

Digital Product Passport in the textile and floor covering industry

– the impact on circular economy and the role of standardization

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Textiles and floor coverings

Products covered

Textiles (and textile products)



Agrotech



Homotech



Oekotech



Buildtech



Indutech



Packtech



Clothtech



Medtech



Protech



Geotech



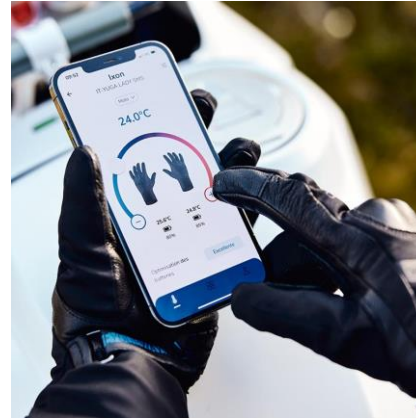
Mobiltech



Sporttech



<https://www.toolstation.be/big-bag-mini/p64532>



<https://myclim8.com/tech/>



<https://www.textiletoday.com.bd/agro-textiles-can-great-solution-various-problems-agro-industry>



<https://www.ikea.com/be/en/p/vimle-3-seat-sofa-gunnared-medium-grey-s79399030/>

<https://techtexil.messefrankfurt.com/frankfurt/en/profile.html#application>

Floor coverings

Considered a construction product if foreseen for wall-to-wall covering (full width, tiles, planks)

Materials considered here:

- Textile*
- Resilient
- Laminate
- Multilayer modular



<https://www.unilin.com/en/flooring>



https://www.balta-carpets.com/en/Products/Balta_carpets/Collections/Woolmaster_by_balta/

* Rugs and runners are considered a textile product and not a construction product.



Legal provisions

Status June 2024

Textiles

Ecodesign for Sustainable Products Regulation

The new “Digital Product Passport” will **provide information about products’ environmental sustainability**. This information will be **easily accessible** by scanning a data carrier and it will include attributes such as the **durability and reparability, the recycled content or the availability of spare parts of a product**. It should help consumers and businesses **make informed choices** when purchasing products, **facilitate repairs and recycling** and **improve transparency** about products’ **life cycle impacts** on the environment. The product passport should also **help public authorities to better perform checks and controls**.

https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation_en

Floor covering products

Revised Construction Products Regulation

(Council of the European Union, document 5762/1/24 REV 1)

Construction Digital Product Passport

21. On the digital product passport, the provisions have been aligned to the Digital Product Passport in the Ecodesign proposal (Ecodesign for Sustainable Products Regulation), while also **considering the particularities associated with construction-related needs**. The compromise text empowers the Commission to adopt Delegated Acts in order to lay down the future functionalities, actors, procedures and requirements and provides enough time to ensure that the system works properly and all the actors have time to adapt before making its use mandatory.

<https://data.consilium.europa.eu/doc/document/ST-5762-2024-REV-1/en/pdf>

Construction products will need a Declaration of Performance, a Declaration of Conformity and a DPP => the plan is to merge all into one.



Approaches in research projects

Some examples

Support to the different parts of the DPP infrastructure

Part I: the DPP system

- Registry
- Portal
- IT architecture

Part II: the DPP data

- Product specific
- Exact content to be specified by delegated acts, could include
 - Technical performance and other product related information (labels, manuals)
 - Environmental performance
 - Circularity aspects
 - Legal compliance

Management of the DPP data

Three Possible scenarios are currently envisioned

1. Centralised database, managed by the EC
2. DPP licenced service providers
3. Manufacturers databases/ websites with a backup system to keep the data available in case the manufacturer discontinues their operation

For construction products one is evaluating using 2 or 3 or a mix of both.

For textiles the most likely scenario is considered to be 3.

=> Research projects have been initiated to propose, evaluate and develop possible solutions for the scenarios, especially focussing on 2 and 3.

Concept

- Use of innovative tracking, sensing and sorting techniques **to develop a transparent and interoperable decentralised traceability platform.**
- **Dynamically updated DPP schemes** supporting certification, quality validation, AI-based decision-making mechanisms for process and life cycle optimisation, and up-cycling, reuse and upgrade technologies for improved secondary raw materials use.

DigInTraCE will concentrate on composite wood and furniture, wood and pulp and paper, plastic parts from ICT equipment and the automotive market, and polymers and textiles.

Remark: while dynamic DPP schemes are of interest to an evolving market they are problematic towards legal certainty which the EC and member states require.

<https://www.digintrace.eu/>

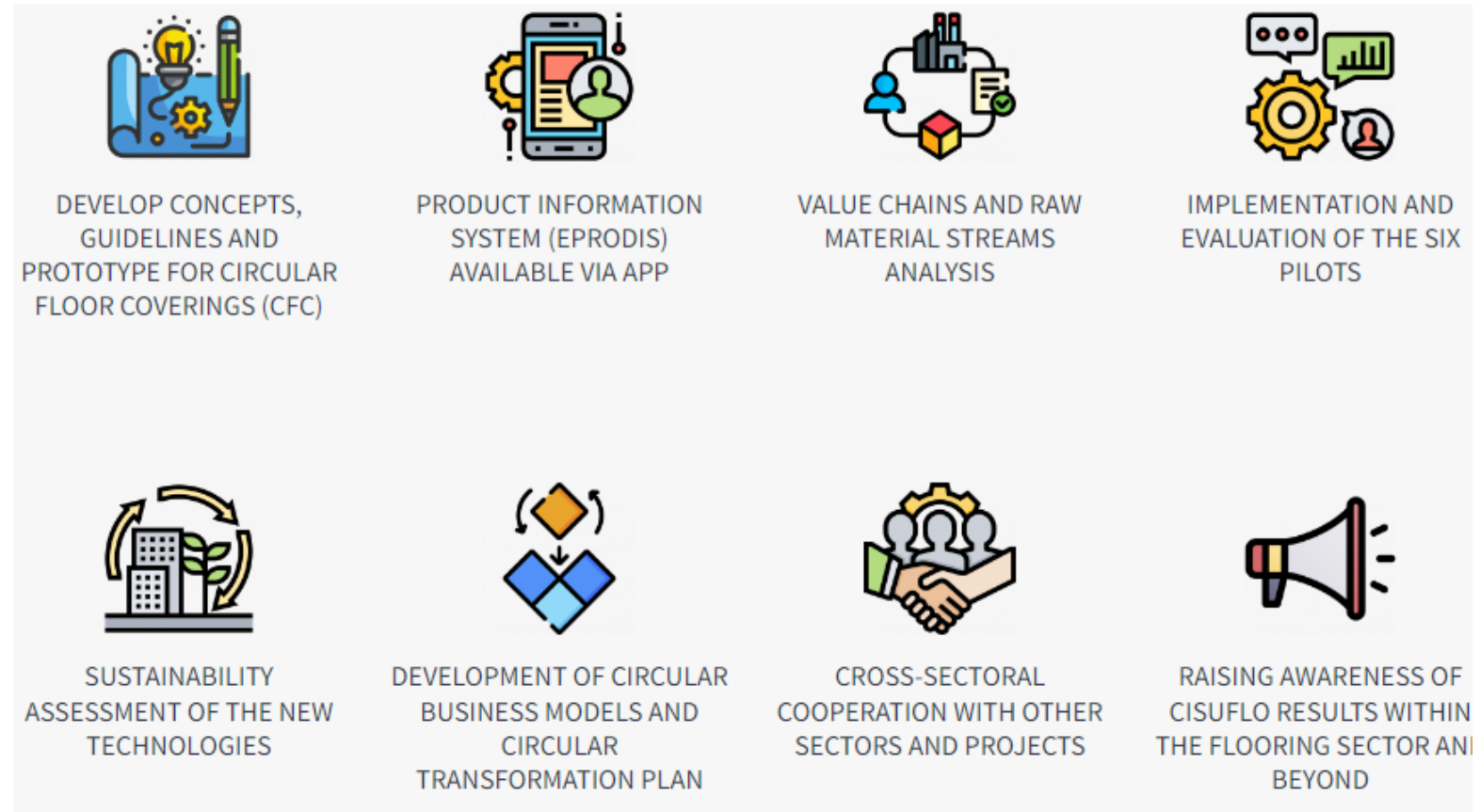
- Development of a Blueprint, a knowledge-based masterplan for the optimized cycling for different textile flows, which will define the implementation of a circular textile ecosystem including reduction of waste, extended reuse of textile products and efficient material recycling of end-of-life textiles.
- Development of a wide range of **digital and technological solutions enabling the replicability** of the tExtended solutions in different European regions, especially business opportunities emerging from circular systems and innovations that are environmentally and socially sustainable.

Remark: the project will also support and developing testing and evaluation criteria for assessing the circularity of textile products.

<https://textended.eu/about/>

Minimize the environmental impact of the EU flooring sector, by setting up a **systemic framework for circular and sustainable floor coverings** taking into account both technical feasibility and socio-economic factors.

<https://www.cisuflo.eu/>



ePRODIS is an **integrated product information system**, fundamental to circularity. New Circular Floor Coverings (CFC) prototypes will have an **electronic product passport** in the form of a tag on the product, which will be linked to the ePRODIS data base.

Cisutac

CISUTAC



Enabling technologies for circular textiles by using advanced digital solutions



Developing the capacity and digital infrastructure for circular textiles



Increasing sorting capacity and secure value retention with affordable tools and means



Understanding the sector and consumers, and promoting the benefits of circular textiles



Encouraging circular behaviour of textiles among the sector



Inspiring and motivating customers



Piloting 'circular textiles' via selected pilots



Assisting the sectoral in the transition towards circular economy



Assessing the benefits of sustainability in the sector



Communicating about the implementation of CIUSTAC's business plans



Delivering hands-on training on the use of repair & dismantling stations



Applying repair & dismantling services in local reuse shops



Standards development

Textiles

CEN TC248 Textiles and textile products – WG39 Circular Economy for textile products and the textile chain

ISO TC38 Textiles – WG35 Environmental aspects

One commonly published standard

- EN ISO 5157:2023 Textiles - Environmental aspects - Vocabulary (ISO 5157:2023)

Current work program (CEN)

- Textiles — Circular economy for textile products — General principles and guidance
- Textiles – Circular economy for textile products – Minimum requirements for clothing
- Textiles — Circular economy for textile products — Categorisation of and requirements on non-virgin input materials
- Textiles — Circular economy for textile products — Design for circularity

Floor coverings

CEN TC134 Resilient, textile, laminate and modular mechanical locked floor coverings WG10 Harmonization

Publications (related to Circular economy and DPP)

- EN 17861:2023 Resilient, textile, laminate and modular mechanical locked floor coverings - Circular Economy - Terms and definitions

Current work program (related to Circular economy and DPP)

- FprCEN/TS 18075 Resilient, textile, laminate and modular mechanical locked floor coverings - Circular economy and sustainability - Recommendations/guidelines for design
- Resilient, textile, laminate and modular mechanical locked floor coverings —Circular Economy— Floor coverings and underlays passport

Cooperation standardization and research

Project liaison

- Direct and official link between a CEN or ISO TC and a research project
- The project can send a representative to participate in the work and is asked to provide an update on the project at meetings.
- Documents can be exchanged between the project and the committee under the terms of the liaison agreement.

National experts as project partners

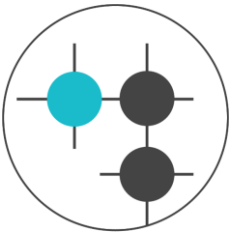
- Experts from a research project participating as experts nominated by a national standardisation body (CEN or ISO member) to a working group of a CEN TC.
- National experts participate in the work and can also provide an update on the project at meetings.
- As there is no direct link between the project and the committee, documents can only be exchanged upon mutual agreement.

Example Cisuflo

- A liaison was established with CEN TC134 at the beginning of the project
 - Several project partners participate as experts in different working groups and especially in WG10.
 - The project reports at the yearly TC meetings and relevant project results are presented.
 - Standards under development relevant to the project are presented to the relevant project meetings.
- ⇒ There is a well structured and maintained exchange between the research project and the standardization committee.
- ⇒ There is knowledge about standardization and European legislation (including ongoing developments) present in the research consortium.
- ⇒ The conditions are positive that there will be project results which will not only support the development of future EU legislation but also the industry to comply with it.

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