adopted by a few companies of adapting Lean Management practices in which they incorporated some new and automation practices. It took some time to convince workers, but they are now very enthusiastic, even older generations. They recognised that those companies would welcome the project outcomes, including the teachers' training material.

The Croatian Employers' Association that also represents other manufacturing sectors such as the newspaper publishing industry and the construction sector was very enthusiastic with the training programme in view of its potential for replicability. They indicated that they will plan a workshop to present it to the companies of these two other sectors, which seem the most suitable for this purpose.



Meeting with Leather Goods Stakeholders in Erasmus+ Learning Factories Project

Date: 2025/07/23

Participants

Name	Organisation
Alice Widerberg	The European Footwear Confederation (CEC)
Mikolaj Nowakowski and Monica Nowakowska-Twaróg	Globalnet sp.zo.o. (Poland)
Rui Moreira and Alexandra Saraiva	Centro Tecnológico do Calçado do Portugal (CTCP) (Portugal)

André Amorim	Belcinto (Portugal)
Aura Mihai and Alina Iovan-Dragomir	Gheorghe Asachi Technical University of Iasi (TUIASI) (Romania)
Marcos Obando Ramírez and Ana Vazquez	ASOPIEL – Ubrique Leather Entrepreneurs Association (Spain)
Javier Gallego	MOVEX (Leather Technology and Training Centre) (Spain)

Discussion

Industry challenges

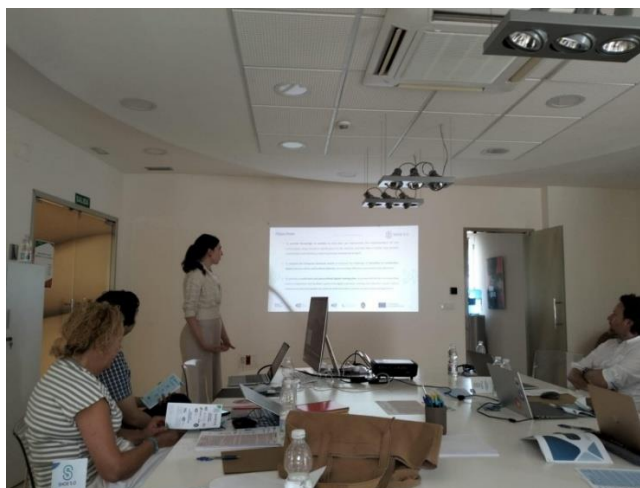
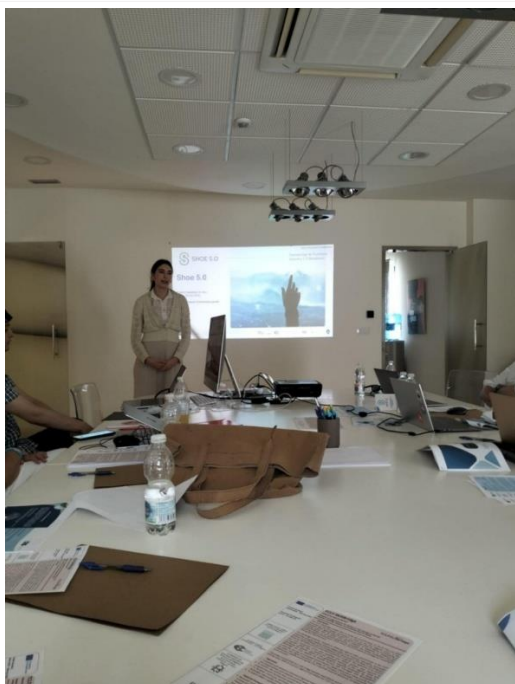
A big challenge in the leather goods sector now is that the expertise and knowledge/ skills of the entire process needed to manufacture a leather bag are disappearing because there are many workers from the older generation who are retiring. Nowadays, workers are specialised in few steps/ processes, but they lack the overview of all operations required.

Industry adapting to growing consumer demand for sustainability and transparency, and training or support for companies

They have noticed an increasing interest from consumers for more sustainable products, and one thing they are working on in Ubrique, Andalucía, in terms of circular design and responsible production is to take advantage of leather waste from factories. In the LIFE+ Eco Leather project and together with a research team from the University of Cádiz, a huge amount of leather waste was analysed to determine what equipment would be needed to handle it.

Interest in Shoe 5.0 training programme in leather goods

Javier Gallego, representative of MOVEX, found the project very interesting and raised the idea of replicating the concept of industry 5.0 to bag manufacturing, including the recovery of materials and other sustainable practices. They identified some of the modules that could already been used at their training centre in Ubrique and will use the trainers' material for the trainers to understand and work on adapting it to the leather goods industry.



Meeting with EURATEX – The European Apparel and Textile Confederation

Date: 2025/10/01

Participants

Name	Organisation
Carmen Arias, Alice Widerberg	The European Footwear Confederation (CEC)
Pedro Gonçalves, Frederick Ryan Wallace	EURATEX – The European Apparel and Textile Confederation

Discussion

Industry challenges

The biggest challenges companies face is to comply with the latest sustainability and circularity criteria, including Ecodesign, but also the social dimension in the traceability of the complex value chain. Many companies are not ready for a circular industry and find difficult to introduce the Digital Product Passport because it requires to track all data, which companies are not ready to share. Being able to implement all the new legislation is a challenge. Many SMEs struggle with the digitalisation and some do not even have their own website. Other challenges include geopolitical changes and the increasing energy prices.

Companies and Industry preparing for Industry 5.0

They are not aware of a similar initiative focused on i5.0 for textiles and clothing.

Critical skills and competencies for company competitiveness

They have big expectations on the Erasmus+ Blueprint projects METASKILLS4TCLF and AEQUALIS4TCLF projects as they will provide updates on industry skills needs and partners are developing educational resources to fulfill the latest needs. EURATEX wishes to work more closely with CEDEFOP in the future to anticipate skills needs. Analysing product data, working with automated machines, transversal skills, the capacity to adapt, and problem solving are some skills they think will become more important for staying competitive.

Automation, AI, and digitalisation impacting your industry in the next 5–10 years and the role of SMEs

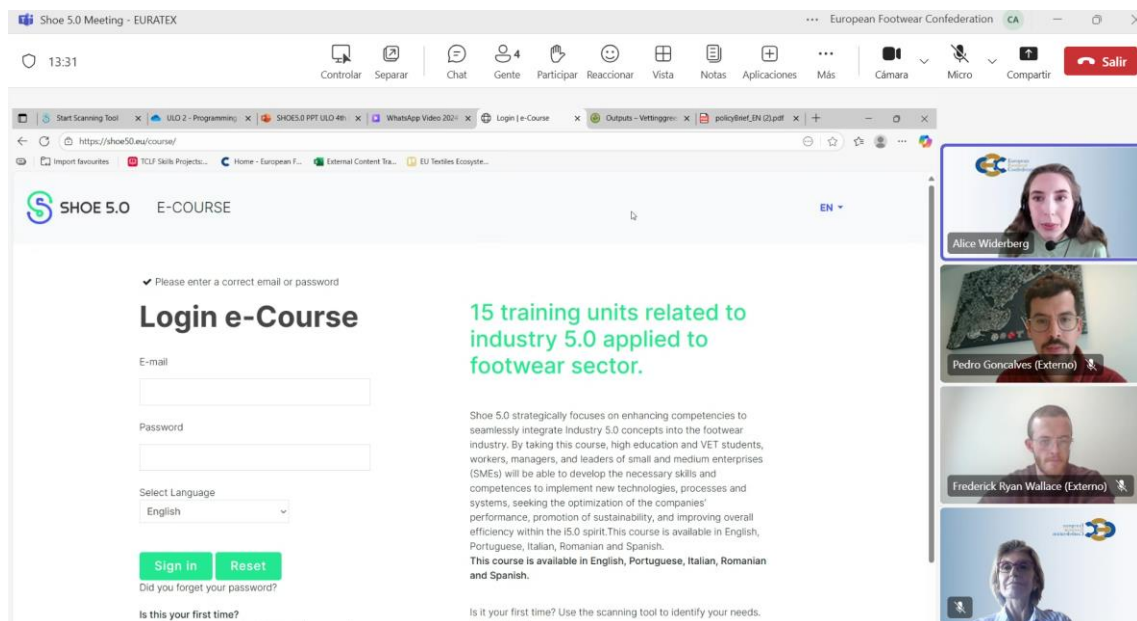
Automation and AI will bring added value, not only inside a company but also in the entire supply chain. New job profiles will be created.

Industry adapting to growing consumer demand for sustainability and transparency, and training or support for companies

Companies need to collaborate with schools and research centres and implement ecodesign, sustainable materials, and recycling.

Interest in Shoe 5.0 training programme in textiles and clothing

Some parts of the training programme are already useful for the textile and clothing industries, such as circular design, AI, implementing Augmented Reality in education, and do not need much adaptation. Others will need to be developed, but with the support of some of the training centers, members of the EU Network of TCLF education providers that have been launched under both Blueprints, it could be easily done. Furthermore, it was agreed to share a text and image with EURATEX to include the information in the TCLF Skills Alliance Newsletter targeted at approximately 300 stakeholders.



Erasmus+ Shoe 5.0 Brings Industry 5.0 to Footwear



The Erasmus+ Shoe 5.0 project brings together seven partners (industry, education, and technology actors) from Portugal, Spain, Romania, Italy, and Belgium to prepare the European **footwear sector** for **Industry 5.0**. The aim: to build a sustainable, human-centric, and resilient industry that creates real added value.

To achieve this, Shoe 5.0 offers a wide range of **free online learning resources** in English, Romanian, Italian, Portuguese, and Spanish. The programme focuses on **five key profiles**: Footwear Technical Manager, Footwear Manufacturing Operator, Footwear Designer/Pattern Maker, Maintenance Technician, and the new *IS.0 Footwear Architect*.

Learners begin with the Shoe 5.0 Scanning Tool, which generates a personalized training plan. **The Training Programme**, hosted on the project website, features 15 modules (100 hours each, EQF level 5–6) enriched with presentations, infographics, and videos. Additional tools include a mobile app with augmented reality games, as well as a dedicated trainer's manual.

Beyond training, Shoe 5.0 also provides studies on how Industry 5.0 applies to footwear, the **future workforce** profiles needed, and customized training approaches.

Section included in the TCLF Skills Alliance Newsletter September 30, 2025

Meeting with FESI – Federation of the European Sporting Goods Industry

Date: 08/10/2025

Participants

Name	Organisation
Carmen Arias, Alice Widerberg	The European Footwear Confederation (CEC)
Jérôme Pero	FESI – Federation of the European Sporting Goods Industry

Discussion

Industry challenges

The biggest industry challenges involve technological shifts, the price of energy, the skills of the employees, companies' difficulties keeping up with the regulatory developments, and the unfair competition for SMEs, which result in some of them declaring bankruptcy. When it comes to education and skills, a big challenge is the lack of engineers with the know-how of making a product with many functionalities, such as being water repellent and having soles with a good grip. It is important to understand that performance and functionality are two of the main characteristics of good sporting equipment.

Companies and Industry preparing for Industry 5.0

FESI is not currently working on Industry 5.0, and so far, they are rather focused on initiatives promoting sports and the sustainability of the sports industry.

Automation, AI, and digitalisation impacting your industry in the next 5–10 years and the role of SMEs

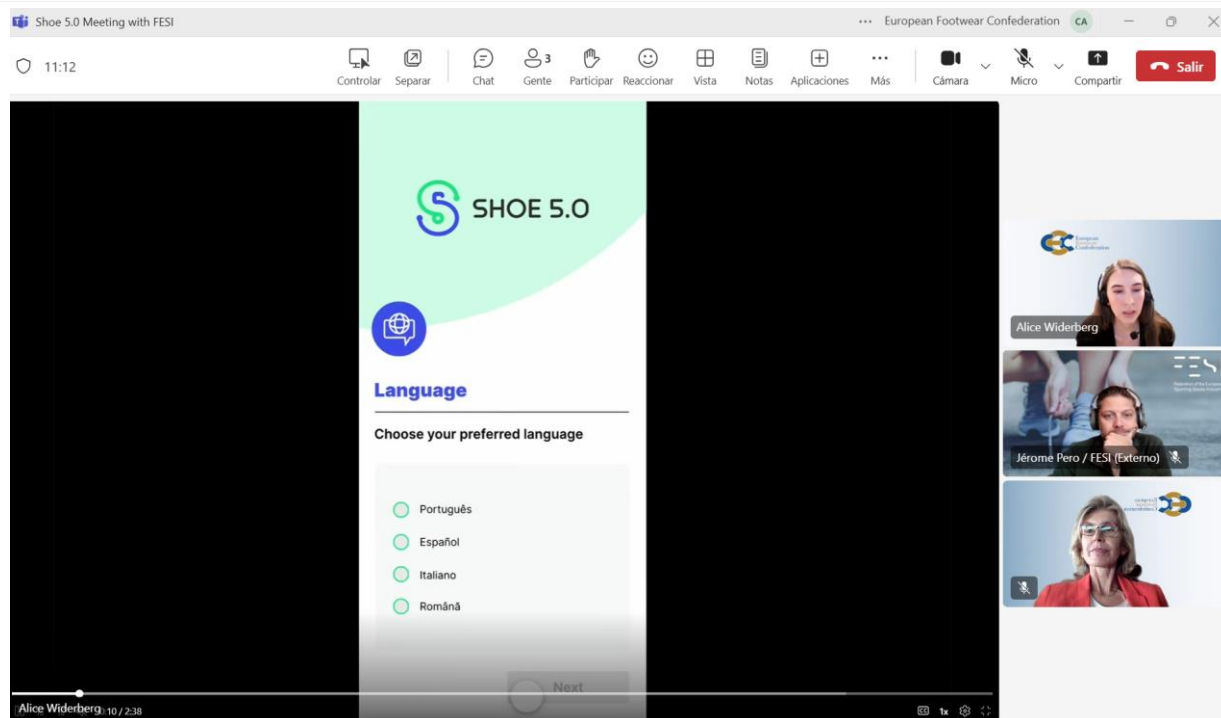
At the scale that the industry is producing, it is impossible to be completely automated. Automation is always mixed with human labour. There is automation in design, marketing, and supply chain management. AI is more for HR, training, and safety.

Industry adapting to growing consumer demand for sustainability and transparency, and training or support for companies

Companies are investing a lot. Different studies on consumer demands say different things. The consumer demands of sustainability are not something seen in practice. The price is the most important aspect, followed by trendiness. In surveys, people think sustainability is important, but it is not followed in practice. In the sporting goods industry, the circularity and durability of products is very important. Chemical recycling can do a lot, but it is expensive and can be polluting. Under the new EU regulatory framework, recycling unsold products is considered destruction, which is an issue for companies who wish to take advantage of their new unused products to recover the materials and then develop new more successful products.

Interest in Shoe 5.0 training programme for the sporting goods industry

National/regional federations, the ALDO footwear group, and the German sporting group industry members could be interested in this project as they are promoting the collaboration between humans and robots. FESI included the Shoe 5.0 project in their newsletter, shared with 350 contacts. They also sent an email to their national/regional federations in case they would want to share it with their members.



- **Physical activity task force meeting:** On 28 October, FESI held its meeting for physical activity task force members ([presentation](#)).
- **European Sport Model:** On 7 October, the European Parliament [adopted](#) the report on "The role of EU policies in shaping the European Sport Model", with the European Commission's [public consultation](#) still open until 8 December.
- **MFF:** FESI [submitted](#) its response to the European Commission's call for feedback on EU's next Multiannual Financial Framework (MFF) proposal, precisely focusing on EU funding under Erasmus+.
- **Move at Work:** FESI's project Move at Work will organise its final conference on 2 December in Brussels ([registration](#)).
- **Erasmus+ projects:** The [VETting Green project](#) published a [policy brief](#) to help companies and consumers identify and prevent greenwashing in footwear and apparel, and the [Shoe 5.0 initiative](#) is uniting partners from across Europe to prepare the sector for Industry 5.0, offering free multilingual training modules and innovative tools.

Shoe 5.0 Published in FESI's Newsletter, shared with 350 contacts

Meeting with industriAll Europe and Unión General de Trabajadores (UGT)

Date: 17/10/2025

Participants

Name	Organisation
Carmen Arias, Alice Widerberg	The European Footwear Confederation (CEC)
Camille Franger	industriAll Europe (EU Federation of trade unions) representing various industrial sectors
Javier Usón Fica	Unión General de Trabajadores (Spanish trade union), representing various industrial sectors

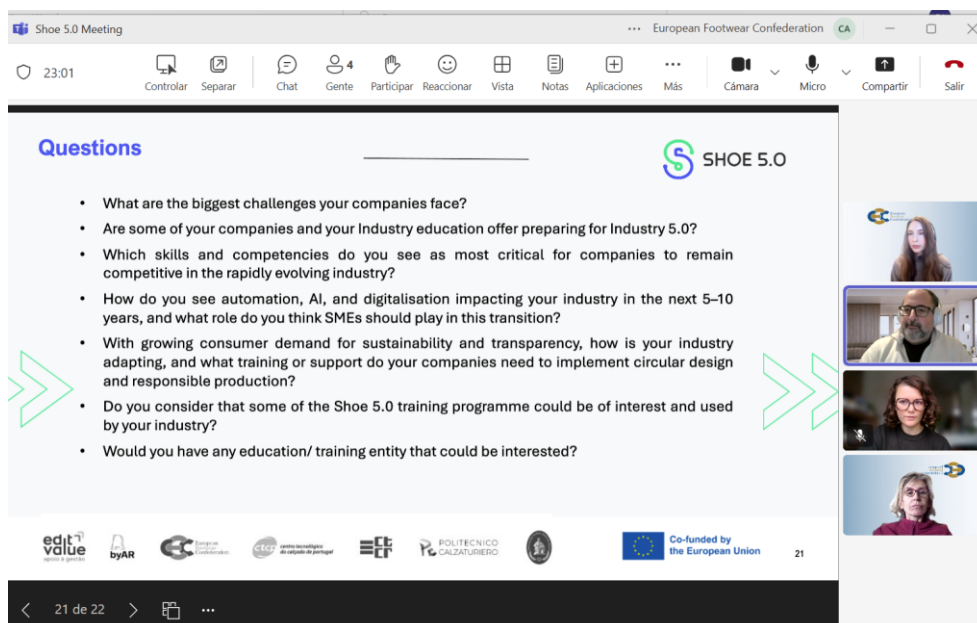
Discussion

Companies and Industry preparing for Industry 5.0

In industryAll Europe, there is a new robotisation network working on the implications of Industry 5.0 in the workforce, but in a general rather than sectoral approach.

Interest in Shoe 5.0 training programme

Javier Usón Fica requested a Shoe 5.0 poster that could be hang up in Spanish shoe factories so that workers can learn about it, independently from the company manager. CEC sent a follow-up email and reached out to the Spanish project partner NOVEX (previously CTCR), who provided a Shoe 5.0 poster in Spanish.

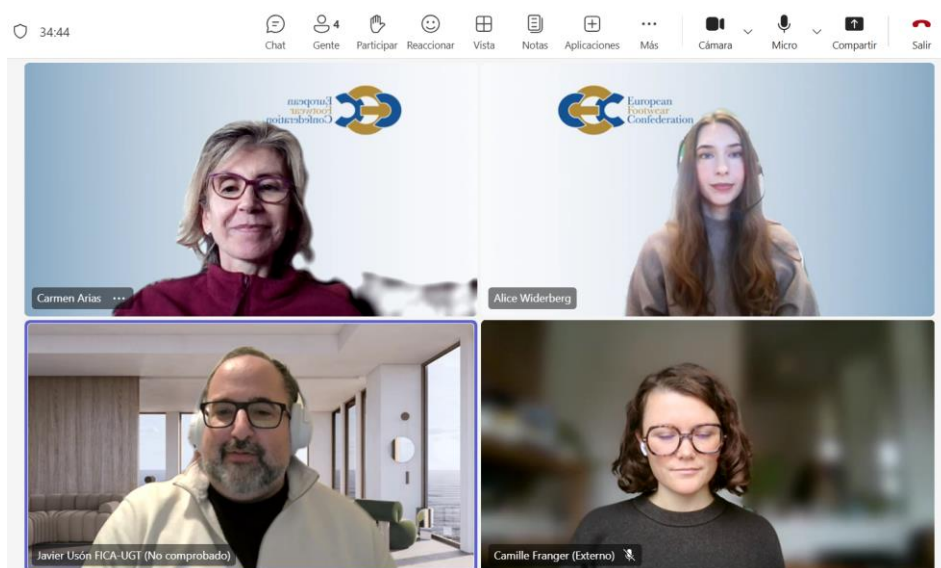


Questions

- What are the biggest challenges your companies face?
- Are some of your companies and your Industry education offer preparing for Industry 5.0?
- Which skills and competencies do you see as most critical for companies to remain competitive in the rapidly evolving industry?
- How do you see automation, AI, and digitalisation impacting your industry in the next 5-10 years, and what role do you think SMEs should play in this transition?
- With growing consumer demand for sustainability and transparency, how is your industry adapting, and what training or support do your companies need to implement circular design and responsible production?
- Do you consider that some of the Shoe 5.0 training programme could be of interest and used by your industry?
- Would you have any education/ training entity that could be interested?

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The Shoe 5.0 poster in a Spanish footwear factory



The Shoe 5.0 poster at AVECAL – The Valencian Association of Footwear Entrepreneurs

Meeting with German Research and Training Institutes

Date: 24/10/2025

Participants

Name	Organisation
Carmen Arias, Alice Widerberg, Viola Rana	The European Footwear Confederation (CEC)
Tatjana Hubel	PFI/ISC Germany – International Shoe Competence Centre Pirmasens (research, testing, certification, and tailored training and education)
Anke Mondschein	FILK Freiberg – Leather Research and Training Institute

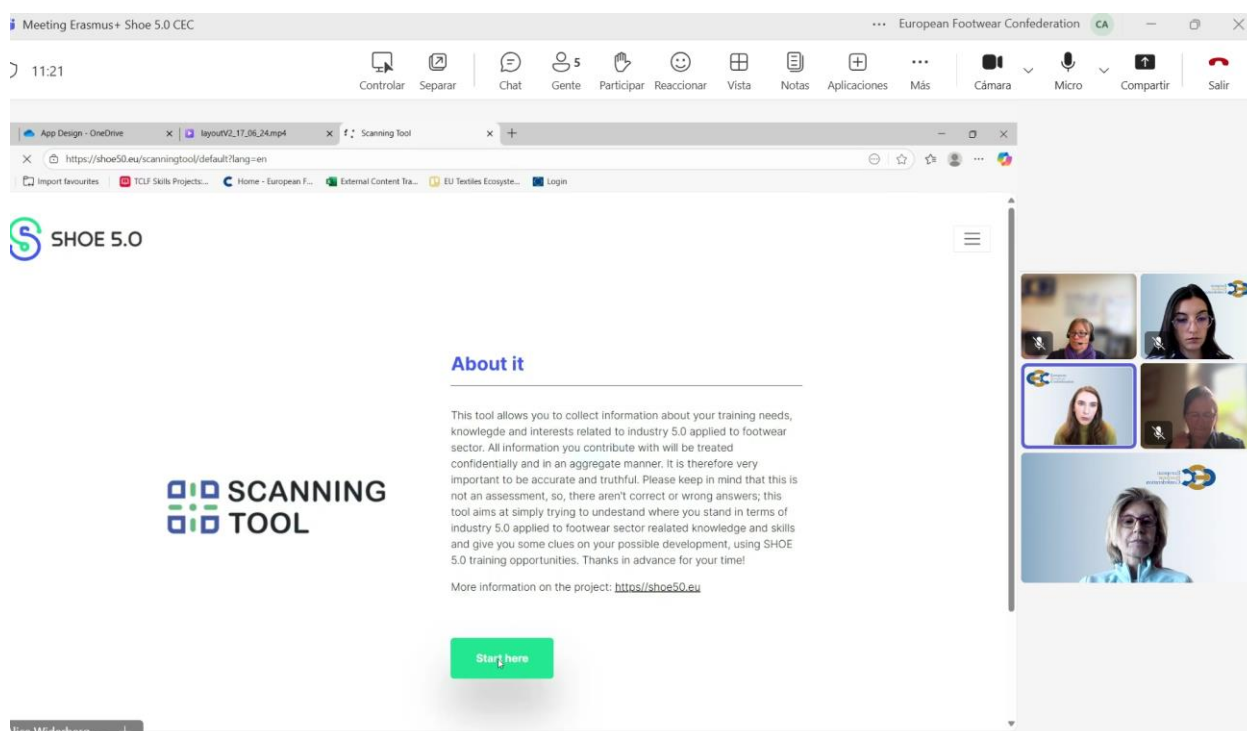
Discussion

Industry challenges

A challenge for PFI/ISC is the lack of students. There is little production left in Germany. AI has impacted white collar jobs in terms of design. So far, it has less impact on blue collars (technicians) and in Germany there is not a lot of these jobs left.

Interest in Shoe 5.0 training programme

They provide training to footwear, leather goods and leather students and workers. The concept of the education programme could be very suitable for them. Two institutions that count with a higher number of students could be interested in the programme and other outcomes: a VET centre for tannery workers and a centre for orthopaedic shoemakers. Mrs. Hubel indicated as well that the ISC Germany would be willing to introduce the training programme and the Shoe 5.0 app in their education and training offer.



Meeting with EFIC – European Furniture Industries Confederation

Date: 31/10/2025

Participants

Name	Organisation
Carmen Arias, Alice Widerberg	The European Footwear Confederation (CEC)
Constance Rossi	EFIC – European Furniture Industries Confederation

Discussion

Companies and Industry preparing for Industry 5.0

The furniture industry has started to assess the implications of Industry 5.0 in their sector. Since May 2024, EFIC has been working together with the EU trade unions on a Social Dialogue project called [FURN 5.0](#) where they provide sector companies practical guidelines and tools to support them to implement their Industry 5.0 transition strategy.

Industry challenges

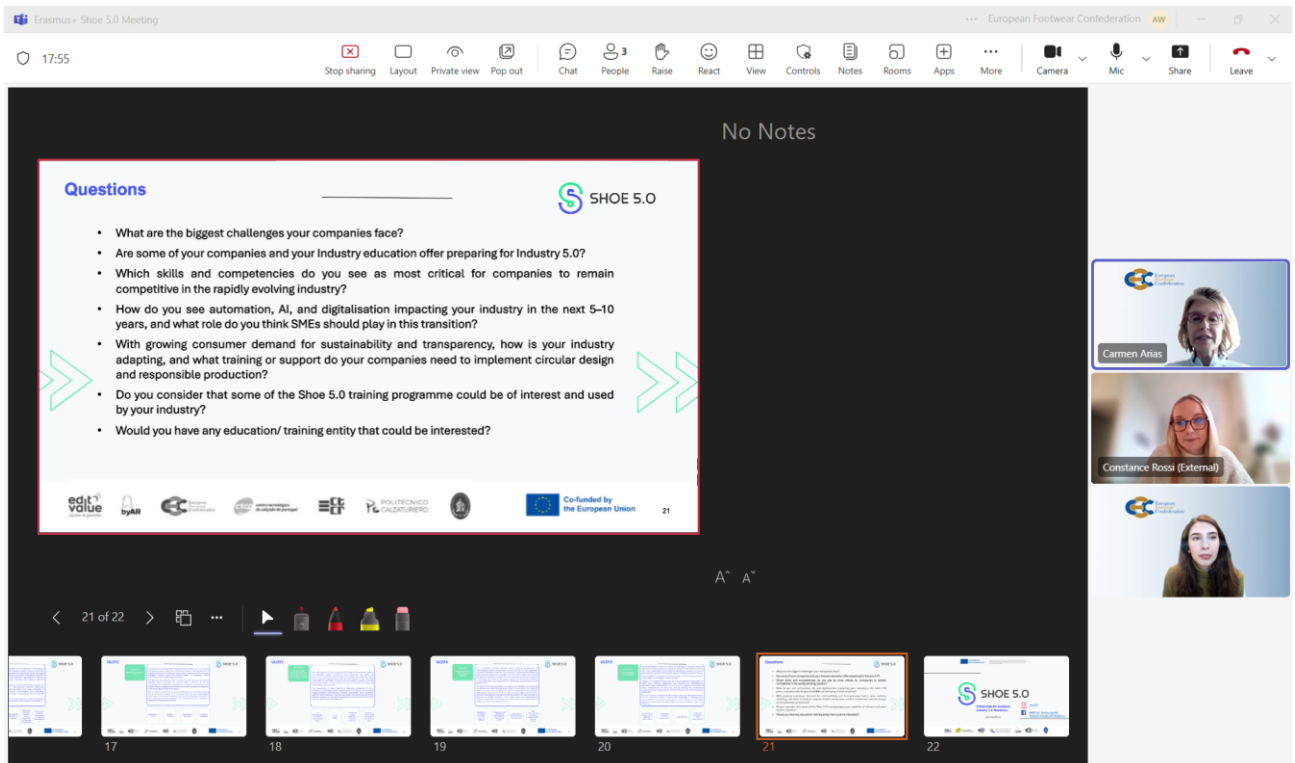
Challenges in the furniture industry include a lack of skilled workers and the difficulty of attracting young people. EFIC has co-signed a joint statement on skills needs in the furniture sector with recommendations for different levels of governance. They do not see the threat of online platforms selling unsafe products so far, although some furniture products are sold and face intellectual property infringement. EFIC informs members and offers training in this regard. Inflation has led to a decline in consumption over the past year, reversing the upward trend seen during and after the pandemic years.

Industry adapting to growing consumer demand for sustainability and transparency, and training or support for companies

They are not in contact with any education providers but have members who are. They work a lot on the transition into a more sustainable and circular industry because of the urgency to adapt to the latest and upcoming EU legislative requirements. Specifically, they are developing ecodesign requirements because furniture is one of the priority products under the Ecodesign for Sustainable Products Regulation.





Automation, AI, and digitalisation impacting your industry in the next 5–10 years and the role of SMEs

The furniture industry has very manual jobs and positions, and machines cannot be used to build an entire chair or couch. For this reason, they are not very concerned with humans being replaced by robots or AI, but they recognise the opportunity to use industry 5.0 and AI for certain processes in the supply chain. It was agreed to exchange banners and links among both the Social Dialogue project and the Erasmus+ Shoe 5.0 in view of the complementarity and potential for replication.



Questions

- What are the biggest challenges your companies face?
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- Which skills and competencies do you see as most critical for companies to remain competitive in the rapidly evolving industry?
- How do you see automation, AI, and digitalisation impacting your industry in the next 5-10 years, and what role do you think SMEs should play in this transition?
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Conclusion

The meetings with the different industry organisations have demonstrated that the Shoe 5.0 training offer sparks interest far beyond footwear and country borders. In 10 meetings, the CEC presented the Shoe 5.0 project to 33 people representing 22 organisations in 9 countries as well as umbrella organisations covering Europe. The sectors beyond footwear which have acquired information on the Shoe 5.0 project results include: textiles and clothing, leather and leather goods, toys, furniture, sporting goods, newspaper publishing, construction, and footwear components.

When discussing with different sectors, it was clear that the industries represented are facing many similar challenges and that Shoe 5.0 can offer something for various industries. The project got promoted through posters in a factory and an industry association in Spain, and two newsletters with international audiences. Further exploitation of the project results is expected to continue after the end of the project.