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European project partners look for new skills for a more sustainable manufacturing sector



The European industry wants to increase the level of sustainability and innovation in the production and recycling processes. To achieve such purpose, it's essential that designers create products that have in mind some principles of circular economy. Environmental concern begins with product design.

In order to help designers to reach this goal, the partners from the European project “Design4Circle”, co-funded by the European Commission, are working together on the development of training materials, in order to provide designers and SMEs with the necessary competences and skills to implement new practices on eco-design.

“Design4circle” aims at increasing the competitiveness of European SMEs through a circular economy approach.

After doing an analysis of the current best practices and skills needs on eco-design in different countries, partners met in Portugal, last week, to validate the work done and prepare for the next phases of the project implementation.

The consortium is created by research, training and business support organisations, universities and national associations from Latvia, Belgium, North Macedonia, Portugal, Romania, and Spain.

Through the development of innovative eco-design concepts and eco-processes, the project partners pretend to contribute for the creation of new green jobs, especially for designers that follow the new recycling routes and business models towards a circular economy.

During this 3rd meeting, partners also had the opportunity to know what the Portuguese footwear industry has already done in terms of sustainability.

In addition to contacting with materials and projects related to sustainability, they visited two companies (ISI Soles and Carité Footwear), that have already implemented product strategies and an eco-friendly approach, giving rise to a sustainable methodology.

ISI soles

Founded in 1999, I.S.I. – Indústria de Solas Injectadas, Lda., produces 2.8 million pairs of soles annually and has a productive capacity of 4 million pairs per year. It's committed to assure assistance, development, service and quality for a competitive price.

Since the beginning of its activity, ISI adopts sustainable production principles and uses eco-efficiency as a reference for all operations carried out at the factory. Environmental concern begins with product design; it is at this development stage that the sole life cycle is defined, and its environmental impact is mitigated. Designers and technicians select the raw materials, calculate consumptions, define sole dimensions and, thus, they can influence the behavior and environmental performance in the following stages of production, transport, consumption and final deposition.

ISI Soles has acquired certification for its ISO 14001 and ISO 9001 integrated management system and was the first Portuguese footwear soles producer company to be recognized by the best international environmental practices.

During the visit, participants had the opportunity to see how soles are produced out of bio-based TPU - this type of production reduces the consumption of materials derived from fossil sources, as well as reducing CO₂ emissions. They also produce soles out of Biodegradable TPU that meets European standards EN 13432 and EN14995 with soles decomposing at least 90% after 6 months. ISI also developed a Vegan soles line, this collection stands out, on one hand, for not containing any product of animal origin. On the other hand, it was conceived by recycled raw materials through the incorporation of 95% waste from the injection process in the production cycle creating a circular economy.

Carité Footwear

Carité is a footwear company, founded in 1986. Following a strategy that seeks to operate in a high-middle market segment, with high demands on the quality of the materials used and compliance with delivery times, the company has sought through continuous investment in new production, recruitment equipment and technical staff to overcome the main difficulties that arise.

This allowed it to maintain sustained growth in turnover, which exceeded 10 million euros in 2009 and 20 million euros in 2018.

The company has been continuously growing and it's now divided in 5 different companies specialized in different types of productions. The Carité Group headquarters are in Felgueiras, together with Lança Raiz, both these companies are specialized in producing footwear. In São João da Madeira there is Brada, a company specialized in the development and production of high-end lady shoes. The other two companies are located in Celorico (Top Relevo) and Castelo de Paiva (Arka).

Carité has already acquired certification for its ISO 14001 (Environment) and ISO 9001 (quality) integrated management system.

The company adopts sustainable production principles and uses eco-efficiency as a reference for all operations carried out at the factory. In this area, Carité presents *free of Plastic* shoes under the brand TENTOES. <https://www.tentoes.pt/>



Consortium visiting ISI Soles

For more information, visit the project Website: <https://design4circle.eu/>