LEARNING FACTORIES

CREATIVE AND AGILE TRAINING FOR GREEN AND DIGITAL TRANSITION IN THE LEATHER GOODS SECTOR

JULY 2024 - NEWSLETTER - ISSUE 1

IDENTIFYING SKILL NEEDS IN THE LEATHER GOODS INDUSTRY: INSIGHTS FROM LEARNING FACTORIES' FOCUS GROUPS AND SURVEY RESULTS

The leather goods sector, currently employing over 150 000 skilled workers in the European Union, faces two major challenges:

- The insufficient level of qualification of its employees due to the rapid technological change, and
- The lack of attraction and retention of young workers

The necessary skills for students and workers can only be tackled by quickly upgrading the education and training system in line with the latest industry profiles, and with innovative teaching methods, creative content, flexible programmes and learning approaches, that can also contribute to attract and retain newcomers.

Overall objective: Upgrading the training process in the leather goods manufacturing industry by putting companies at the forefront

With the participation of leather goods SMEs, as well as public and private providers of Vocational Education Training (VET), partners will develop training courses to respond to the current and future needs of companies. A new era of agile short-term creative programmes with AI and video based content, both in iVET and cVET, will be developed and piloted with the aim of increasing the attractiveness and retention of employees while preparing them with the skills needed to support the green and digital transition, and increase competitiveness in the leather goods sector.

If you want to learn more about Learning Factories, you can follow our progress on the project website and LinkedIn. Do not hesitate to contact the consortium to learn more about how you can get involved!

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The first issue of the Erasmus+ Learning Factories newsletter presents the results of the Focus Groups; those obtained in a survey to leather goods companies and education providers; an article about why SMEs should report their Environmental, Social and Governance (ESG) performance, and a second one on the opportunities of 3D printing.

Insights from the Focus Groups

From February to April 2024, the Learning Factories consortium organised a focus group in four different countries and one webinar gathering leather goods industry training experts to provide their feedback on the training needs for the validation of the Learning Factories' training curricula, which will prepare employees with the needed skills to support the green and digital transition. The workshops brought together 26 experts from a total of 7 countries including Spain, Romania, Portugal, France, The Netherlands, Italy, and Poland.

The workshops started with an introduction to the Learning Factories, and was followed by a presentation of the Learning Factories' 4 short-term curricula, to which the experts were invited to give their feedback. The contents of the curricula cover the topics of leather goods design for circularity, AI supporting design and pattern making, 3D printing supporting prototyping and tools for industrialisation, and the digital transformation of the added value manufacturing operations.

Training Curricula

Leather Goods Design for circularity

AI supporting design and pattern-making

3D printing supporting prototyping and tools for industrialisation

Digital transformation of the manufacturing operations

The module on leather goods design for circularity will focus on topics such as EU legislation on eco-design, and designing for zero-waste, recycling, sustainability, and re-use. The module on AI supporting design and pattern making will cover topics such as AI tools, 2D pattern engineering, 3D modelling and virtual prototyping, quality control, waste reduction, and CAM technologies. The module on 3D printing supporting prototyping and tools for industrialisation will focus on topics such as additive manufacturing, software for design and virtual prototyping, and industrialisation of 3D printing. The module on digital transformation of added value manufacturing operations will cover topics such as cutting, preparation of parts, stitching, closing and jointing, finishing, machines, technologies, equipment, and digital quality control.

For each short-term curricula, a set of questions regarding its content were posed to invite the participants to give their feedback. The conclusions were that the chosen modules and their topics gave a good overview of the needs of leather goods companies and some additional aspects were suggested to improve their relevance to the current industry needs.

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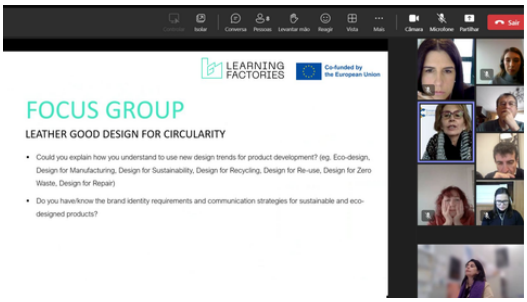
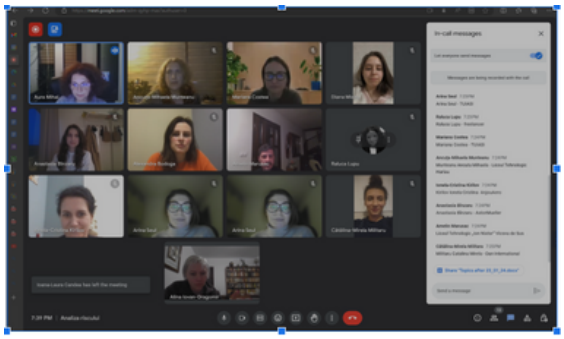
CTCP - Portugal



CEC - Pan-European



TUIASI - Romania

MOVEX - Spain

Insights from the Survey

The online survey gathered responses from 52 professionals working in 48 different companies in the leather goods industry in Portugal, Romania, Spain, Poland, and France, on their companies' readiness to implement digital technologies and their need for new skills and further training.

The most common areas of expertise of the respondents covered manufacturing of leather goods other than footwear (16 people), followed by higher education (8 people), VET education (4 people), design of leather goods (4 people), distribution of leather or leather related products (3 people), and research, development, and innovation (2 people). Furthermore, 15 people had other areas of expertise than those listed.

Definition: "Digital Manufacturing is a manufacturing process which, with the support of technologies such as virtual reality, computer networks, rapid prototyping and database, is based on customer demand so as to analyse, organise and recombine the product information, process information and resource information, implement the product design and function simulation as well as rapid prototyping, and then to perform rapid production to meet customer demand and quality standards." Source: Z. Zhou et al., Fundamentals of Digital Manufacturing Science, Springer Series in Advanced Manufacturing, DOI: 10.1007/978-0-85729-564-4, Springer-Verlag London Limited 2012, pag.6

31 respondents stated that their company was prepared to adopt a digital manufacturing business model, while 20 respondents stated that their company was not prepared to do so.

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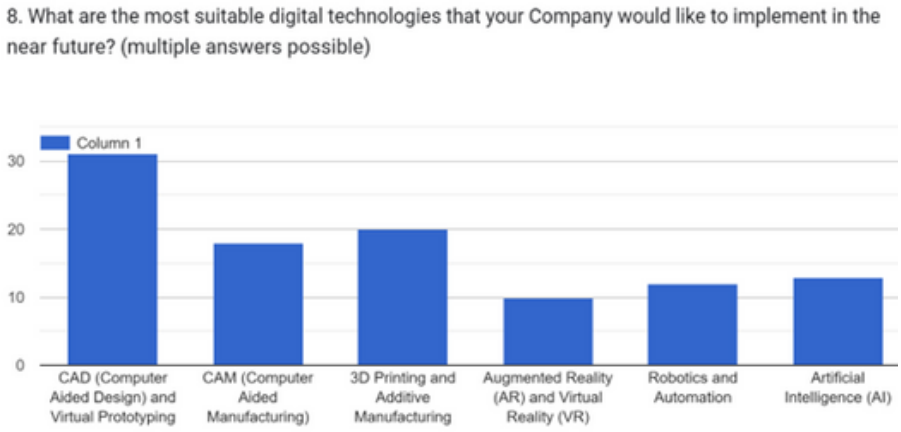
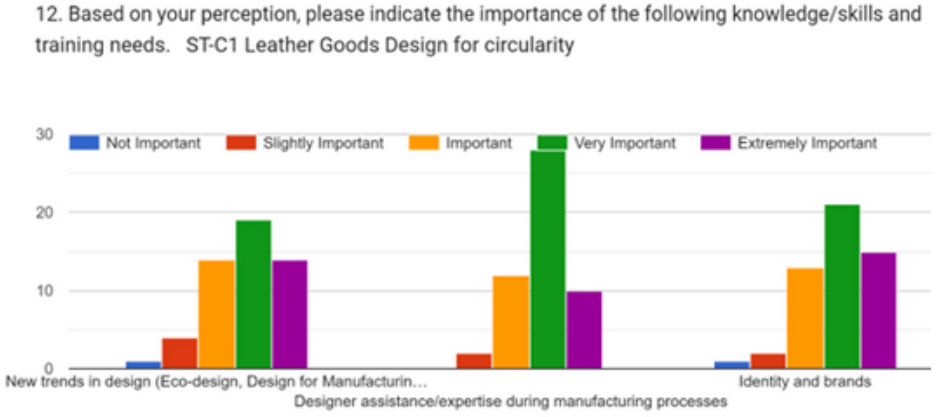


On the question of what digital technologies their companies would like to implement in the future, 31 respondents answered that their company would like to implement CAD and virtual prototyping, followed by 3D printing and additive manufacturing (20 respondents), CAM (18 respondents), AI (13 respondents), robotics and automation (12 respondents), and AR and VR (10 respondents).

In terms of the challenges that the leather goods sector is currently facing, 19 strongly agreed and 23 agreed that the lack of high-skilled personnel was an issue, 14 strongly agreed and 21 agreed that funding and lack of investments was a problem, and 13 strongly agreed and 20 agreed that the high cost of production was also challenging.

When it comes to the importance of knowledge/skills and training needs on leather goods design for circularity, 14 found new trends in design extremely important and 19 found it very important, 10 found designer assistance/expertise during manufacturing processes extremely important and 28 found it very important, and 15 found identity and brands extremely important, while 21 found it very important.



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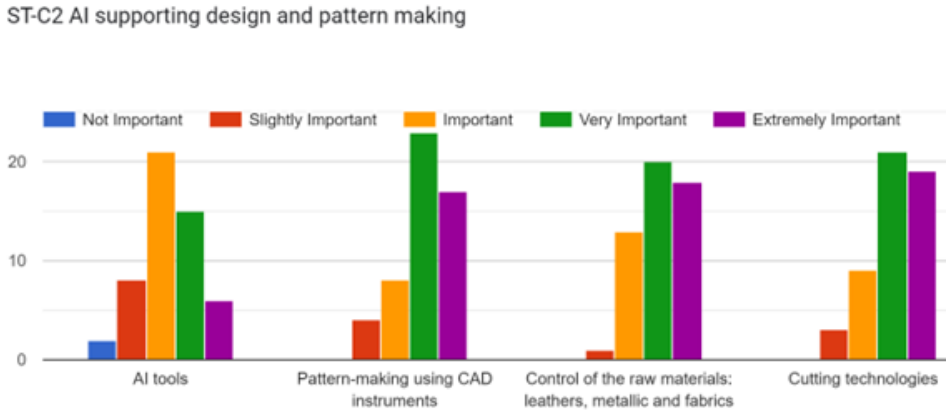
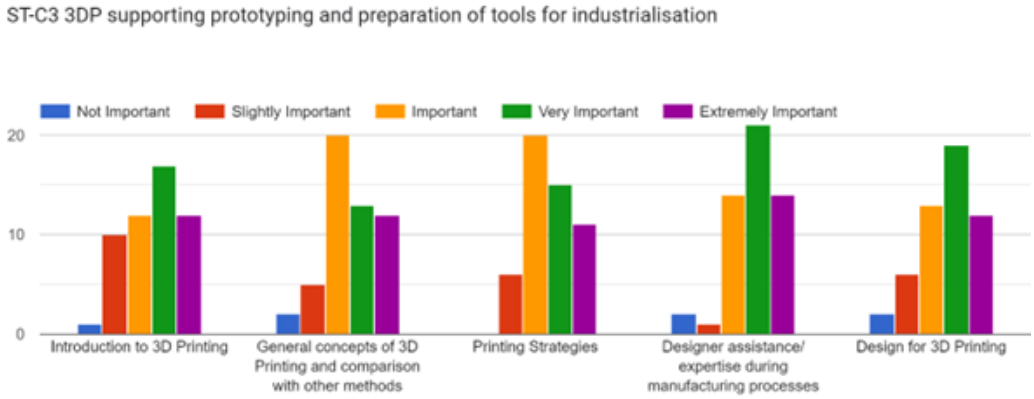
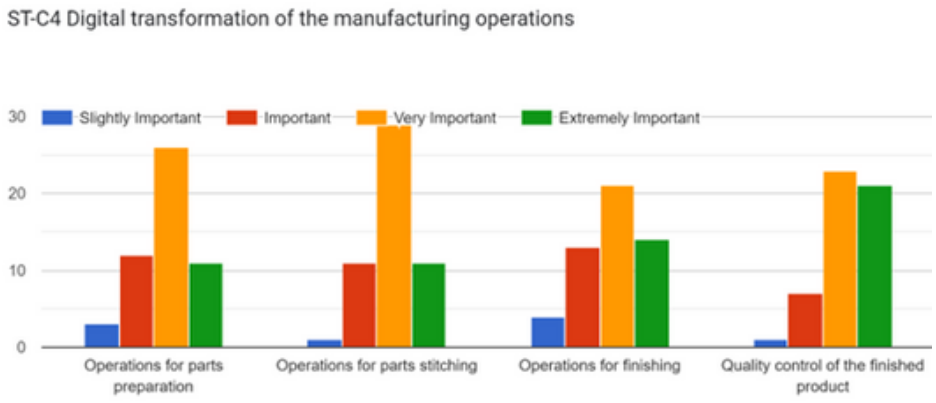
Regarding the importance of knowledge/skills and training needs on AI supporting design and pattern making, 6 found AI tools extremely important while 15 found it very important, 17 found pattern-making using CAD instruments extremely important, while 23 found it very important, 18 found control of raw materials, leathers, and fabrics extremely important, while 20 found it very important, and 19 found cutting technologies extremely important, while 21 found it to be very important.



On the knowledge/skills and training needs on 3D printing supporting prototyping and preparation of tools for industrialisation, 12 found introduction to 3D printing extremely important and 17 found it very important, 12 found general concepts of 3D printing and comparison with other methods extremely important and 13 found it very important, 11 found printing technologies extremely important and 15 found it very important, 14 found designer assistance/expertise during manufacturing processes extremely important and 21 found it very important, and 12 found design for 3D printing extremely important, while 19 found it very important.



In regards to the importance of knowledge/skills and training needs on the digital transformation of the manufacturing operations, 11 found the operations for parts preparation extremely important and 26 found it very important, 11 found operations for parts stitching extremely important and 29 found it very important, 14 found operations for finishing extremely important and 21 found it very important, 21 found quality control of the finished product extremely important and 23 found it very important.



TO FIND OUT MORE ABOUT THE RESULTS, WE INVITE YOU TO READ THE FULL ARTICLE ON THE PROJECT WEBSITE!

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Why should SMEs report their ESG performance?

ESG (Environmental, Social and Governance) Sustainability Reports are documents drawn up by organisations to communicate their practices and performance on environmental, social and governance issues. They complement the Annual Management Reports, allowing interested parties (customers, employees, suppliers, the local community, the state and others) to learn about the organisation's performance from an integrated Environmental, Social and Economic perspective.

Sustainability reporting is not compulsory for SMEs, which are the principal structure of companies in the European leather goods sector. The EU CSRD (Corporate Sustainability Reporting Directive (EU) 2022/2464) came into force on the 5th of January 2023. It will only become compulsory for large companies from 2026 onwards, when they will be obliged to present the Sustainability Report for the year 2025.

So why is it important for SMEs in the leather goods sector to publish a Sus□tainability Report (ESG)?

TO FIND OUT WHY SMES SHOULD REPORT THEIR ESG PERFORMANCE, WE INVITE YOU TO READ THE FULL ARTICLE ON THE PROJECT WEBSITE!

3D Printing: Build the success of your enterprise layer by layer

Additive Manufacturing (AM) is an industrial process that involves slicing an object into thin layers, which fuse together, building it from the bottom up and forming a solid, three-dimensional physical product. The process always begins with designing or acquiring a virtual model of the object to be printed. This can be done by using Computer-Aided Design (CAD) software for new projects, reverse engineering for the alteration of existing models or online repositories for downloading ready-to-use designs. All additive manufacturing technologies operate on the same fundamental principles, even though the methods and materials differ from one factory to another.

TO FIND OUT MORE ABOUT 3D PRINTING, WE INVITE YOU TO READ THE FULL ARTICLE ON THE PROJECT WEBSITE!

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ERASMUS+ Learning Factories

KA220-VET - Cooperation partnerships in vocational education and training

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