



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003893

Circular Sustainable FLOor coverings

Grant Agreement number: 101003893



D7.9 Policy Brief - final

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Contractual delivery date:	31/05/2025
Actual delivery date:	23/05/2025
Version:	1.0
Dissemination level¹:	PU

¹ PU: Public

RE: Restricted to a group specified by the consortium

CO: Confidential, only for members of the consortium; Commission services always included

Document history

Version	Date	Change	Author
V0.1	30/04/2025	Initial version	EuFCA
V0.2	09/05/2025	First review	CTB
V0.3	19/05/2025	Amended version	EuFCA
V1.0	23/05/2025	Final version	EuFCA

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Abbreviations

CD	Deliverable
CDW	Construction and Demolition Waste
CEAP	European Commission's Circular Economy Action Plan
CEA	European Commission's Circular Economy Act
CID	Clean Industrial Deal
CFC	Circular Floor Coverings
CPR	Construction Products Regulation
DPP	Digital Product Passport
DRS	Deposit-Return-System
EoW	End-of-waste
EPR	Extended Producer Responsibility
ESPR	Ecodesign for Sustainable Products Initiative
LCA	Life Cycle Assessment
LCC	Life Cycle Costing
PEF	Product Environmental Footprint
PFAS	Per- and polyfluoroalkyl substances
POPs	Persistent Organic Pollutants
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
s-LCA	Social Life Cycle Assessment
TRL	Technology Readiness Levels
WFD	Waste Framework Directive

1 Introduction

The goal of the following policy brief is to provide EU policymakers with insights from the CISUFLO project, funded by the Horizon 2020 Research and Innovation Programme. The current policy recommendations serve as one of the key results of the project and are the fruit of over two years of work and consultations with flooring industry experts. The input from the industry has been gathered through a first round of interviews in 2023, before the drafting of the preliminary policy recommendations, and secondly through a questionnaire submitted to over 500 stakeholders, including manufactures of each different type of flooring and relevant trade associations. This brief provides insights on the factors that are currently either facilitating or impeding the sector's transition, respectively referred to as "drivers" and "barriers". Through the analysis of these factors, this brief aims at facilitating the development of more effective policies to allow the EU flooring industry to transition towards more sustainable and circular practices and to foster the achievement of an overall circular economy.

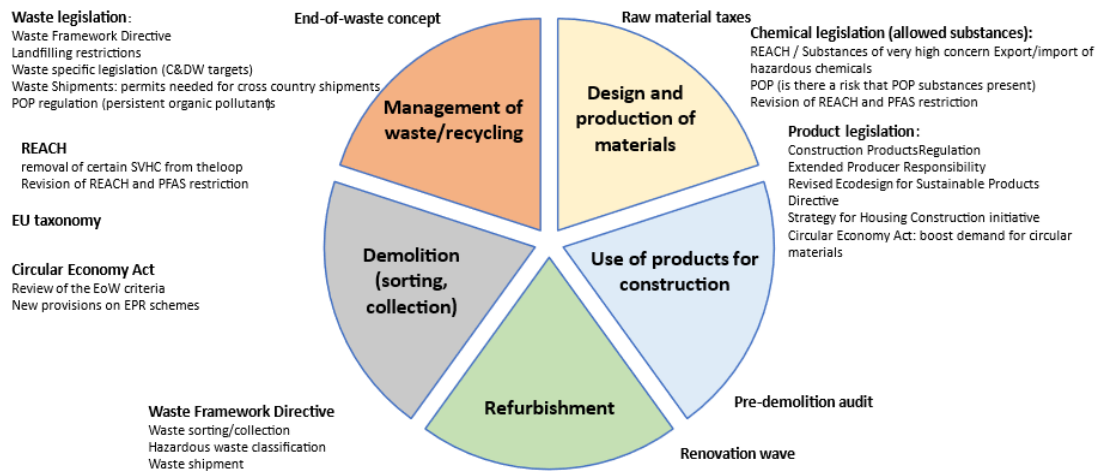
The primary objective of the CISUFLO project is to establish a systemic framework for sustainable and circular flooring in the EU, with the goal of reducing the sector's overall environmental impact, taking into account technical feasibility and socio-economic factors. The project mainly covers textile floor coverings or 'carpet', resilient floor coverings and luxury vinyl tiles or 'vinyl', and laminates or 'wood'. The proposed framework aims to align all aspects of the value chain to maximize the retention of value for the entire system and entails actions on a wide array of specific objectives. These include the definition of (1) clear guidelines on "Circular Floor Coverings", (2) the development of a Digital Product Passport to trace materials and products all along the value chain, and (3) the implementation of six pilot projects to demonstrate the potential of circular flooring.

Circular economy is at the core of the European industrial transition. It is naturally a priority for the flooring sector. The recently published [Clean Industrial Deal \(CID\)](#) puts forward a proposal for a **Circular Economy Act (CEA)**, which will help stimulating the demand for circular products and the creation of an EU single market for secondary materials, while lowering their cost. As part of the transition, traceability of recyclates through the supply chain will remain of key importance. In this context, the CISUFLO project is aligned with the priorities of the Clean Industrial Deal by working towards a circular economy in the flooring industry.

Moreover, several existing legislative texts or upcoming proposals, both at the EU and national level, can support in streamlining the adoption of circular practices by the European flooring sector. The provisions contained in, for instance, the revised **Construction Products Regulation (CPR)**, the **Ecodesign for Sustainable Products Regulation (ESPR)**, the **proposed revision of the REACH Regulation**, as well as the **Waste Framework Directive (WFD)**, have the potential to provide flooring manufacturers in the EU with further clarity when it comes to the inclusion of circular practices in the whole value chain, starting from the construction products' design and use phases, until waste management and refurbishment. However, it will be fundamental that new policies, notably the Circular Economy Act, and upcoming standards on circularity properly address the specific challenges faced by the European flooring sector, in order to streamline the development of circular floor coverings.

Source: VTT, 2023

Examples of regulations



2 Overview of CISUFLO specific objectives

The overall objective of the CISUFLO project is the **establishment of a systemic and effective framework for sustainable and circular flooring in the EU**. Such a framework will aim at minimizing the environmental impact of the floorcovering sector, while considering both the technical feasibility of the proposed measures and socio-economic factors. In this context, the project pursues eight specific objectives:

1. The development of the concept and **guidelines for “Circular Floor Coverings” (CFC)**. These should define elements such as design for circularity, durable and sustainable materials, and the use of the latest (digital) manufacturing technologies.
2. **Setting up the ePRODIS system**, an extended product information system for the tracing of materials and products along the whole value chain. The system would also be made available through an app and aims at allowing linking physical CFC products through hardware tagging.
3. The definition and evaluation of **“circular business models”** and their socio-ethical impact. These would translate into an extensive mapping and modelling of value chains and materials streams and novel circular business models, paired with an economic and socio-technical impact assessment of these models.
4. A demonstration of “circular flooring” through **six pilot projects** at well-chosen steps along the circular value chain and at full circular level. The pilots cover several phases of the **floorcovering value chain** and propose innovative solutions for the manufacturing of circular CFC (Pilot 1), the identification and sorting of flooring waste (Pilot 2), the separation of materials and removal of legacy additives (Pilot 3), and the recycling of laminate, vinyl, and textile flooring (Pilots 4, 5, 6). The CISUFLO projects aims at implementing all the pilots in order to achieve technology readiness levels (TRL) 6-7² (Technology Demonstration) and finally evaluating the pilots.
5. The **sustainability assessment of new technologies** for the floor covering sector. These assessments include Life Cycle Assessments (LCA), Life Cycle Costing (LCC), social Life Cycle Assessments (s-LCA) and circularity assessments, with a particular focus on Pilots 4, 5, and 6.
6. The definition of **large-scale circular business models for the floorcovering industry**, together with a **circular flooring transformation plan**, which would entail the set-up of trusted value chains and incentives schemes for the flooring industry. The plan would be delivered through an interactive systemic transformation tool, rolled out through tech transfer and industry workshops.
7. Enhancing **cooperation and the transfer of technical findings** between producers of different types of flooring and of other sectors (e.g. furniture, construction, plastics). This should lead to the development of circular economy cross-sector models, common training material, and to the roll out of certification schemes and further policy input by the flooring industry and facilitate standardization.
8. **Increase awareness** of the results of the project within the flooring sector and beyond. This would also translate into tailored business plans for companies adhering to CISUFLO.

² The Technology Readiness Level (TRL) is a standardized method to assess the maturity of a new technology. Levels 6 and 7 refer to the demonstration phase, meaning the testing of a new technology before it can be deployed on a commercial scale.

3 Legislative and policy Framework

Several EU legislative files and proposals and policy initiatives will shape the transition to circular floorcovering throughout the new Commission mandate. Notably, several EU legislative initiatives announced in the 2020 Circular Economy Action Plan (CEAP), such as the revisions of the Waste Framework Directive (WFD), the Construction Products Regulation (CPR), and the Ecodesign for Sustainable Products Regulation (ESPR) have now entered into force and contain provisions affecting the floorcoverings industry. Moreover, national laws will play a key role for the implementation of the EU policy framework on circularity.

3.1 Waste Framework Directive

The [Waste Framework Directive \(WFD\)](#) regulates waste collection and handling across the EU. Article 3 provides for the definition of separate collection of materials, which must be prepared for reuse and recycling according to the waste hierarchy. The Directive also regulates the definition of the basic **End of Waste criteria (EoW)** and introduces the possibility for Member States to enact Extended Producer Responsibility Schemes for producers through legislative or non-legislative measures.

The WFD sets forward obligations for Member States when it comes to **recycling and re-use**. Notably, Article 11 underlines that Member States shall take “measures to promote preparing for re-use activities, by *encouraging the establishment of and support for re-use and repair networks*, and by *promoting the use of economic instruments, procurement criteria, quantitative objectives, or other measures*”. Under the WFD, Member States were required to put in place measures to increase the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste (CDW) to at least 70% of that waste by weight by 2020. Although several Member States already met or are on track to meet the target for construction and demolition waste, the recycling of flooring still poses several challenges, notably difficulties related to the separation of materials, limited sorting and inefficient collection systems, and the presence of legacy materials in certain types of floorcoverings. In this context, the WFD also mandates States to introduce measures to promote **high-quality recycling** and set up systems to enable the **separate collection of waste**.

Finally, Member States shall also act to promote **selective demolition** in order to enable the removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling through the selective removal of materials. **Sorting systems** for CDW shall also be established, although with priority for wood, mineral fractions (e.g. concrete, bricks, tiles, ceramic and stones), metal, glass, plastic, and plaster. Some Member States are already enacting ambitious policies and systems for facilitating effective waste sorting and selective demolition techniques. Notably, under the “[From Waste to Raw Materials](#)” (VANG) programme³, the Netherlands have become a frontrunner in Europe for recycling of construction waste. Under the VANG, CDW is sorted at a large scale, also with the use of innovative technologies and techniques, such as optical or infrared sorting. Today, the Netherlands recycle over 88% of CDW, with less than 10% ending up in landfills. The Belgian region of Flanders implemented a [Sustainable Materials Construction Programme](#) (SMCP) based on five pillars, including one on selective demolition and disassembly. Through this programme, the region has developed an extensive regulatory framework on selective demolition, including standard procedures for the traceability of demolition materials by a demolition management organization, demolition management standard procedures, and a code of good practice, making selective demolition the norm.

3.2 Revised Waste Shipment Regulation

The [revised Waste Shipment Regulation](#), which entered into force in 2024, regulates the **transport of waste** across European borders and complements other EU legislative measures on waste management. As a general rule, the Regulation prohibits the shipment of waste destined for disposal,

³ In Dutch, Van Afval Naar Grondstof (VANG).

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which can only be authorised by competent authorities in case, among others, the waste could not be recovered in a technically feasible and economically viable manner, or its disposal is mandated by EU or international law. Moreover, the Regulation imposes strict obligations concerning the **prior notification** to competent authorities of any intended shipment of waste for disposal, recovery, or of mixed municipal waste collected from private households. Notably, Article 5 requires that original waste producers sign the notification document even when they are not the notifiers.

In most Member States, the Regulation has been transposed into law by requiring that waste carriers hold special licenses specifying the carrier has notified the competent authorities of its handling of waste.

In general, it is necessary that Waste Shipment Regulations across Europe do not hamper the transport of waste across EU borders, as the newly announced Circular Economy Act aims at strengthening the EU single market for circular products.

3.2.1 Member States laws on shipment of Waste

All EU Member States have enacted obligations for carriers, dealers, or brokers of industrial waste to register with national authorities. Details of the licensed waste collectors must then be included in national databases of carriers.

3.3 Revised Construction Products Regulation

The [revised Construction Products Regulation](#), which entered into force in 2025, lays down harmonised conditions for the **marketing of construction products** (including flooring). It introduces new environmental, functional, and safety **product requirements**, and lays the ground for the development of an **environmental assessment system** for those products. Manufacturers placing construction products on the market must ensure their products comply with specific technical performance standards thereby guaranteeing they are durable, safe, and overall reliable.

Articles 5 and 6 respectively underline that the European Commission shall task European Standardisation Organisations with drafting **harmonised technical specifications** for product families or categories or even adopt implementing acts laying down essential characteristics for construction products. These should be based on basic product requirements identified in the Annexes to the Regulation. Of note, under the CPR Acquis⁴, preparation works for the revision of the current standards for flooring (EN14041) are already undergoing, with the actual work on updating the standards expected to kick off between 2026 and 2027. The publication of the new standards is currently foreseen for 2030. The Regulation also empowers the European Commission to complement those standards or characteristics through delegated acts establishing further product requirements to improve resource efficiency, prevent waste generation, and prioritise repair, reuse, and remanufacturing. Article 37 provides that for products not covered by harmonised standard, a European Technical Assessment (ETA) can be issued. Article 13 introduces an **environmental reporting obligation** for manufacturers, which are required to provide a declaration of performance and conformity for products covered by harmonised technical specifications or further performance requirements before placing them on the market. Article 75 further obliges manufacturers to make a **Digital Product Passport (DPP)** available containing specific product information, including the declaration of performance and conformity, safety information, and instructions for use. The DPP is currently under development.

3.4 Revised Construction and Demolition Waste Protocol

[The EU Construction & Demolition Waste \(CDW\) Management Protocol](#), revised in 2024, aims to enhance confidence in CDW management processes and increase trust in re-used products and

⁴ The CPR Acquis refers to the bodies of laws and policy initiatives established under the CPR. Beside the CPR itself, these can include the harmonised standards, secondary legislation, and European Assessment Documents.

recycled materials. As CDW is the largest waste stream in the EU, better CDW management can deliver significant environmental, economic and social benefits since, for example, the revised version foresees the possibility for materials to be recycled onsite into new construction resources. Fulfilling EU and national legislative requirements for CDW management is the basic principle of the Protocol. Notably, the Protocol also refers to the possibility to recycle construction and demolition waste and use it as secondary raw materials in the production of new construction products at a manufacturing side, potentially including flooring leftovers from the installation of new floorcoverings.⁵ Although the Protocol is not binding, Member States are encouraged to develop legislative frameworks as well as national-level protocols in line with the objectives, principles and practices presented in this protocol.

3.5 Ecodesign for Sustainable Products Regulation

The [Ecodesign for Sustainable Products Regulation \(ESPR\)](#), entered into force in 2024, aims to make sustainable products the norm in the EU. It empowers the European Commission to adopt delegated acts to introduce **ecodesign requirements** for a wide array of products. Article 5 requires that the delegated acts introduce measures to address, among others, the durability, reusability, repairability, and recycled content of products. Moreover, the ESPR established a Digital Product Passport to store information about products, their components and materials, and their overall technical performance and circularity potential.

The ESPR and the revised Construction Products Regulation act as complementary measures, with the ESPR serving as a general framework, while the Construction Products Regulation aims at establishing specific criteria for construction products. Notably, the ESPR should set requirements for final construction products only where the obligations enacted by the revised Construction Products Regulation are unlikely to sufficiently achieve the environmental sustainability objectives set out by the ESPR. Similarly, the Digital Product Passport established under the ESPR will serve as a framework for the DPP introduced under the Construction Products Regulation.

3.6 Landfill Directive

Under the [amended Landfill Directive](#), which entered into force in 2018, Member States are required to adopt the necessary measures to ensure that, by 2035, the amount of municipal waste landfilled is reduced to 10% or less of the total amount of municipal waste generated by weight, with a limited number of exceptions.⁶ Moreover, Article 5(2) requires Member States to set up a national strategy to ensure a gradual reduction of the percentage of biodegradable waste destined to landfills. Notably, under Article 5(3), Member States are also required to set forth measures to ensure that, among others, waste that has been separately collected for preparing for re-use and recycling under the WFD does not end up in landfills. The amended Landfill Directive also requires Member States to report data on the implementation of landfilling targets yearly, instead of every three years, as required in the original Landfill Directive.

Notably, several Member States are likely to miss the 10% target of the Landfill Directive due to a lack of inadequate waste sorting and recycling infrastructures and limited funding.

⁵ However, the Protocol underlines that decisions on onsite recycling need to be taken case-by-case, taking into account the site characteristics like size of the site and proximity to green areas, residents and businesses. Such decisions need to consider economic, environmental, social and health factors and risks. Moreover, these type of operations often require ad-hoc permits or authorization.

⁶ Member States can postpone that target by up to five years in case they landfilled more than 60% of their municipal waste generated in 2013. Member States choosing to postpone the deadline will be required to notify the European Commission by 2033 and to submit an implementation plan as defined in Annex IV of the Landfill Directive. Within three months of the receipt of the implementation plan, the European Commission might, however, request a Member State to revise in case it assessed that the first plan did not comply with the requirements from Annex IV. The Member State shall then submit the revised plan within three months from the receipt of the Commission's request.

3.7 Persistent Organic Pollutants (POPs) Regulation

The [revised POPs Regulation](#), which entered into force in 2022, sets forth provisions for the prohibition or restriction of certain POPs, with a limited number of exemptions, and for waste management of contaminated waste. Of note, the Regulation requires producers and holders of waste to undertake all reasonable efforts to avoid, if feasible, contamination of that waste with the POP listed in Annex IV to the Regulation. In case of waste which consists of, contains, or is contaminated by the listed POPs above the specified concentration limit, waste producers and holders are required to dispose of that waste in a way to ensure that the POPs content is destroyed or irreversibly transformed, so that the remaining waste does not exhibit the characteristics of POPs.

The potential presence of POPs in flooring products remains a priority for the industry and represents a significant burden for the deployment of circular practices in the sector. Indeed, due to the long lifespan of floorcoverings, which generally spans between 20 and 40 years, there is a possibility that flooring currently in the waste stream will contain legacy substances in the future, meaning substances deemed safe for use at the time of manufacturing but no longer permitted for use in new products.

3.8 Circular Economy Act

The Circular Economy Act (CEA), expected for Q4 2026, will introduce **simplification measures in the area of circularity** and encourage a timely rollout of existing legislation (e.g. ESPR, WFD, Waste Shipment Regulation). Specifically, the CEA will aim at tackling several issues affecting the European flooring sector, such as a **price imbalance between virgin and circular materials**, **barriers to waste shipments**, **technical challenges** for recyclers in several sectors, and at **boosting the demand for secondary materials**. The CEA also aims at improving the functioning of an **EU single market for circular products**. Notably, the Act is expected to introduce legislative proposals to reform the WFD, reviewing the governance model for End of Waste (EOW) criteria, and improving the functioning of EPR schemes, potentially turning EPR provisions from the WFD into self-standing regulations.

3.9 Strategy for Housing Construction

The European Commission is planning to publish a European Affordable Housing Initiative Plan in early 2026. The Plan will address the 'housing crisis', including the need to **modernise the construction sector**, to support the supply of affordable and sustainable housing. To this end, it will present a **Strategy for Housing Construction**, which is expected to reduce building and renovation costs, improve the environmental performance of new buildings, support more skilled workers, facilitate greater access to the Single Market, and harness the full potential of digitalisation and innovative building techniques. Overall, the initiative aims at creating a more resilient and sustainable housing sector that meets the needs of Europe and Europeans.

3.10 Chemicals Industrial Package

The European Commission has announced a **Chemicals Industrial Package**, expected by 2025, which will include a revision of REACH. Moreover, upcoming legislative measures setting forth provisions on legacy additives, including PFAS and POPs, might lead to further challenges for the end-of-life management of floorcoverings, particularly for specific types of flooring, such as textiles. In this context, EU floorcovering manufacturers are actively working towards the development of technical solutions to address potential arising issues.

4 Policy Considerations

Following the publication of the CISUFLO preliminary policy brief in May 2023, this final brief outlines recommendations based on the project's outcomes. To achieve this, a questionnaire (see Annex 01+++) was sent to over 500 project partners, including manufacturers of different types of floorcoverings and trade association representing the flooring sector.

Participants in the survey particularly focused on the current outcomes of the project and highlighted potential policy measures needed to support the flooring sector implement circular practices. Notably, the survey addressed measures concerning design for circularity, increased recycled content in floorcoverings, and the collection, sorting and recycling phases, as well as the introduction of a Digital Product Passport for floorcoverings.

Based on the survey responses and CISUFLO's analysis, this final policy brief tackles the following policy issues: Design for Circularity, Increased Recycled Content, Collection, Sorting, Recycling, and the introduction of a Digital Product Passport.

4.1 Design for Circularity

One of the key objectives of CISUFLO was designing new flooring products with a maximum percentage of recycled content and fully in line with the circular economy objectives. The European floorcovering industry is already adopting **circular design options**, with several floorcoverings' producers in the EU incorporating circular design practices during the initial design phases of their products. Some examples of circular practices in the floorcovering sector include the design of circular carpet with recycled nylon piles, the adoption of mono material construction techniques, and positive trials for fibre recycling. Moreover, in November 2024, following a standardisation request by the European Commission, the European Committee for Standardization's Technical Committee on Resilient, Textile, Laminate, and Modular Locked Floor coverings (CEN TC 134) published a technical specification on circular design for floorcoverings ([CEN/TS 18075:2024](#)). This document provides general recommendations and guidelines on how to design floorcoverings to optimize their reuse and recyclability at the end of their lifetime, while taking into account the sustainable sourcing of materials.

However, many of the floorcovering producers who took part in the survey experience difficulties in incorporating circular practices within the production cycle and underlined that current design practices for the sector do not effectively support circularity. Moreover, the **high costs of sustainable design options**, the **absence of take-back schemes**, a **gap between the research/design phase and the installation phase**, and a still **tepid market support for circular options** further hamper the transition of the flooring industry towards circularity. Circular design also requires producers to address **complex technical challenges** for different flooring types, notably the separation of products and materials and the presence of legacy substances, and issues related to the product tagging, further slowing down the adoption of sustainable design options. Finally, a number of participants to the survey also underlined the **lack of clarity for labelling systems** notably in terms of what information manufacturers must provide on flooring products.

Besides the CEN/TS 18075:2024 standards, the revised CPR also envisions the **development of circular design requirements** through secondary legislation to facilitate a reduced use of raw materials and address challenges also specific to the flooring sector, notably separation of products, components and materials at deinstallation, deconstruction and demolition. The **extension of these requirements will play a fundamental role** in guiding manufacturers in designing products that are more durable, repairable, reusable, and recyclable, by setting clear instructions for what is required in terms of products design and performance.

Moreover, further action from the EU will be needed in several areas. Funding for innovative circular options needs to increase, to ensure that the design of sustainable products and materials will be

incentivized and supported through further investments in the latest technologies. The introduction of **European standardised End-of-Waste criteria for construction products and/or flooring** in the context of the WFD would also incentivize circular design practices by providing further clarity to the flooring industry and avoiding fragmentation among Member States legislation. These should be complemented with the definition of harmonised eco-design standards, including labelling, and the **timely commercial introduction of the Digital Product Passport systems** currently under development. Finally, a higher degree of **harmonization will also be needed for WFD provisions on recycling and separation practices**, as the different regimes in Member States vary widely and lead to inconsistent availability of secondary raw materials depending on the region, thus hampering manufacturers' ability to properly implement circular design practices.

The introduction of **harmonized Extended Producer Responsibility (EPR)** schemes would also provide further clarity to producers, as the implementation of EPR schemes is currently extremely fragmented at Member States' level, together with the use of **EPR fees to introduce incentives for circular design practices**. Further **financial and non-financial incentives** should also be considered, including, for instance, deposit and refund systems for flooring, lower prices for secondary materials, and potentially incentives for the establishment of take-back schemes.

4.2 Increased Recycled Content

CISUFLO also aims at **increasing the percentage of recycled content** included in final flooring products, taking into account the technical challenges that the inclusion of recycled content poses for different flooring types. Recycled content requirements are a fundamental component of circular systems and the reuse of resources. **Many EU policy measures focus on establishing recycled content targets**. In the context of the revised Construction Products Regulation, minimum recycled content for construction products, including floorcoverings, might be introduced through specific secondary legislation. **At the same time, the WFD does not currently envision a specific target for recycled content for construction and demolition waste (CDW)**.

Several producers in the sector already include a share of recycled materials in their final products, with percentages ranging from 5% up to 95%. However, the majority of respondents to the survey underlined the fact that they face **several technical or regulatory barriers in the use of recycled materials**. Notably, the high cost of recycling procedures affects the market attractiveness of recycled floorcoverings, while the absence of overall recycling systems and standards leads to low availability of secondary materials. The EU should, therefore, **promote and facilitate the use of recycled content in floorcoverings by introducing financial incentives and harmonized measures on recycled content, and by advocating for the introduction of tax incentives at Member States' level**. Taking into account **the EU's current push towards simplification, the European Commission could consider introducing minimum European recycled content targets through voluntary ecolabels**, to facilitate the inclusion of recycled materials in the final products where technically feasible, without introducing new mandatory red-tape for manufacturers. **Eco-design guidelines** can also help streamline the use of secondary raw materials in floorcoverings, taking into account the technical challenges for different flooring types. These measures could also be complemented with further measures such as **green public procurement provisions** and the **use of EPR fees to fast-track the deployment of commercial recycling technologies**, while maintaining a technology neutrality approach. Finally, EU initiatives will need to address the technical challenges faced by the flooring industry, notably concerning legacy substances, and potentially consider **accepting higher levels of those substances in flooring products**, without jeopardizing human health nor leading to any environmental hazard.

Consulting industry experts will be a fundamental step in shaping these policies, since they can provide relevant input on the feasibility of inclusion of recycled material into the final flooring products, including any technical limitation or challenges that need to be addressed.

4.3 Collection, Sorting, and Recycling

Effective collection, sorting, and recycling practices can strongly incentivize the development and large-scale deployment of circular floor coverings.

Notably, a proper collection of waste can help **ensure that resources are used efficiently and sustainably** and facilitate the adoption of circular practices at a large scale. Waste collection targets are usually supported by recovery targets set in EU legislation, notably those from the WFD. However, neither the revised WFD or CPR contain any collection obligations for construction and demolition waste. Floorcovering manufacturers also often face **significant logistical and/or economic challenges** in achieving efficient waste collection, as the availability of functional collection systems varies from State to State, with different degrees of both ambition and effectiveness. Several floorcovering manufacturers have developed or are in the process of developing their own collection systems, which, however, risks leading to significant fragmentation of collection practices in the sector. Furthermore, **technologies to facilitate waste collection in some sectors, notably carpet flooring, are still underdeveloped**. Finally, associations such as the Modular Flooring Association (MMFA) and the European Resilient Flooring Manufacturers Institute (ERFMI) are already working on innovative best practices, notably on functional waste collection solutions, but **lack the funding for a large-scale deployment**.

The sorting of flooring waste should take place before the demolition phase, in order to separate and collect the recyclable materials more efficiently and make it easier to meet the requirements for collection and sorting by the recycler. Good sorting practices ensure **cleaner waste streams**, thus enhancing the quality of recovered materials. However, these processes often translate into additional labour and equipment costs for the demolition company. While the WFD requires that Member States promote selective demolition in order to facilitate high-quality recycling by selective removal of materials, and to ensure the establishment of sorting systems for construction and demolition waste, a lack of EU-wide standardized criteria for sorting, and recycling practices has led to strong uncertainty for European floorcoverings manufacturers and difficulties in sourcing secondary raw materials.

Harmonization efforts should, therefore, be at the core of EU policy action. Although the Construction and Demolition Waste Protocol introduced the possibility for materials to be recycled onsite into new construction resources, such as in the case of flooring leftovers derived from installation of a new flooring, a further harmonisation of the rules is still necessary.

Furthermore, while WFD outlines fundamental principles on waste management and establishes **EoW criteria**, these have been established at EU level solely for iron scrap, copper scrap, and glass cullet, with works on EoW criteria for plastics and textiles currently ongoing. For a wider range of flooring products, the criteria remain decentralized and defined at national/local level, translating into **logistical challenges and further administrative red tape for manufacturers**. The introduction of **standardised EoW criteria** for the flooring sector would thus provide manufacturers with much needed legal certainty, reduce unnecessary administrative red tape, and encourage recycling efforts in the EU.

EU-wide criteria would also translate into a positive impact for waste shipment and transportation across EU Member States. The current use of different guidelines at Member States' level makes the procedure and communication particularly burdensome for operators. In this context, the **Waste Shipment Regulation** represents a good balance between the necessity to safeguard human health and the environment against the adverse effects of hazardous waste and the need to not disrupt the operations of manufacturers. Particularly, the inclusion of a "green-list" of non-hazardous wastes – especially where no EoW criteria have been established – that are subject to simplified information requirements will help manufacturers meet the objectives of the Directive without incurring in excessive administrative burdens. Moreover, the establishment by the Commission of a list of non-

OECD countries to which exports of non-hazardous waste are allowed, in 2026, will provide the flooring industry with further clarity.

EPR schemes could also prove to be a useful instrument to reinforce waste collection, sorting, and recycling practices among Member States. Therefore, the EU should consider introducing specific provisions to mandate the establishment of EPR schemes for the flooring sectors. However, the Union must avoid creating additional red-tape and costs for floorcoverings manufacturers, while ensuring harmonization of EPR schemes among Member States. Therefore, consultation with European floorcoverings manufacturers will be of key importance in the developing phase of EPR schemes for the sector, to facilitate waste collection and the overall adoption of circular practices without leading to an increase in costs for manufacturers. These measures could be complemented by discussions on the introduction of a tax on landfilling at Member States' level – although the roll out of such a measure would also need to be gradual and take the key challenges of the flooring sector into account, to allow manufacturing industry to properly adapt within a reasonable timeframe – together with financial incentives for recycling floorcoverings.

Further initiatives could potentially include the introduction of new requirements on **mandatory and centralised collection systems** for flooring, including regional hubs, collection points and return stations in combination with better sourcing practices. These could prove useful in reducing the amount of waste that ends up in landfills or is illegally dumped and in collecting enough critical mass to make the recycling process economically viable. However, noting the complexities posed by the effective implementation of collection schemes – concerning, for instance, financing opportunities, technical requirements, and coordination mechanisms – it would be fundamental to gather valuable input from EU floorcoverings manufacturers to ensure that potential new requirements will address those issues appropriately. Moreover, as information on collection sites remain highly fragmented among Member States, a structured and harmonized approach on the sharing of collection site data, potentially including funding for the development of local interactive maps to locate drop-off sites, would greatly facilitate accessibility to collection facilities within the EU. In this sense, the EU has already launched successful initiatives to support companies in different sectors, most notably the European Digital Innovation Hubs (EDIHs).

Finally, the EU should also promote innovative solutions for the collection, sorting, and recycling phases, while adopting a technology neutrality approach, and potentially advocate for the introduction of a tax on non-properly reusable/recyclable goods at Member States' level.

4.4 Digital Product Passport

The development of **Digital Product Passports (DPP)** will play a key role in the large-scale use of circularity practices. Several EU legislative measures, notably the ESPR and revised CPR, mandate economic operators, including manufacturers, to make a DPP containing information on the technical and environmental performance of products available. Moreover, the European Commission has further underlined the importance of DPPs initiatives to facilitate the digital and sustainable transition in its recently published Competitiveness Compass.

The floorcoverings sector will also benefit from the introduction of electronic product passports. Several respondents to the survey agreed that a DPP would **facilitate the adoption of better circular design, collection, sorting, and recycling practices for the flooring sector**, and most respondents are already preparing to implement a DPP system, anticipating the full applicability of the CPR. As an example of good practice, one of CISUFLO's objectives is the development of an electronic product passport to display the link between the identification tag on flooring products and the product information required by the different stakeholders along the value chain. To this end, [ePRODIS](#), an integrated product information system, will be introduced for all flooring types (laminated, vinyl, textile, and multilayer modular floor coverings) as an extension of the existing [PRODIS](#) system, which was

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developed for the carpet industry. The new ePRODIS system is currently expected to become commercially viable in Q1 2026, following the conclusion of the European Commission's work on the DPP.

The first industry feedback on ePRODIS

The DPP should be linked to a general standard by product group (defined by the scope of the corresponding CEN TC) defining the product passport as such, while, for each type of product (laminate, vinyl, textile and multilayer modular floor covering), there should be specific product passports containing information (data) in accordance with the product specific standards. In this context, it is necessary that the DPP is as **user-friendly as possible**, as underlined by several respondents to the survey, in order to account for the large number of products that manufacturers produce and need to provide information on. Moreover, the passport should be structured in a way that allows for conformity assessment procedures to be easily modified and adapted in order to reflect a product's evolution and/or new regulatory requirements. The system should also allow for the registration of data for new products which are under development and for which not all standardization work has been completed. Furthermore, the DPP should also let manufacturers group individual products to reduce the administrative burden. Additionally, it will be fundamental to ensure that the addition of tags or labels to link the DPP to a specific flooring product does not lead to an excessive increase in price for manufacturers, and that such labels and tags are positioned on products in a manner that makes them easily readable. In this context, the EU could offer support to flooring manufacturers in the development of voluntary industry guidelines on labels and targets for flooring products. Finally, the EU DPP for flooring should also take the development of other Digital Product Passports initiatives on a global scale into account, with the objective to potential interoperability efforts from the product level to the international level.

4.5 Non-technical recommendations

The technical policy measures proposed in the chapters above should be further complemented by EU-wide initiatives to promote the adoption of circular flooring options sector and streamline the sharing of technical knowledge and best techniques in the sector. In this context, the EU could consider launching a **flooring sector-specific multi-stakeholder dialogue** to facilitate knowledge sharing between experts on different flooring types and encourage further collaboration for the development of innovative solutions within the industry. These dialogues have already proven effective in the past for different sectors (e.g., the Circular Plastic Alliance).

Such initiatives could be further complemented through awareness-raising projects financed through EU funding. These campaigns would not only further encourage the adoption of circular practices in the flooring sector by showcasing successful circular floor covering solutions developed by European manufacturers, but also underline the long-term benefits brought forward by the deployment of those solutions. In this context, in the past, the EU has financed several initiatives to promote public awareness on different sectors through the LIFE+ Programme.

5 Table summarising policy recommendations

The following table provides an overview of the policy recommendations on design for circularity, increased recycled content, waste collection, sorting, and recycling, and the DPP provided in the previous chapters.

Design for circularity	• Develop circular design requirements through secondary legislation. • Increasing funding for circular flooring solutions. • Introducing EU-wide standardized EoW criteria. • Streamlining the introduction of the DPP systems under development at a commercial scale. • Harmonizing recycling and separation practices.
Increased recycled content	• Introducing financial incentives and harmonized measures on recycled content, including by pushing for tax incentives at Member States' level. • Introducing minimum European recycled content targets through voluntary ecolabels. • Introducing eco-design guidelines to streamline the use of secondary raw materials in floorcoverings, taking technical limitations into account. • Introducing green public procurement provisions • Use of EPR fees to fast-track the deployment of commercial recycling technologies, while maintaining a technology neutrality approach. • Address legacy substances issues.
Collection, sorting and recycling	• Introducing EU-wide standardized EoW criteria. • Introducing EU-wide EPR scheme for the flooring sector, avoiding an increase of costs for manufacturers. • Advocating for a tax on landfilling at Member States' level together with financial incentives for recycling. • Introducing new standards on mandatory and centralized collection systems, potentially funding the development of local maps for drop-off points. • Incorporating innovative technologies in the sorting phase.
Digital Product Passport	• Ensuring that the DPP for the flooring sector is as user friendly as possible. • The DPP should allow for conformity assessment procedures to be easily modified and adapted, and for the registration of new products under development and for which not all standardization work has been completed. • The DPP should also allow for the grouping of individual products. • Ensuring that the addition of labels or targets to link specific products to the DPP do not lead to an increase of costs for manufacturers. • Ensuring that labels and targets are positioned on specific products in a way that makes them easily readable. • Allowing for interoperability between DPPs on a global scale.
Non-technical recommendations	• Launching a flooring sector-specific multi-stakeholder dialogue. • Financing awareness raising measures.