



ELLEN MACARTHUR
FOUNDATION

FROM INFORMATION TO MARKET TRANSFORMATION

**Why the ESPR must
mandate performance
requirements for textiles**

CONTENTS

INTRODUCTION	3
01 MANDATORY PERFORMANCE REQUIREMENTS DRIVE MARKET TRANSFORMATION, INVESTMENT, AND RESILIENCE	5
02 EMBEDDING CIRCULAR PRINCIPLES AT THE DESIGN STAGE TO REDUCE IMPACTS AND KEEP MATERIALS IN USE	8
03 A FRAMEWORK FOR CONTINUOUS IMPROVEMENT	16
04 ESPR AND EPR: COMPLEMENTARY LEVERS FOR A CIRCULAR TEXTILE ECONOMY	18
ENDNOTES	20
ACKNOWLEDGEMENTS	23

INTRODUCTION

The Ecodesign for Sustainable Products Regulation (ESPR) is the EU's main regulatory mechanism for setting mandatory product requirements. As the EU's flagship framework for "making sustainable products the norm", reducing carbon and environmental footprints throughout their life cycles, it has the potential to accelerate the transition to a circular economy in Europe.¹

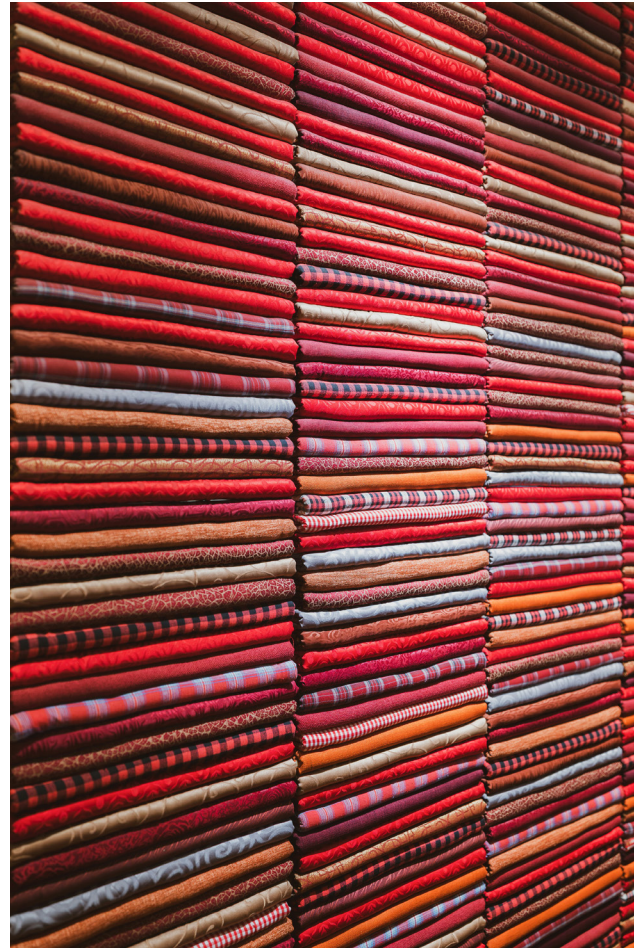
For textiles, one of the first product categories to be addressed under the framework, the technical feasibility stage is drawing to a close. The decisions being made now are therefore particularly consequential: they will determine whether the ESPR becomes a transformative instrument that drives circular product design at scale. Yet, the current Joint Research Centre's (JRC)² proposal treats most of the design options primarily as information and labelling requirements rather than as performance requirements with binding thresholds. To deliver on its stated ambition of "making sustainable products the norm" and "developing a strong and well-functioning Single Market", the regulation must do more than facilitate product comparison through labelling. Beyond transparency, the regulation must establish mandatory performance criteria that embed circular economy principles directly into product design and market access conditions; only then will the ESPR deliver a credible legislative framework for the EU's environmental objectives and a more competitive, resilient economy.



Based on the JRC's proposed four eco-design requirements for textiles and drawing on consultations with industry and civil society, this White Paper sets out a series of recommendations aiming at strengthening the Delegated Act.³ To prevent the least durable products from entering the market, create a level playing field between producers, and provide the regulatory certainty needed to drive investment in circular product design at scale,⁴ the Delegated Act should:

- Convert the robustness⁵ criterion from an information requirement to a mandatory performance requirement with binding market access thresholds
- Strengthen the recyclability criterion
- Prioritise post-consumer fibre-to-fibre recycled content while gradually increasing recycled-content targets over time
- Prioritise a mandatory product-level repairability requirement in a future revision of the Delegated Act

This White Paper also recommends that the Delegated Act include review clauses, allowing thresholds to be raised and parameters to expand while giving businesses sufficient lead time to plan investment in design, testing and supply chain adaptation ahead of compliance deadlines — conditions that are essential if the Delegated Act is to achieve its long-term ambition.



WHAT IS THE ECODESIGN FOR SUSTAINABLE PRODUCTS REGULATION?

The ESPR's legal objective is to improve the environmental and climate footprints of products placed on the EU market while also developing a strong and well-functioning internal market for sustainable products.

The ESPR is the EU's primary regulatory mechanism for setting product requirements across a wide range of product categories.

The ESPR establishes a framework through which the European Commission sets product-specific requirements via Delegated Acts. A product category becomes subject to concrete ESPR obligations only once a Delegated Act for that category has been adopted. Entered into force in July 2024, it replaces and expands the scope of the previous Ecodesign Directive, which essentially focused on energy-related products.⁶ It introduces a broader set of criteria, covering durability, repairability, recyclability, recycled content and carbon and environmental footprint and will apply to all products placed on the EU market, whether produced inside or outside the EU. In addition to electronics and furniture, textiles are among the first product categories to be addressed. The regulation also introduces a ban on the destruction of unsold consumer goods, including apparel, clothing accessories, and footwear.⁷

The single overarching intent of the ESPR is to make sustainable products the norm within the EU Single Market.⁸ In the textile sector, this means tackling the most significant environmental challenges, including significant carbon emissions, high water consumption, and considerable chemical pollution throughout the value chain.⁹ To address the impacts, four ecodesign criteria have been identified: robustness, recyclability, recycled content and environmental footprint.

01

**MANDATORY
PERFORMANCE
REQUIREMENTS
DRIVE MARKET
TRANSFORMATION,
INVESTMENT, AND
RESILIENCE**

01 MANDATORY PERFORMANCE REQUIREMENTS DRIVE MARKET TRANSFORMATION, INVESTMENT, AND RESILIENCE

The ESPR Delegated Act on textiles can only deliver on its intended impact if it includes mandatory performance requirements alongside information tools. Voluntary information measures can play an important role in improving transparency. Still, experiences in other sectors show that they are rarely sufficient on their own to bring about market-wide transformation. In the plastics sector, awareness-raising and voluntary initiatives have gradually been complemented by mandatory measures, including product bans, design requirements, targets for recycled content and producer responsibility obligations.¹⁰ Similarly, in energy efficiency, the information provided by energy labels was eventually supplemented by mandatory eco-design requirements, which helped to remove the least efficient products from the market.¹¹ These examples point to a broader lesson: information can foster change, but performance requirements drive it at scale. There is little reason to expect the textile sector to be fundamentally any different. The introduction of Digital Product Passports (DPPs) and improved information requirements represent genuine progress on transparency, but the essentially voluntary nature of this approach risks leading to slow and uneven uptake, at a time when rapid improvements in product circularity are needed.

“These examples point to a broader lesson: information can foster change, but performance requirements drive it at scale.”



The introduction of mandatory performance requirements will help safeguard the significant public and private investment already committed to building a circular economy for textiles in Europe. Through Horizon Europe, LIFE, Interreg, and other programmes, the EU has invested hundreds of millions of euros in the circular economy for textiles in research, innovation, and infrastructure.¹² In parallel, businesses have invested heavily in circular product design, circular business models, and recycling capacity. For example, the aggregate contracted private investment in recycling amounts to several hundred million euros, with ventures including H&M with Syre (EUR 550 million),¹³ Inditex with Infinited Fiber (EUR 100 million)¹⁴ and Ambercycle (+ EUR 70 million).¹⁵ Securing a return on these investments depends on creating a market that rewards circular innovation. By establishing enforceable mandatory performance requirements across the market, regulation can create a clear demand signal for circular products, ensuring that circular design becomes the norm rather than a cost borne by frontrunners. In doing so, it provides greater certainty for future investment and reduces the risk that lower-standard products undermine the economic and environmental benefits of investments already made.

The EU has positioned itself as a global leader in the transition to a circular economy, with the ESPR as a central instrument for delivering its environmental and economic ambitions. The circular economy is recognised as a strategic lever for improving resilience, strengthening competitiveness, and reducing dependence on imported resources. Robust requirements on durability, reparability, recycled content, and recyclability can increase the availability of secondary materials, strengthen domestic circular value chains, and reduce reliance on imported virgin resources. The implementation of a large-scale circular economy in the textile sector represents thousands of potential jobs in collection, sorting, repair, refurbishment and resale activities.¹⁶ These opportunities are real but will only materialise if circular activities move beyond pilot projects to reach a significant scale — something that an ambitious ESPR can help to achieve.



02

**EMBEDDING
CIRCULAR
PRINCIPLES AT
THE DESIGN
STAGE TO REDUCE
IMPACTS AND KEEP
MATERIALS IN USE**

02 EMBEDDING CIRCULAR PRINCIPLES AT THE DESIGN STAGE TO REDUCE IMPACTS AND KEEP MATERIALS IN USE

For the Delegated Act, the JRC has proposed four ecodesign requirements for textiles, three information requirements and a mandatory performance threshold.¹⁷ This White Paper sets out recommendations for strengthening these proposals in line with broader circular economy objectives.¹⁸



ROBUSTNESS

PROPOSAL

The JRC proposes **Design Option 1 (DO1)** as an **information requirement on robustness**.¹⁹ It would be reflected through a points-based rating system based on the performance of measurable parameters after five wash cycles. The parameters assessed are the spirality, dimensional stability and a visual inspection of the colour, fabric, seams and non-textile components.

BLIND SPOTS

The robustness framework represents an important step forward; however, three limitations warrant attention.

First, as an information requirement, it identifies where products fall short of the robustness parameters but imposes no obligation on producers to meet even the minimum bar. The proposal also lacks a mechanism to disqualify products with functional weaknesses, such as seam or zipper failure after normal use, regardless of a product's overall score. Second, the JRC's robustness definition is appearance-based only — measuring how a product looks, not how it performs. By focusing primarily on aesthetic signs of ageing after only five cleaning cycles, garments that remain looking pristine are likely to score higher than those that remain intact, leading to biased results from a circular design perspective. A garment that resists fading may score higher than a pair of jeans designed to last for decades. This contrasts with the definition being developed by CEN/CLC/JTC 23 WG 3, which defines robustness as the ability to maintain required performance when subjected to foreseeable variations in use conditions, maintenance practices, and user behaviour.²⁰ Third, the five-wash threshold underpinning the scoring system is not derived from a harmonised standard or empirical evidence, but from expert judgement obtained through stakeholder consultation, despite existing industry practice demonstrating that considerably more demanding robustness thresholds are both achievable and already in use at commercial scale (see next paragraph).

NEXT STEPS

The proposed points-based scoring system should be retained and built upon, but complemented by a mandatory performance threshold that determines market access. The wash threshold on which the performance is based should also be raised considerably above the current five cycles, while still ensuring differentiation by product category and use intensity. The standards to operationalise this already exist: established ISO standards covering the key robustness parameters, including dimensional stability,²¹ colour fastness,²² seam strength,²³ pilling resistance,²⁴ and abrasion resistance²⁵ are already widely used across the industry and referenced in the JRC's report. The next steps should focus primarily on harmonising methods and agreeing on thresholds, rather than developing new testing frameworks from scratch. Industry practice already demonstrates that considerably more demanding robustness thresholds are achievable and in commercial use at scale. The Jeans Redesign Guidelines (see page 13) set a minimum of 30 home laundries as a durability benchmark; Primark's Circular Product Standard applies a two-tier durability framework testing products to 23 washes at its Foundational level and 32 at its Progressive level, with 77% of denim and jersey products tested in 2024/25 meeting or exceeding the progressive standard; and H&M Group tested a significant share of their core materials and products²⁶ for up to 50 washes as part of their circular design framework.²⁷ Unlike recyclability, where the results depend on the existence of collection, sorting and recycling infrastructure, robustness is largely determined at the design and manufacturing stages. This makes this criterion particularly well-suited to mandatory performance requirements.

IMPACT

Making robustness mandatory would ensure that garments last longer, which is one of the single most effective ways to reduce the environmental footprint of textiles and safeguard against early technical failure and disposal.

Extending the active lifespan of apparel by just nine months is estimated to reduce carbon, water, and waste footprints by 27%, 33%, and 22%, respectively, and research indicates that increasing the number of wears per garment is the single most effective way to reduce environmental impacts across all fibre types.²⁸ For businesses already meeting higher durability standards, a mandatory requirement rewards prior investment and corrects the competitive disadvantage relative to shorter-lived alternatives, while also reducing downstream costs through lower EPR fees and municipal waste management expenditure.

“Unlike recyclability, where the results depend on the existence of collection, sorting and recycling infrastructure, robustness is largely determined at the design and manufacturing stages. This makes this criterion particularly well-suited to mandatory performance requirements.”

RECYCLABILITY

PROPOSAL

The JRC proposes **Design Option 2 (DO2)** as a **mandatory information requirement on recyclability**.²⁹

It is assessed through a points-based scoring system. Products are awarded points for avoiding materials and finishes known to disrupt recycling processes, such as prints, coatings, sequins, or dyes. Mono-material products would score higher, while products containing more than 15% elastane are classified as non-recyclable under the proposed methodology.³⁰

“By ensuring a more consistent supply of high-quality feedstock, mandatory thresholds would give recyclers and investors greater confidence to invest in recycling infrastructure.”

BLIND SPOTS

The scoring system represents a meaningful step forward, but three aspects of the current proposal warrant further consideration. The design thresholds embedded in the scoring system can be pushed further and, where technically possible, introduced as performance requirements: evidence suggests that elastane above 10% affects mechanical recycling — lower than the proposed threshold — and industry practice demonstrates that considerably lower rates are commercially achievable.³¹ H&M Group’s own recycling survey found that most recycling technologies can only process up to 3-5% elastane;³² The Jeans Redesign participants had to include a minimum of 98% cellulose-based fibres, by weight, in the total textile composition, giving them a limit of 2% elastane,³³ and Primark’s Circular Product Standard requires 95-97% mono-material by weight at its Foundational level.³⁴ Stronger design thresholds matter beyond recyclability itself: products designed to be recyclable generate higher-quality recovered fibre, which in turn creates the feedstock needed to meet recycled content requirements. The recyclability score also risks misleading consumers since actual recycling outcomes depend on collection systems, sorting capacity, and processing infrastructure, all of which vary considerably across EU Member States. A consumer presented with a high recyclability score may reasonably assume that the product will be recycled at the end of life, even if the technology or infrastructure isn’t available in their region. For this reason, recyclability information is most valuable as a design consideration for sorters and recyclers making decisions about material flows, rather than as a consumer-facing indicator of end-of-life outcomes. Therefore, it would be more accurately directed to supply chain actors, including sorters and recyclers, through the DPP’s machine-readable data layer than presented to consumers as an apparent guarantee of recycling.

NEXT STEPS

The Commission should consider raising design thresholds in future revisions, alongside an assessment of the timeframe for setting up recycling infrastructure. Fibre-to-fibre mechanical polyester recycling is now available at scale in some markets, and chemical recycling technologies for cellulosic and synthetic fibres are advancing, meaning that today’s thresholds may be significantly below what is achievable within the timeframe of the Delegated Act.³⁵ A structured review mechanism, triggered at defined intervals and informed by the state of recycling infrastructure, would allow requirements to be progressively raised as technologies mature and geographic coverage of recycling capacity improves. This would give investors, producers and recyclers the visibility needed to invest ahead of future standards.³⁶

IMPACT

Stronger design thresholds for recyclability would enable the secondary material markets on which the recycled content requirements depend. By ensuring a more consistent supply of high-quality feedstock, mandatory thresholds would give recyclers and investors greater confidence to invest in recycling infrastructure. They would also improve the economics of sorting operations by reducing the cost associated with unrecyclable material and increasing the share of fibres suitable for textile-to-textile recycling. Together, these measures would strengthen the market for secondary materials, supporting the ESPR’s objective of “developing a strong and well-functioning Single Market”.

RECYCLED CONTENT

PROPOSAL

The JRC proposes **Design Option 3 (DO3)** as a mandatory performance requirement for recycled content, with an initial minimum threshold of 5%.³⁷ Thresholds vary by product category and fibre type, with denim identified as a category where higher recycled content is already technically feasible (up to 20% recycled cotton).³⁸

BLIND SPOTS

Mandatory thresholds for recycled content are an important step forward, but the proposed thresholds for some textile products remain conservative compared to what is already technically and commercially achievable.

Additionally, the definition has expanded beyond its original scope, focused on fibre-to-fibre recycling of post-consumer waste, to include open-loop sources such as PET bottles and pre-consumer waste. Without distinguishing between open- and closed-loop recycled content, brands could meet targets without ever utilising post-consumer textile waste. This risks undermining investment in textile-to-textile recycling, and potentially diverting PET from a well-established bottle-to-bottle recycling system, creating further uncertainty regarding end-of-life treatment.

NEXT STEPS

The Commission should prioritise recycled content from post-consumer closed-loop sources, and phase in higher thresholds over time. Distinguishing post-consumer fibre-to-fibre recycling from pre-consumer fibre-to-fibre and open-loop feedstock, such as PET bottle-to-fibre systems, stimulates demand for secondary material markets and creates the investment case for scaling dedicated textile sorting and recycling infrastructure.³⁹ In addition, phasing in higher thresholds would create the demand signal for secondary fibre markets and reduce businesses' exposure to virgin material price volatility as supply chains transition toward closed-loop sourcing. Industry practice demonstrates that considerably more ambitious thresholds are already feasible for several product categories. Participants from The Jeans Redesign showed that up to 87% post-consumer recycled content is achievable at a commercial scale while still meeting rigorous durability standards, suggesting the proposed minimum for denim is considerably below what is technically feasible.⁴⁰ Industry experience corroborates this: Primark's Progressive level requiring fibre-to-fibre recycled content across both cotton and polyester categories, and 74% of clothing units already incorporating recycled or more sustainably sourced fibres in 2024/25;⁴¹ H&M Group has committed to sourcing 30% recycled materials across its products, explicitly distinguishing post-consumer textile waste from PET bottle feedstock;⁴² and Arc'teryx's participation in the Testex Circularity pilot, with recycled and preferred materials integrated into the final standard.⁴³ Open-loop sources will continue to play a role as fibre-to-fibre infrastructure scales, and the regulation should accommodate this during a transition period, subject to a phase-out timeline, as closed-loop alternatives become commercially available at scale.

IMPACT

Recycled content requirements directly address mounting volumes of textile waste, and the benefit is greatest when content is sourced from post-consumer fibre-to-fibre recycling. This keeps fibres in a closed-loop circulation, avoiding the downcycling and quality loss that prevent future recyclability. It also helps prevent the diversion of feedstock from the packaging sector where it is needed.⁴⁴ With over 80% of textile waste arising at the post-consumer stage, prioritising this stream enables the problem to be tackled head-on.⁴⁵ However, currently, no textile-to-textile recycling operations exist at scale globally. A shared innovation agenda is needed to focus efforts and investments towards recycling technologies for textiles, alongside the adoption of design-for-recycling principles. The ESPR has a key role to play in this emerging landscape, as performance requirements can stimulate investments and market uptake.



REPAIRABILITY

PROPOSAL

The JRC proposes a voluntary information requirement on brand-offered repair services via the DPP. This voluntary information requirement would allow brands to list contact details for their own repair services.⁴⁶

BLIND SPOT

Although durability and repairability were identified as priorities under the ESPR framework, the JRC concludes that it is virtually impossible to objectively measure clothing repairability. Garments vary significantly in composition, construction, and style, making standardised repair testing challenging to implement affordably. This, however, overlooks the fact that design decisions determine repairability, and that a requirement for brands to provide information about the services they offer voluntarily does nothing to address the upstream design choices that determine whether a garment can be repaired easily and efficiently.

NEXT STEPS

Establishing a meaningful mandatory requirement on product-level repairability will require further research and standardisation work, which is why it should be the primary focus of a future revision of the Delegated Act (see section 03) with a view to linking it to the Right to Repair Directive. Once repairability requirements are established by a Delegated Act, the Commission could link them to the Right to Repair Directive's Annex II mechanism. This would trigger the full suite of repair obligations, including consumer access to repair services through the European Repair Platform and support for independent repairers and social enterprises across Europe. These are environmental, social, and economic benefits that the current voluntary approach cannot achieve.⁴⁷

Three constraints in particular need to be addressed in priority: the absence of international standards, product category specificity, and the availability of skills and infrastructure. A practical starting point already exists: the Öko-Institut proposes that repairability be evaluated based on whether standard fastenings are used and whether they are readily available.⁴⁸ This is corroborated by industry practice: H&M Group's Circulator Guide 2.0 identifies standardised components and spare parts availability as core repair design criteria.⁴⁹ The conditions that make repair operationally viable, including spare parts availability and component standardisation, are unlikely to be adopted consistently without a mandatory requirement, since they impose costs that voluntary action alone can't distribute equitably across producers.⁵⁰ Repair services are only one element of a repair ecosystem, and should complement, not substitute for, mandatory repairability requirements.

IMPACTS

Extending the period of active use is one of the most direct ways to reduce the environmental footprint of a textile product, and the evidence shows that certain design features are the primary barrier to achieving it.

Common faulty parts, including zippers, buttons, seams, fasteners, and belts, when not easily removable or replaceable, directly result in high repair costs that exceed the perceived value of the garment.⁵¹ France's textile Repair Bonus illustrates both the consumer demand for repair and the structural limits of financial incentives alone: in its first year, the scheme facilitated over 826,000 repairs, yet practitioners have reported that repair costs remain unviable where components are inaccessible or of insufficient quality, a design failure that subsidies cannot compensate for.⁵²

THE JEANS REDESIGN

The Jeans Redesign, launched in 2019 by the Ellen MacArthur Foundation, illustrates what becomes possible when industry is given a clear minimum bar. Developed with input from 80 experts across industry, academia, and NGOs, the project's guidelines have provided a framework for brands, garment manufacturers and fabric mills to transform the way jeans are designed and made.

By 2023, over 100 organisations from more than 25 countries had created jeans meeting the guidelines, bringing 1.5 million pairs to market. Over 70% of participants overcame design challenges to meet the guidelines, and one in nine participating brands redesigned at least 40% of their jeans portfolio. Up to 87% post-consumer recycled content was incorporated into jeans while still meeting durability requirements. More than a third of participants went further, applying circular design principles beyond jeans to other garments, demonstrating that most circular design solutions are not about technical issues, but about design choices.

The experiences of The Jeans Redesign suggest that setting a clear minimum bar does not require all technical uncertainty to be resolved in advance. In 2021, the guidelines' minimum bar was raised mid-project to increase ambition, and participants continued to meet it.⁵³

TABLE 1

ECODESIGN CRITERIA	JRC PROPOSED ECODESIGN REQUIREMENTS	FOCUS OF THIS PAPER	RECOMMENDATION SUMMARY	EXPECTED IMPACTS
Robustness	<p>DO1 – Product with an increased robustness</p> <p>Mandatory information requirement on the robustness of the product (robustness score)</p>	Yes	<ul style="list-style-type: none"> • Convert robustness from an information requirement to a mandatory performance requirement with binding market access thresholds • Raise the wash threshold considerably above five cycles, differentiated by product category and use intensity • Expand parameters to include abrasion resistance, seam strength, and dry pilling • Revise the definition from appearance-based to function-based 	<ul style="list-style-type: none"> • Prevents the worst-performing products from accessing the EU Single Market • Reduces carbon, water, and waste footprints • Rewards prior investment by businesses already meeting higher standards and corrects their competitive disadvantage • Reduces downstream costs through lower EPR fees and municipal waste management expenditure
Recyclability	<p>DO2 – Product with a higher share of weight going to recycling</p> <p>Mandatory information requirement on the recyclability of the product (recyclability score)</p>	Yes	<ul style="list-style-type: none"> • Strengthen the design thresholds embedded in the scoring system, and, where technically possible, convert them into mandatory performance requirements rather than information requirements only • Lower the elastane threshold below the proposed 15% – based on the evidence that mechanical recycling is affected above 10% • Redirect recyclability scores away from consumer-facing labelling and toward supply chain actors • Introduce a structured review mechanism to raise thresholds progressively as recycling infrastructure scales 	<ul style="list-style-type: none"> • Creates a consistent supply of high-quality feedstock, giving recyclers and investors confidence to commit capital • Reduces sorting costs by removing unrecyclable material and increases the share of fibres suitable for textile-to-textile recycling • Builds the secondary material markets that recycled content requirements depend on



TABLE 1 (cont.)

ECODESIGN CRITERIA	JRC PROPOSED ECODESIGN REQUIREMENTS	FOCUS OF THIS PAPER	RECOMMENDATION SUMMARY	EXPECTED IMPACTS
Recycled content	<p>DO3 – Product with higher recycled content</p> <p>3.1 Mandatory information requirement on recycled content</p> <p>3.2 Mandatory performance requirement on the recycled content</p>	Yes	<ul style="list-style-type: none"> • In addition to the mandatory performance requirement for recycled content, phase in higher thresholds over time, differentiated by product category and fibre type • Prioritise post-consumer fibre-to-fibre recycling over pre-consumer waste and open-loop feedstock such as PET bottles • Accommodate open-loop sources during a transition period, subject to a phase-out timeline as closed-loop alternatives scale 	<ul style="list-style-type: none"> • Stimulates demand for secondary material markets and creates the investment case for scaling dedicated textile sorting and recycling infrastructure • Keeps fibres in closed-loop circulation and prevents waste
Environmental/ Carbon footprint	<p>DO4 – Product with a decreased environmental or carbon footprint</p> <p>4.1 Mandatory information requirement on the environmental footprint during manufacturing</p> <p>OR</p> <p>4.2 Mandatory information requirement on the carbon footprint during manufacturing</p>	No	N/A	N/A
Repairability	<p>Under consideration as a voluntary information requirement for brand-offered repair services⁵⁴</p>	Yes	<ul style="list-style-type: none"> • As a first step, upgrade repair service information from voluntary to mandatory • Prioritise a mandatory product-level repairability requirement in a future revision of the Delegated Act, contingent on further research and standardisation work • Link future repairability requirements to the Right to Repair Directive's Annex II mechanism 	<ul style="list-style-type: none"> • Addresses the primary barrier to repair — inaccessible or low-quality components — which subsidies alone cannot compensate for • Expands consumer access to repair services and supports independent repairers and social enterprises across Europe • Delivers environmental, social, and economic co-benefits: reduced waste, local job creation, and lower repair costs for consumers

03

**A FRAMEWORK
FOR CONTINUOUS
IMPROVEMENT**

03 A FRAMEWORK FOR CONTINUOUS IMPROVEMENT

Strong review clauses will be essential if the Delegated Act is to deliver on its ambition over time. A structured review mechanism, triggered at defined intervals, allows thresholds to be raised and the parameter set expanded as harmonisation progresses, standards mature, and infrastructure, particularly for recycling, scales across Member states. This gives businesses the lead time needed to plan investment in design, testing and supply chain adaptation ahead of compliance deadlines.⁵⁵ The Jeans Redesign demonstrated what this can look like in practice: when the minimum bar was raised mid-project, participants continued to meet it, illustrating that industry can adapt to higher requirements when the direction of travel is clear from the outset. This position is increasingly shared across the value chain.⁵⁶

Future revisions should also consider expanding the scope of the ecodesign criteria. First, the current robustness framework can be developed into a more comprehensive durability measure that captures indicators for both intrinsic and extrinsic durability as parameters and methodologies mature. Second, the scope of material requirements could be extended beyond recycled content to include virgin inputs sourced from renewable feedstocks through production approaches that regenerate nature, recognising that for some product categories and fibre types, sustainably sourced virgin inputs will continue to play a role to maintain physical performance, and that a credible framework should incentivise improvement across the full material spectrum. Sustainable renewable material sourcing is already identified as a potential product aspect under the ESPR and is included in existing sectoral green public procurement rules for textiles; addressing it in the Delegated Act would ensure the ESPR provides a coherent basis for public procurement criteria, as the regulation's legal framework intends.⁵⁷



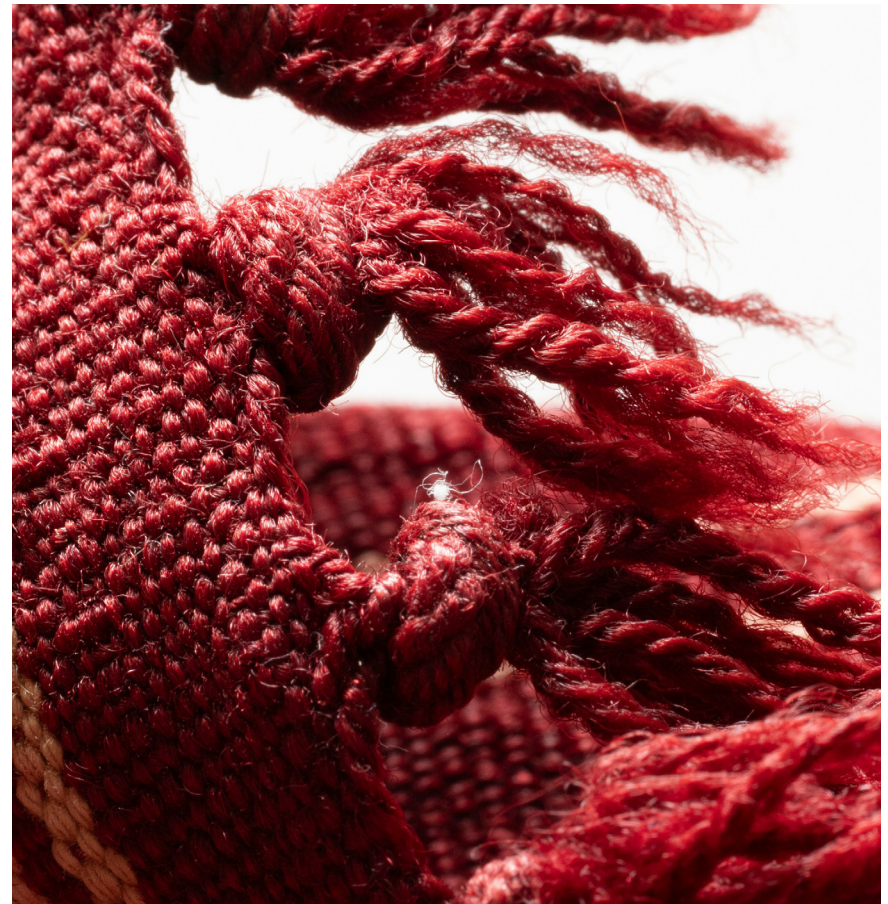
04

**ESPR AND EPR:
COMPLEMENTARY
LEVERS FOR A
CIRCULAR TEXTILE
ECONOMY**

04 ESPR AND EPR: COMPLEMENTARY LEVERS FOR A CIRCULAR TEXTILE ECONOMY

The ESPR Delegated Act for textiles and mandatory Extended Producer Responsibility (EPR)⁵⁸ for textiles are mutually reinforcing policy instruments that reflect the symbiotic relationship between policies to make circular design the norm.⁵⁹ While the ESPR influences circular design upstream, EPR provides the dedicated, ongoing and sufficient funding for the separate collection and sorting of textiles at the end of their use. The European Commission has signalled that ecomodulation — the adjustment of EPR fees based on product environmental performance — will be based on the ESPR framework. This will create a direct financial incentive for circular design based on the criteria set out in the Delegated Act.⁶⁰

The effectiveness of the ecomodulation framework will ultimately depend on the ambition and scope of the ESPR Delegated Act. The current proposal does not provide a sufficiently robust foundation for differentiated EPR fees. Ecomodulation requires a broad set of enforceable product criteria that allow fees to vary according to circular performance. While ecomodulation can draw on information requirements to generate standardised and comparable product data, the price signal it generates is unlikely to be strong enough to drive design change without a mandatory performance floor. A framework based solely on a single mandatory performance threshold for recycled content alone offers only limited scope for differentiation and risks reducing ecomodulation to a narrow compliance mechanism. Including mandatory performance requirements for robustness, recycled content and recyclability would provide a more enforceable baseline from which ecomodulation can differentiate upward, rewarding producers that exceed the minimum bar, and ultimately drive meaningful market change.



ENDNOTES

- 1 [European Commission, Ecodesign for Sustainable Products Regulation \(2024\); European Commission, Regulation \(EU\) 2024/1781 of the European Parliament and of the Council of 13 June \(2024\)](#)
- 2 Scientists at the Joint Research Centre (JRC) carry out research in various fields to provide independent advice to EU policymakers and put science at the heart of European policies.
- 3 [European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone \(2025\)](#)
- 4 [Plakantonaki *et al.*, A review of sustainability standards and ecolabelling in the textile industry \(2023\); Hou *et al.*, Optimal eco-label choice strategy for environmentally responsible corporations considering government regulations \(2023\)](#)
- 5 Robustness was chosen by the JRC as a measure of durability: “‘Robustness’ is the capability of a product to resist, i.e. maintain its physical structure and appearance, after undergoing external stresses, which could be of chemical or physical nature. The concept of robustness mainly differs from the physical durability because there is no reference to the product aging.” [European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone \(2025\)](#)
- 6 [European Commission, Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products \(2009\)](#)
- 7 [European Commission, Ecodesign for Sustainable Products Regulation \(2024\); Carbonfact, For Fashion: Ecodesign for Sustainable Products Regulation \(2025\)](#)
- 8 [European Commission, Regulation \(EU\) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive \(EU\) 2020/1828 and Regulation \(EU\) 2023/1542 and repealing Directive 2009/125/EC \(2024\)](#)
- 9 [European Environment Agency, Textiles and the environment: The role of design in Europe’s circular economy \(2022\); Ellen MacArthur Foundation, A new textiles economy: Redesigning fashion’s future \(2017\)](#)
- 10 [European Commission, Single-Use Plastics \(SUP\) Directive \(2019\); European Commission, Packaging and Packaging Waste Regulation \(PPWR\) \(2025\)](#)
- 11 [European Commission, Ecodesign requirements for energy-related products \(2009\)](#)
- 12 [Horizon Europe, HORIZON-CL6-2026-01-CIRCBIO-02, Advancing recycling technologies for mixed post-consumer textiles waste from blended products \(2026\); European Commission, Demonstrating and deploying innovative collection, sorting-for-reuse and repair systems for textiles at city/region level \(Circular Cities and Regions Initiative topic\) \(2026\); \[Sourcing Journal, EU’s Circular Economy Advancements on the Horizon \\(2025\\)\]\(#\)](#)
- 13 [H&M Group, H&M Group and Vargas Holding launch Syre, a new venture to scale textile-to-textile recycled polyester \(2024\)](#)
- 14 [Inditex, Inditex signs a three-year commitment to buy Infinna™ upcycled textile fiber for over €100 million \(2022\)](#)
- 15 [Business of Fashion, Inditex to Buy Recycled Polyester From US Start-Up \(2023\)](#)
- 16 [Euratex, Circular economy \(n.d.\)](#)
- 17 [European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone \(2025\)](#)
- 18 These information requirements should appear on the Digital Product Passport (DDP), and where specified on the physical label, or on both.
- 19 [European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone, s. 11.1.1, p. 184. \(2025\)](#)
- 20 Based on expert input from Febelsafe (2026)
- 21 ISO 5077, ISO 6330
- 22 ISO 105 series
- 23 ISO 13935
- 24 ISO 12945
- 25 ISO 12947
- 26 Including wovens, jersey, heavy knit, fine knit and mono-materials
- 27 [Ellen MacArthur Foundation, The Jeans Redesign Insights Report 2021-2023 \(2023\); Primark, Circular Product Standard 2.0 \(2026\); H&M Group, Circulator Guide 2.0 \(2023\)](#)
- 28 [Cooper and Claxton, Garment failure causes and solutions: Slowing the cycles for circular fashion \(2022\); Wiedemann *et al.*, Strategies to reduce environmental impacts from textiles: Extending clothing wear life compared to fibre displacement assessed using consequential LCA \(2023\)](#)

- 29 European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone, s. 11.1.2, p. 190. (2025)
- 30 European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone (2025)
- 31 Öko-Institute, Ecodesign for Sustainable Products Regulation: requirements for the ecodesign of textiles and the possible transfer to an ecodesign label (2026); RREUSE, Reusable by Design: RREUSE'S feedback on the 3rd milestone report of the preparatory study on ecodesign for textile apparel (2026)
- 32 H&M Group, Circulator Guide 2.0 (2023)
- 33 Ellen MacArthur Foundation, The Jeans Redesign Insights Report 2021-2023 (2023)
- 34 Primark, Circular Product Standard 2.0 (2026)
- 35 Primark, Circular Product Standard 2.0 (2026); Textile Exchange, Materials Market Report 2025 (2025)
- 36 European Commission, Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC, Article 18 (2024)
- 37 European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone, s. 11.1.3, p. 194. (2025)
- 38 European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone (2025)
- 39 European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone (2025)
- 40 Ellen MacArthur Foundation, The Jeans Redesign Insights Report 2021-2023 (2023)
- 41 Primark, Circular Product Standard 2.0 (2026)
- 42 H&M Group, Circulator Guide 2.0 (2023)
- 43 TESTEX, Arc'teryx and TESTEX Pilot Circularity Certification in the Apparel Industry (2026)
- 44 Textile Exchange, Materials Market Report 2025 (2025)
- 45 European Environment Agency, Management of used and waste textiles in Europe's circular economy (2024)
- 46 "Acknowledging the lack of a reparability framework, the authors understand that, from the perspective of the manufacturer, making information available about repair services could facilitate the reparability of textile apparel, but have not listed it as a design option and potential ecodesign requirements for knitted, denim and other woven products." European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone (2025)
- 47 European Commission, Directive (EU) 2024/1799 of the European Parliament and of the Council of 13 June 2024 on common rules promoting the repair of goods and amending Regulation (EU) 2017/2394 and Directives (EU) 2019/771 and (EU) 2020/1828 (2024); Interreg Europe, The EU Adopts Right to Repair Directive (2025)
- 48 Öko-Institute, Ecodesign for Sustainable Products Regulation: requirements for the ecodesign of textiles and the possible transfer to an ecodesign label (2026)
- 49 H&M Group, Circulator Guide 2.0 (2023)
- 50 Insights based on an interview with repair business CiLAB
- 51 RREUSE, Reusable by Design: RREUSE'S feedback on the 3rd milestone report of the preparatory study on ecodesign for textile apparel (2026); Cooper and Claxton, Garment failure causes and solutions: Slowing the cycles for circular fashion (2022)
- 52 Refashion, Refashion 2024 Activity Report (2025); Textile Exchange, How France's anti-waste laws are boosting small repair shops (2026)
- 53 Ellen MacArthur Foundation, The Jeans Redesign (2019); Ellen MacArthur Foundation, The Jeans Redesign Insights Report 2021-2023 (2023)
- 54 "Acknowledging the lack of a reparability framework, the authors understand that, from the perspective of the manufacturer, making information available about repair services could facilitate the reparability of textile apparel, but have not listed it as a design option and potential ecodesign requirements for knitted, denim and other woven products." European Commission, Joint Research Centre, Preparatory study on textiles for product policy instruments 3rd Milestone (2025)
- 55 European Commission, Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC, Article 18 (2024)
- 56 Ellen MacArthur Foundation, The Jeans Redesign (2019); Modint, Samen verder in Circulair Textiel Advies van de Textieltafel voor een versnelling in de circulaire textielketen (2026)

- 57 Fair Trade Advocacy Office, [Shaping EU ecodesign rules for the garment sector: our feedback on the JRC's Preparatory Study on Textile Products \(2026\)](#); European Commission, [Regulation \(EU\) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive \(EU\) 2020/1828 and Regulation \(EU\) 2023/1542 and repealing Directive 2009/125/EC, Annex I \(2024\)](#)
- 58 EPR for textiles will be entered into force for all EU member states by April 2028, European Commission, [Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives \(2025\)](#)
- 59 Ellen MacArthur Foundation, [Universal Circular Economy Policy Goals \(2021\)](#), Ellen MacArthur Foundation, [Keep it in use: Retain resource value and unlock economic opportunities \(2025\)](#); Ellen MacArthur Foundation, [Design it right: Make circular systems the norm \(2026\)](#)
- 60 European Commission, [Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, Article 22c \(2025\)](#)

ACKNOWLEDGEMENTS

CORE PROJECT TEAM

Sophie Moggs

Policy Officer, Fashion & Textiles,
Policy & Institutions, Lead Author

Valérie Boiten

Senior Policy Officer, Fashion &
Textiles, Policy & Institutions

Lenaïc Gravis

Editorial Development Manager

Sarah O'Carroll

Institutions Lead, Policy & Institutions

WIDER TEAM

Jocelyn Blériot

Executive Lead, Policy & Institutions

Eline Boon

EU Policy Lead, Policy & Institutions

Beth Mander

Programme Manager, Fashion & Textiles

Andres Oliva Lozano

Senior Research Analyst, Fashion & Textiles

Hannah Parris

Modelling & Insights Specialist, Fashion & Textiles

Helena Pribyl

Project Manager, Fashion & Textiles

Nöelle Smits van Waesberghe

Project Manager, Strategy - Fashion & Textiles

Gilone Traub

Partnerships Manager, Revenue

Sofia Voudouoglou

Senior Strategic Communications Executive

Carsten Wachholz

Business Policy Engagement Lead, Policy & Institutions

CONTRIBUTORS

The Ellen MacArthur Foundation would like to thank the organisations and individuals who have contributed to developing this publication with their constructive input. Our thanks go to our partners and members, as well as key industry stakeholders, whose expertise and feedback strengthened this publication.

Decathlon, Sustainability and Circularity Teams

Euratex, Mauro Scalia, Director Sustainable Businesses

Fair Trade Advocacy Office, Alena Kahle, Senior Policy and Project Coordinator

Febelsafe, Jo Van Landeghem, Secretary General

Manteco, Giuseppe Picerno, Head of Innovation and Sustainability

Ohana Public Affairs, Analoli del Cueto, Consultant,

RREUSE, Simone Cimadomo, Policy and Project Officer

Please note that contribution to the publication, or any part of it, or any reference to a third-party organisation within it, does not indicate any kind of partnership or agency between the contributors and the Foundation, nor an endorsement by that contributor or third party of the publication's conclusions or recommendations.

ABOUT THE ELLEN MACARTHUR FOUNDATION

The Ellen MacArthur Foundation is an international charity that develops and promotes the circular economy in order to tackle some of the biggest challenges of our time, such as climate change, biodiversity loss, waste, and pollution. We work with our network of private- and public-sector decision makers, as well as academia, to build capacity, explore collaborative opportunities, and design and develop circular economy initiatives and solutions. Increasingly based on renewable energy, a circular economy is driven by design to eliminate waste, circulate products and materials, and regenerate nature, to create resilience and prosperity for business, the environment, and society.

Further information: ellenmacarthurfoundation.org

DISCLAIMER

This publication has been produced by the Ellen MacArthur Foundation (the “Foundation”). The Foundation has exercised care and diligence in preparing this publication, based on information it believes to be reliable, but makes no representations and gives no warranties, assurances or undertakings (express or implied) in connection with it or any of its content (as to its accuracy, completeness, quality, fitness for any purpose, compliance with law, or otherwise). The Foundation does not monitor or moderate any external websites or resources linked or referred to in this publication. This publication does not purport to be comprehensive and none of its contents shall be construed as advice or requirement of any kind. Any reliance on it is at reader’s own discretion and risk.

To the maximum extent permitted by any applicable law, the Foundation, each entity within its group and each of its associated charities and their respective employees, workers, officers, agents and representatives disclaim in full all liability for any loss or damage of any kind (whether direct or indirect and whether under contract, tort, breach of statutory duty or otherwise) arising under or in connection with this publication or any of its contents.

The Foundation is not a supplier of, or otherwise affiliated with, and does not recommend or endorse, any third party or the products or services referred to in this publication.

All multi-stakeholder activities described in this publication are designed and conducted in accordance with applicable laws.



© COPYRIGHT 2026
ELLEN MACARTHUR FOUNDATION

www.ellenmacarthurfoundation.org

UK Charity Registration No.: 1130306
OSCR Registration No.: SC043120
UK Company No.: 6897785
EU Transparency No.: 206816021848-17