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Cir4Fun – accelerating the transition to a circular economy in the furniture sector.

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Cir4Fun in a nutshell

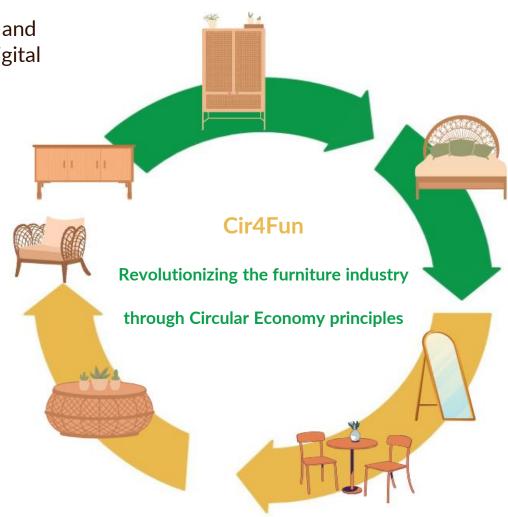
 Cir4Fun - Advancing European Industrial Sustainability and Competitiveness through <u>Cir</u>cular Design Strategies, Digital Product Passports, and Sustainable Product-Service Systems in the <u>Furniture</u> Sector

Duration: 36 months

1st January 2025 - 31st December 2027

Coordinator:

Instituto Tecnológico Metalmecánico, Mueble, Madera, Embalaje y Afines-AIDIMME (AID)



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The Consortium

- 10 European countries
- 22 partners
- 6 Technical Research Centers (AIDIMME, CERTH, UNINOVA, FHG, CEA, CVR-Center for Waste Valorisation)
- 3 universities (Politecnico di Milano, Copenhagen Business School, SUPSI)
- 6 furniture companies/industries (SONAE ARAUCO, MICUNA, OPEN DOT, POZZI Arturo, SARA, KAVE HOME)
- 1 ICT SME (Xigility)
- **2 citizen representatives** (EKP CSO, Guimaraes municipality)
- 1 manufacturers' federation (FEVAMA)
- 1 Waste Manager (ELDIA)
- 2 D&C (F6S) & E (I4BYDESIGN)





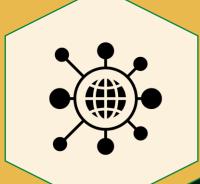
The aim:

Circularity in furniture

- Adopting EcoDesign for Sustainable Products (ESPR)
- Implementing Future Furniture Standards
- Utilising EcoDesign & Digital Product Passport (DPP)
- Fostering Circular Business Innovation

Key pillars

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DATA-DRIVEN SOLUTIONS Secure data exchange across the furniture value chain through a Furniture Data Space

Guidelines and
Furniture
Assessment System
(FAS) for EcoDesign
implementation

SUPPORTING FURNITURE COMPANIES





STAKEHOLDER ENGAGEMENT & COMMUNI-CATION Collaboration for circular business models and EcoDesign, empowering stakeholders through communication

How?



Circular Business Models	 Safe and efficient material use including closing the loop (recycling) Lifespan extension strategies for domestic and collective use furniture Re-use and Re-manufacturing
EcoDesign Management System	Introducing a system based on guidelines and a holistic Furniture Assessment System (FAS)
Furniture Data Space & Technologies	Enabling trusted and interoperable data exchange
Track & Trace Techniques	Using Smart Contracts for Safe and Trustworthy Industrial Agreements
Digital Product Passport	Facilitating information exchange along the value chain
Downstream Stakeholder Engagement	Engaging retailers, repair centers, second-hand markets, waste managers, citizens, and municipalities to achieve informed green purchasing and lifecycle extension
Harmonized Framework	Developing circular solutions in the furniture domain, providing technical support, and demonstrating in 3 uses cases through 12 pilots.
Supporting Standardisation and Policy	Contributing to standardisation efforts and policy development

Use Cases

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Use Case 1 Furniture production and recycling

EcoDesign for safe and sustainable raw material efficiency: sustainable origin, recycled content and recyclability, substances of concern reduction...

Engagement of supply chain industrial stakeholders and waste managers.



Use Case 2

Domestic furniture market

Ecodesign and Circular business models focused on reliability, reparability and reuse strategies

Social Engagement (consumer and local entities)

Use Case 3 Contract furniture market

Ecodesign and Circular business models focused on Furniture as a service (FaaS) and remanufacturing strategies.

Engagement with institutional stakeholders.

Planning & Expected Outcomes



- Define requirements & reference architecture
- Develop furniture roadmap

- Circular business
 Models & EcoDesign
 methods
- DPP, Furniture Data Spaces, Furniture Assessment System, Ai-based tools & Applications
- Use case planning

- System integration & deployment
- Use case implementation & validation

- Develop guidelines & training
- Contribute to policy & standardization

M 1 - M 18

M 1 - M 3 6

M6-M36

M 1 - M 3 6

Planning & Expected Outcomes



OUTCOMES

- EcoDesign Guidelines & Al-support
- Business Model tool
- Furniture Assessment and Eco-score Systems
- Furniture DPP content & User Application
- Furniture data space
- Track & trace applications
- Training material
- New EcoDesigned recyclable furniture
- Remanufactured furniture

EXPECTED IMPROVEMENTS

- Increased Data Available along value chain
- Environmental Improvements (substances of concern, carbon footprint and waste reduction, increased use of renewable and secondary materials, etc.)
- Furniture life spam extension in circular business models
- Increase furniture sector competitiveness& sustainability
- Increased citizen & stakeholder engagement



ESPR for furniture (ecodesign requirements and DPP): threats & opportunities?

DPP for furniture: which should be the mandatory content?

DPP for furniture: has sense to include dynamic data (to register modifications during use phase)?

ESPR working plan: will we be ready in 2028?

Ecodesign for Sustainable Products and Energy Labelling Working Plan 2025-2030 stablished the indicative timeline for furniture adoption in 2028



We would like to have your feedback.

In brief there will be available at our website a short questionnaire to collect the input from the different value chain stakeholders.

https://cir4fun.eu/





Thank you for your attention!!



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