

The future of the furniture sector: How Cir4Fun is developing the Digital Product Passport



The European furniture industry is facing a major shift in how product lifecycle data is managed and shared. Driven by Europe's transition towards a circular economy and upcoming Digital Product Passport (DPP) requirements under the Ecodesign for Sustainable Products Regulation (ESPR), the EU-funded Cir4Fun project is currently in its mid-project implementation phase, actively developing a specialized Digital Product Passport framework designed to make circularity a practical reality for manufacturers, consumers, and recyclers alike.

At its core, the project views the DPP not merely as a digital label, but as a living digital record that accompanies a piece of furniture throughout its entire lifecycle. The primary objective is to create a secure, transparent system that replaces data fragmentation with reliable and verifiable information on material composition, reparability, durability, and disassembly potential.

To achieve this, Cir4Fun is working on a technological approach that integrates blockchain technology and artificial intelligence. This infrastructure is designed to give every product a secure digital identity. Through this framework, manufacturers will be able to track raw materials from their source, monitor components during use, and provide end-of-life recyclers with the exact technical specifications needed to safely process materials.

By addressing the traditional information gap in the supply chain, the initiative aims to bridge the divide between linear manufacturing and a resilient circular economy. The ongoing research and development focus heavily on ensuring that these upcoming digital tools are intuitive and scalable, allowing businesses to meet evolving European regulatory standards while safeguarding commercially sensitive information.

As development continues, the consortium is refining the underlying models to ensure they align seamlessly with the daily realities of the furniture market.

Further information regarding the project objectives and progress is available on the official [Cir4Fun website](#).

About Cir4Fun

Cir4Fun is a three-year initiative funded by the European Commission under the Horizon Europe program. The project's consortium is formed by 22 partners from 10 European countries (Spain, Portugal, Denmark, Greece, Germany, France, Ireland, Italy, Switzerland and the United Kingdom).

This project aims to create a sustainable future for the European furniture sector by enhancing eco-design, fostering new business models, and implementing cutting-edge circular economy solutions. These measures will support simulation testing, which will inform supply chain strategies and help extend the lifespan of furniture products.



<https://www.linkedin.com/company/cir4fun>



<https://www.youtube.com/@cir4fun>

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