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## Closing the loop for textiles

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## Executive summary

The coming years will be pivotal for companies operating in the textiles industry within the EU market as the implications of new EU sustainability regulations are stark. Failing to become more sustainable will leave them vulnerable to the loss of revenue and reputation, as well as to litigation and possible penalties, including bans on placing products on the EU market.

The textiles industry accounts for 10% of humanity's carbon emissions – more than all international flights and maritime shipping combined.<sup>1</sup> The industry is also the world's secondlargest consumer of water, responsible for 20% of global industrial water pollution.<sup>2</sup> The industry generates 92 million tonnes of textile waste annually<sup>3</sup>. Additionally, less than 1% of material used to produce clothing is recycled into new clothing.<sup>4</sup> Given the industry's immense environmental impact, EU policymakers have prioritised regulatory actions that target it, ultimately forcing companies to adopt circular business models and significantly reduce their environmental impact. The coming years will be pivotal for companies operating in the textiles industry within the EU market as the implications of new EU sustainability regulations are stark. Failing to become more sustainable will leave them vulnerable to the loss of revenue and reputation, as well as to litigation and possible penalties, including bans on placing products on the EU market.

Our analysis unpacks the most pressing issues for the textiles industry and considers the impact of three EU flagship regulations which target the lifecycle of products, spanning product design, distribution and end-of-life waste disposal. Even though the key pieces of legislation such as the Ecodesign for Sustainable Products Regulation (ESPR) and the EU Waste Shipments Regulation entered into force earlier this year, companies are faced with significant uncertainty regarding critical details that will shape their regulatory response. The European Commission (EC) will publish those details by early 2026 (at the latest) in the form of Delegated Acts (DAs) that will give companies further clarity on what they need to do. Against this background, our aim is to provide companies with a set of 'no regrets' actions they should take now to prepare for the new requirements and give clarity on the areas they will need to focus on further down the line.

#### Making circular design the norm

The ESPR introduces requirements related to the design and performance of products that are placed on the EU market. Companies will need to make strategic choices regarding the key eco-design parameters such as durability, recyclability, repairability and the use of recycled content in their products, ultimately affecting their product portfolio. They will also need to ensure that these choices are aligned with their brand value and market positioning.

By early 2026, companies will gain clarity regarding the specifics of eco-design requirements for textiles. Before then, they should take steps to increase their knowledge of the sustainability characteristics of the products they currently manufacture or sell. Companies can take several actions to understand their current alignment with potential sustainability requirements. These could include assessing the sustainability of their product materials, evaluating product durability and analysing whether any components are detrimental to sustainability concerns. Further, companies can also examine aspects such as the reparability and recyclability of their products. Finally, they should explore alternatives to enhance products' performance in these areas.

#### Enhancing traceability across supply chains

The Digital Product Passport (DPP) will require companies to disclose detailed product-level data across a product's lifecycle, including raw material provenance, the carbon and environmental footprint and supplier information. The DPP also aims to encourage consumers to choose sustainable products by making environmental information available to them. Crucial details regarding the granularity of data required for the DPP or application timelines for textile products are yet to be determined by the EC. Further, complex value

<sup>1.</sup> Is fashion bad for the environment?, World Economic Forum, 2020.

<sup>2.</sup> Ibid.

<sup>3.</sup> Pulse of the fashion industry, Global Fashion Agenda, The Boston Consulting Group, Boston, 2017.

<sup>4.</sup> A new textiles economy: Redesigning fashion's future, Ellen MacArthur Foundation, 2017.

chains, limited supplier visibility, and lack of standardised platforms for information flow in the textiles industry will make implementing DPPs a challenging exercise for companies. Nevertheless, by 2028 at the latest, the DPP will likely be used as a communication tool relevant for a variety of stakeholders such as distributors, remanufacturers and consumers, aiding companies' efforts to mitigate greenwashing risks.

Despite these uncertainties and difficulties, companies should prioritise 'no regrets' actions and take some initial steps to enhance traceability across their supply chains. These could include performing a comprehensive mapping of their value chains and identifying product lines which may have data gaps. Enhanced value chain insights could be used to improve suppliers' practices, for example by amending production machinery to decrease the current environmental impact or to advance material substitution. Companies could also evaluate their engagement strategy with suppliers and strengthen due diligence processes within the company. Such efforts will help them prepare for compliance with the Corporate Sustainability Due Diligence Directive (CSDDD) which require companies to identify, assess, mitigate and disclose negative environmental and human rights impacts within their value chains.

#### Managing products' end-of-life

Textiles waste generation is a persistent challenge within the EU, with approximately 6.95 million tons produced annually<sup>5</sup>. 1.7 million tonnes in 2020. As of 2019, most of these textiles were sent to Africa (46%) and Asia (41%), where they were often reused locally or downcycled. However, textiles unsuitable for reuse frequently end up in open landfills and unmanaged waste streams, with less than 1% being recycled.<sup>6</sup>

Targeted amendments to the EU Waste Framework Directive will harmonise Extended Producer Responsibility rules (EPR) for textiles across the EU. The Directive will implement a so-called 'polluter pays' principle, ultimately making producers liable for managing waste at the end of product lifecycle and pay fees for waste management and recycling from 2027. Those fees will be based on eco-design parameters which are yet to be determined by the EC.

In addition, the newly introduced EU Waste Shipments Regulation aims to address textiles waste export challenges and imposes stringent rules on companies that export textiles waste outside and within the EU. For example, from 2027, the Regulation will ban the export of non-hazardous waste to countries outside of the EU that are unable to demonstrate they manage waste in an environmentally sound manner without causing harm to human health. In general, waste shipments within the EU destined for disposal in another Member State (MS) will also be prohibited.

In the near term, companies should model and assess the impact of the prohibition of textiles waste exports on their operations as they transform their business models in line with circular economy principles, based on what they know today about future regulation. Regulatory requirements will likely oblige companies to use a fixed amount of recycled content in their products. For this reason, maintaining or creating a link between waste recycling facilities and production clusters will be essential. Companies should also anticipate higher EPR costs as the scheme is rolled out across the EU, since in the medium term considerable amounts of textile waste will likely be collected in the EU. Further, they should also assess the extent to which their efforts under ESPR could help reduce EPR costs as sustainable products are likely to incur lower eco-modulation fees.

#### Capturing value from a circular business transformation

New regulatory requirements are designed to make companies accountable for the environmental externalities of their activities and products throughout their lifecycle. Investments needed to make product-level eco-design changes, establish a DPP and anticipated additional costs associated with waste management, such as EPR schemes, will increase the cost of doing business in the EU and likely challenge the profitability of companies operating in the textiles industry.

In this context, even in the absence of important details of the above-mentioned regulations, there is no doubt that textiles companies operating in the EU will need to transform their businesses in line with circularity principles. By 2030, business models that secured market leadership in the past may no longer succeed in the EU, due to these new regulatory requirements and the likelihood of changes in consumer sentiment that push companies towards sustainability. Ultimately, companies are faced with balancing short-term compliance costs against longer-term strategic gains. Those that adopt an effective strategy early are likely to stay competitive and reap the benefits, such as securing valuable cross-sector partnerships, generating additional revenue streams and achieving cost savings in the years to come.



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<sup>5.</sup> Management of used and waste textiles in Europe's circular economy, European Environment Agency 2024.

<sup>6.</sup> EU exports of used textiles in Europe's circular economy, European Environment Agency 2023.

### Impact of EU circularity regulations on textiles industry

- EU policymakers have prioritised regulatory actions, forcing companies to adopt circular business models and significantly reduce their environmental impact.
- New sustainability regulations are interlinked and target different parts of companies' value chain, necessitating changes to the way they design, manufacture, distribute and manage the end-of-life disposal of their products.



#### Questions Boards should be asking as they plan for the circular transformation of their companies

How can we optimise compliance across the multiple regulations affecting our company?

#### 02

How will we engage suppliers in our company's circular transformation?

#### 03

How can we gather reliable data across out value chain to inform our business strategy?

#### 04

What steps can we take to embed circularity into our operations and build more resilient supply chains, while ensuring a smooth transition and minimising disruption to our existing business?

#### 05

What investments does our company need to make in its circular transformation and how will they influence our company's financial strategy?

#### 06

What revenue-generating opportunities does our circularity strategy present?

01

## Introduction

In response to the significant environmental impact generated by the textiles sector, the EU has prioritised textiles in regulations designed to require companies to adopt circular business models and reduce the environmental footprint of their products from production to disposal.

According to European Commission (EC) estimates, the consumption of clothing is expected to increase by 63% by 2030, from 62 million tonnes in 2023 to 102 million tonnes in 2030.<sup>7</sup> Clothing comprises the largest share of European Union (EU) textiles consumption (at 81%) and the trend of using clothes for shorter periods before throwing them away contributes the most to unsustainable patterns of overproduction and overconsumption in the economy.<sup>8</sup> The pattern is even more concerning considering that, of all the waste generated, and despite the export of high-quality waste for re-circulation in second-hand markets, only 1% of used clothes are recycled into new clothes, while 87% is incinerated or landfilled.

In response to the significant environmental impact generated by the textiles sector, the EU has prioritised textiles in regulations designed to require companies to adopt circular business models and reduce the environmental footprint of their products from production to disposal.

This paper unpacks the implications of EU sustainability regulations for companies that operate in or place their products on the EU textiles market. In particular, the paper analyses the implications of:

- the Eco-design for Sustainable Products Regulation (ESPR);
- the Waste Shipments Regulation (WSR); and
- amendments to the EU Waste Framework Directive, which mandates harmonised Extended Producer Responsibility (EPR).

Even though the key pieces of legislation such as the ESPR and the WSR entered into force earlier this year, the absence of critical details means that companies face significant uncertainty over how to shape their regulatory response. The EC will publish those details by early 2026 at the latest in the form of Delegated Acts (DAs) that will give companies further clarity on what they need to do.

Nevertheless, it is clear that in the medium term these regulations will affect the way textiles companies design, produce and distribute their products. It will be mandatory in future for companies to meet eco-design requirements for textiles in order to place products within the EU market. The regulations will also introduce a new set of activities for companies to implement in their downstream operations, including collection of post-consumer waste and developing recycling flows and technology such that products can be easily disassembled and materials recovered with such quality that allows them to replace virgin materials in the manufacturing of new products.

Companies need to rethink and reshape their business models through the lenses of their product portfolios, operation models and their financial strategy. Planning early for the transition to a circular business model is essential to manage risks and magnify impact capturing opportunities for differentiation and gaining a competitive advantage in the market. Doing so will also be aligned with companies' wider climate strategy and catalyse efforts to fulfil their net-zero commitments. Those responsible for spearheading business strategy, sustainability, supply chain and extended enterprise operations, risk and compliance, will need to plan ahead to ensure the transition in a manner that maintains the brand identity and value of the business.

<sup>7.</sup> EU Strategy for Sustainable and Circular Textiles, European Commission, 30 March 2022.

<sup>8.</sup> Ibid.

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## Designing for the future: understanding the impact of eco-design requirements under the ESPR on textiles products

Companies will need to make a strategic choice when prioritising one eco-design parameter over another or considering what actions must be implemented to address challenges while fulfilling all the ESPR requirements.

The ESPR aims to make sustainable products the norm by requiring companies to reduce the carbon and environmental footprint over their lifecycle. It introduces provisions related to eco-design and performance of products that are placed on the EU market, as well as information requirements regarding their environmental impact.

The performance requirements aim to improve product parameters such as durability, use of recycled content and recyclability, among others. The information requirements mandate companies to communicate information through a Digital Product Passport (DPP) on a product's performance against one or more of the ecodesign parameters and/or to provide information necessary to enable tracking of substances of concern<sup>9</sup> throughout the products' lifecycle. Alongside ensuring products meet eco-design requirements, companies will also have to disclose information on unsold consumer products, including number of items per category, reason for discarding, and means of disposal.

#### Box 1: Implementation milestones and product parameters of the ESPR

18 July 2024	19 April 202	5	Q2-Q3 2025	Q4 2025 – Q1 2026	Q2-Q3 2027
Entry into force Latest adoption date for ESPR working plan by the EC detailing timelines for product-specific DAs		Ban on destruction of unsold textiles and footwear enters into force	Expected adoption of DA on textiles	First ESPR requirements start to apply to textiles	
<b>Product parame</b> The ESPR lists the parameters that p or product groups textiles, will be reg	ters following products s, such as gulated on:	<ul> <li>Durability</li> <li>Reusability</li> <li>Reparability</li> <li>Possibility of maintenance refurbishmen</li> </ul>	<ul> <li>Presence of substances of concern</li> <li>Energy use or ene efficiency</li> <li>Resource use or resource efficience</li> </ul>	<ul> <li>Recycled content</li> <li>Possibility of remanufacturing an ergy recycling</li> <li>Possibility of recovery of material</li> </ul>	<ul> <li>Environmental impacts, including</li> <li>carbon and environmental footprint</li> <li>Expected generation of waste materials</li> </ul>

The particulars on application, implementation and extent of impact on current product portfolios are subject to the finalisation of the product-specific DAs that will be published by the EC. It is likely that EU policymakers will consider industry-led sustainability initiatives and certifications as they develop detailed eco-design requirements. Selected available certifications (e.g., Product Environmental Footprint Category Rules, EU Ecolabel, Nordic Swan, GOTs, Oekotex-100) have already been considered by the EU Joint Research Centre (JRC) – a body that provides evidence-based scientific support to the EU policymaking process.<sup>10</sup>

To prepare for the new requirements, companies should review their current design approach to ensure they are considering all the relevant factors. Companies need to understand where their product portfolios stand in relation to the requirements, to assess which actions they should take and evaluate the impact those actions will have on products and business model. As they undertake this analysis, companies need to ensure a holistic view of the impacts throughout the life cycle of the product, , since some choices that enhance certain eco-design parameters at one point in the lifecycle may be detrimental to eco-design parameters at another point. For example, increasing the recycled content of textiles could reduce the durability of the textiles, accelerating their end-of-life. Companies will need to make a strategic choice

9. Substances of concern are those listed in the Regulation on the registration, evaluation, authorisation and restriction of chemicals (REACH) and Annex VI of the Classification, Labelling and Packaging (CLP) Regulation. For more information refer to Chemicals Strategy for Sustainability Towards a Toxic-Free Environment, European Commission, October 2020.

10. Circular Economy Perspectives in the EU Textile sector, JRC, June 2021.

when prioritising one eco-design parameter over another or considering what actions must be implemented to address these challenges while fulfilling all the ESPR requirements. This choice will need to be made through robust indicators that demonstrate the effectiveness, correlation and impact of different eco-design initiatives. The table below provides companies with a set of 'no regrets' actions they can take now to prepare for the new requirements, based on selected eco-design parameters listed in the ESPR. It also lists actions that companies could consider on a risk-based approach, and highlights steps that will likely require further regulatory detail.

Ecodesign parameter	No regrets actions	Risk- based approach	Actions requiring further detail
Durability	Conduct technical assessment of the product or material against relevant initiatives or certifications such as the Product Environmental Footprint, the EU Ecolabel, Oekotek 100, or the Environmental Coalition for Standards.	Establish testing protocols for key durability parameters aligned with industry standards such as the product Environmental Footprint, the EU Ecolabel, Oekotek 100, or the Environmental Coalition for Standards. Identify if further action is required to enhance durability over and above ensuring regulatory compliance, to align with brand identity and consumer expectations of products.	Ascertain the specific tests and conditions applicable to garments.
Recycled content	Analyse the percentage of recycled content currently incorporated in marketed textiles. Explore potential avenues for increasing recycled content in products.	Identify availability of recycled material in the supply chain and ensure the quality of recycling process in place is sufficient to maintain durability and technical properties of textiles. Identify potential limitations for increasing recycled content (if applicable) that may harm or compromise the product's functionalities.	Determine the required increase in recycled content in their products and plan for necessary adjustments.
Repairability, possibility to repair and maintain	Explore whether the current design hinders the repairability, care and maintenance of the textiles. Analyse current mechanisms for enhancing reusability such as second-hand platforms, repair services, customised merchandise, and providing spare parts (buttons, hooks, etc) that match with the product's design.		
Recyclability	Understand how design elements in textiles hinder their recyclability. This includes analysing how components like zippers, buttons and lace may impact ease of disassembly and affect convenience of recycling. Explore technological solutions available on the market for recycling materials currently in circulation.	Explore downstream alliances to understand current limitations and develop and scale solutions that increase the recovery rates of different waste streams and materials.	Determine which materials and /or substances of concern will be prohibited from usage due to recyclability concerns.
Resource efficiency	Understand how the product is being designed and produced to maximize resource efficiency and minimize waste generation. Identify opportunities to further incorporate new technologies such as Artificial Intelligence, 3D printing, digital design and prototyping to improve material efficiency.	Identify steps and measures to enhance efficient usage of materials in production.	Assess if resource efficiency needs to be within a specific threshold and plan for necessary adjustments.
Product impact measurement गगगा	Map the value chain to understand information availability and identify data gaps. For products with available data, if not done yet, start collecting the data and calculate environmental impact of products aligned with industry standards (e.g. PEFCR). For products with data gaps, begin by assessing potential solutions to gather necessary data to calculate environmental impact of products.	Understand where in the organizational processes impact measurement results should be incorporated for decision-making and the available capabilities (people, processes, and technology).	Make necessary amendments to the methodology for calculating product environmental impact after technical details are made available through DA for textiles
Expected generation of waste materials	Identify sources of waste generation end-to-end across value chain and measure expected waste generated.	Understand what is currently happening with the generated waste and the main issues associated with its recovery.	Assess if material waste generated needs to be within a specific threshold.

Certain factors such as complexity and limited visibility of value chains, together with the lack of standardised platforms for information flow in the textiles industry will make creating DPPs a challenging exercise for companies.

Enhancing traceability for products is an essential step to improve product and value chain understanding and be able to assess the changes that need to be made to meet expected eco-design requirements Traceability is the ability to identify and trace the history, distribution, location and application of products, parts, and materials to ensure the reliability of sustainability claims<sup>11</sup>.

The DPP aims to facilitate end-to-end traceability of a product throughout its value chain by making available information that is relevant to all the stakeholders. It requires companies to capture and disclose information about a product's environmental impact throughout its lifecycle. It also mandates companies to communicate information on each stage of production, including on raw material sourcing and manufacturing location. Although all information captured for a DPP need not be disclosed publicly, sustainability-related information of the product that is relevant for different stakeholders such as distributors, customers, remanufacturers etc. must be made available by companies placing their products in the EU market.

#### **DPP** explained

While the ESPR highlights the type of information that needs to be captured in a DPP, specific details pertaining to it will be clarified through DAs expected by early 2026. The DAs will include provisions on the timeline for application, clarify the granularity of data for which sustainability information needs to be conveyed (i.e., at product level or batch level), and specify the information requirements that need to be communicated through a DPP. By 2028 at the latest, the DPP will likely be used as a communication tool relevant for variety of stakeholders such as distributors, remanufacturers and consumers, aiding companies' efforts to mitigate greenwashing risks.

Certain factors such as complexity and limited visibility of value chains, together with the lack of standardised platforms for information flow in the textiles industry will make creating DPPs a challenging exercise for companies. Challenges in improving traceability across value chains often stem from a company's difficulty to track the supply chain beyond the level of direct suppliers and the inability to track the product destination aftersale. For example, in the case of the downstream value chain, after used textiles typically travel across multiple intermediary countries before reaching their final destination for waste processing. Similarly, for the upstream value chain, sourcing of materials and manufacturing of textiles is often unknown given the activity of numerous traders in the supply chains that further hinder traceability to the end of the supply chain.

As first steps, even in the absence of detailed regulatory requirements, companies should consider performing a

comprehensive mapping of their value chains. They should start identifying production locations including detailed information on production sites, as well as production processes and product lines which may have data gaps.

Further, companies should also prioritise the assessment of whether there are any substances of concern such as Persistent Organic Pollutants (POPs) and per- and polyfluoroalkyl substances (PFAS) across their products' lifecycle and if there are, assess quantities, location of occurrence, etc. Newly adopted measures under the REACH regulation - the EU chemicals legislation - signal a shift towards eliminating harmful substances from consumer products.<sup>12</sup> For example, the Regulation now bans the sale and use of PFHxA, a type of PFAS, in consumer textiles such as rain jackets. The DA for textiles under the ESPR could introduce further restrictions on textiles containing substances of concern.

In general, when evaluating solutions to track a product's lifecycle, companies should consider their adaptability - this might mean the need to modify or build systems to collect relevant data that are aligned with local market infrastructure capabilities-. Engaging suppliers and raising awareness about required data will be important in this process. This extends to explaining the benefits and potential consequences of noncompliance to relevant suppliers, which in some cases could result in termination of the business relationship. In this context, suppliers might be willing to consider investments in more advanced technological systems for data collection. Suppliers might also decide to take part in regional solutions that could then be integrated into their own operations and plugged into data collection systems used by their business partners.

<sup>11.</sup> A Guide to Traceability: A Practical Approach to Advance Sustainability in Global Supply Chains, United Nations Global Compact, 2014.

<sup>12.</sup> Commission restricts use of a sub-group of PFAS chemicals, European Commission, 2024.

Enhanced value chain insights could be used to improve suppliers' practices, for example by amending production machinery to decrease the current environmental impact or to advance material substitution. These insights can also help companies identify and mitigate transitional risks in their adjustment to a circular model, and to address other regulatory requirements. For example, the insights obtained could limit the risk of purchasing virgin materials mislabelled as 'recycled', in turn reducing the risk of violating sustainability regulations such as the Green Claims Directive (which, when finalised, will hold companies accountable for unsubstantiated environmental claims). More broadly, given customers' growing concern for environmental impacts, errors or ambiguity about a product's lifecycle are increasingly a source of reputational risk.

In addition, advancing in value chains traceability can help companies prepare to meet the requirements of the Corporate Sustainability Due Diligence Directive (CSDDD) if they invest early in an assessment of their current due diligence processes. CSDDD requires companies operating in the EU market to identify, assess, mitigate and disclose negative environmental and human rights impacts within their value chains. The compliance challenge for companies in the textiles sector will be significant, especially for large companies with extensive, multi-national value chains. The largest companies are expected to have to comply with these rules from 2027, a relatively tight timeline.



# Rethinking the operating model: linking the end-of-life of textiles with production clusters

As a first step, companies should model how the prohibition of textiles waste exports will affect their operations to recover material, and ensure they retain the link with their production clusters.

The sustainability requirements being introduced extend the responsibilities of companies to include post-consumer waste management for textiles products placed on the EU market. Companies need either to set-up a business stream to process end-of-life management of textiles products or rely on a third party, and then ensure that recycled materials can be linked back to their production clusters.

As companies identify which product-level design changes they need to make to meet the ESPR provisions, they also need to consider how their operating model may need to adapt to accommodate these new requirements. For this, considering the Revisions to the EU Waste Framework Directive and the WSR will be especially important. These new provisions introduce mandatory and harmonised EPR schemes for textiles across Member States (MS) and restrict companies' ability to ship waste outside and within the EU unless they meet certain conditions.

Boxes 2 and 3 below provide details on the upcoming regulatory requirements for both pieces of legislation.

#### Box 2: Implementation milestones and requirements of the amendments to the EU Waste Framework Directive

July 2023	Q1 2025	Q1-Q2 2025	1 January 2025	2027
Proposal published	Expected finalisation of proposed amendments	Expected entry into force	MS required to collect textile waste separately	Expected application of EPR rules

Based on the existing EU Waste Framework Directive, MS are obliged to set up separate collection streams for textile waste by the end of 2024. The targeted revisions to the Directive introduce EPR and list requirements that MS must ensure textiles producers follow. New rules will:

- Introduce mandatory and harmonised EPR rules for textiles across MS, with eco-modulation fees (charged for waste management and recycling). EPR implements the 'polluter pays' principle and makes producers liable for managing waste at the end of the product life cycle. In an EPR scheme, producers are liable to make payments to a Producer Responsibility Organisation (PRO), which carries out waste management, and to pay eco-modulation fees. For example, easily recyclable products are expected to incur lower fees, whereas hard-to-recycle products may incur higher eco-modulation fees. The EC will adopt a DA for calculating eco-modulation fees based on eco-design parameters listed in the ESPR.
- Oblige producers in scope to designate a PRO to fulfil their EPR obligations.
- Emphasize waste hierarchy, where waste prevention is the top priority, followed by reuse and recycle. Sending textiles to landfill should be the last resort.
- Require MS to ensure that post-consumer textiles and footwear products are separately collected such that sorting operations comply with the following requirements:
  - The sorting operations generate textiles for reuse and preparation for reuse, in alignment with the waste hierarchy<sup>13</sup>.
- Sorting for reuse operations group textiles items, considering an appropriate level of granularity, separating items that are for direct reuse from those that require further preparation to reuse.
- Items that are assessed as not suitable for reuse are sorted for recycling and specifically for fibre-to-fibre recycling (subject to technological progress).

Once the amendments are formally approved by the European Parliament (EP) and the European Council, they will be published in the Official Journal of the EU. Following this, MS will have 18 months to transpose the requirements into national legislation and bring into force necessary measures to ensure EPR can be rolled out.

<sup>13.</sup> Waste hierarchy is defined in the Waste Framework Directive. The hierarchy sets out the order in which waste management measures need to be prioritised.

Its outlined priorities are as follows – (1) prevention, (2) preparing for re-use, (3) recycling, (4) recovery, and (5) disposal.

#### Box 3: Implementation milestones and requirements of the WSR

Q2 2024	Q2 2026	Q4 2026	Q2 2027
Entered into force on 20 May 2024	Regulation applies	Prohibition of export of plastic waste to non- OECD countries applies from 21 November 2026 <sup>14</sup> By 21 November 2026 EC will adopt a list of non-OECD countries to which exports of non- hazardous waste for recovery is authorized.	Prohibition of export of non- hazardous waste for recovery to non-OECD countries applies from 21 May 2027

The WSR strengthens rules for the export of waste outside the EU and introduces new rules for waste shipments within the EU. For export of waste outside the EU, the Regulation will:

- Require non-OECD countries receiving non-hazardous waste for recovery to demonstrate that they can treat it in an environmentally sustainable manner and without causing harm to human health. Additionally, the EC will evaluate whether international labour and worker rights conventions are met and draw up a list of approved countries, which will be updated by the EC every two years. Companies cannot ship waste to a country if it is not included in the list.
- Require exporters of waste to ensure that the waste management facility in the destination country has been audited by a specialised third-party every two years<sup>15</sup>.
- Prohibit the export of plastic waste to non-OECD countries from 21 November 2026. In 2019, the EU exported 1.5 million tonnes of plastic waste, mostly to Asian countries such as Malaysia, Indonesia, Vietnam, India and China.<sup>16</sup>
- Mandate EC to monitor the export of plastic waste and/or non-hazardous waste to OECD countries to ensure they do not cause damage to the environment or human health. EC will have an option to suspend exports of textiles waste to an OECD country if that country does not treat waste according to the prescribed environmental standards.

For waste shipments inside the EU, the Regulation will prohibit shipments destined for disposal in another EU country except if agreed and authorised under the prior written notification and consent procedure.

- 14. The prohibition will apply for 2.5 years, until 21 May 2029, after which non-OECD countries may submit a request to the Commission indicating willingness to receive plastic waste and ability to treat it in an environmentally safe manner.
- 15. Waste facilities receiving exports from the EU need to be audited by an independent third party certified against relevant international standards such as ISO 19011:2018 or ISO/IEC 17020:2012. They should also have prior experience auditing waste facilities, understand how waste treatment works, and possess knowledge on environmental and work safety rules.
- 16. Plastic waste shipments: new EU rules on importing and exporting plastic waste, European Commission, 22 December 2020.
- 17. Refashion, 2021 Activity report, 01 July 2022.

18. Textiles and the environment: the role of design in Europe's circular economy, European Environment Agency, 10 February 2022.

Whilst the amendments to the EU Waste Framework Directive will mandate the roll-out of EPR schemes across the EU, such schemes already operate within some MS, for example in France. In 2021, Refashion, the organisation responsible for running the EPR scheme in France received €52 million in fees from companies for approximately 245,000 tonnes of post-consumer use textiles collected.<sup>17</sup> Companies should therefore assess the impact of higher EPR costs to account for the planned EPR roll-out across EU MS as it will result in higher quantities of post-consumer use textiles being collected. Companies should also assess the extent to which their efforts under ESPR could help reduce EPR costs as sustainable products are likely to incur lower eco-modulation fees. Additionally, those that already have business streams to collect post-consumer use products and process textiles waste need to assess what additional processes may be required to improve coverage.

Meanwhile, larger amounts of post-consumer waste will likely be collected in the EU as MS prepare to roll-out EPR schemes for textiles. Ultimately, taking responsibility for textiles waste collection and management may prove to be beneficial for companies as potentially it will help increase waste collection levels, and subsequently result in larger quantities of recycled material that can be incorporated into new products.

As of 2019, 1.7 million tonnes of used textiles collected were exported from the EU, out of which 41% was exported to Asia, where they were sorted and processed in dedicated economic zones or re-exported for recycling<sup>18</sup>. However, this model will be disrupted once the WSR applies as it restricts companies' ability to ship waste outside the EU unless the country receiving the waste meets certain conditions demonstrating it can treat waste in an environmentally friendly manner. Currently, most textiles companies process waste and produce clothing in third countries. Therefore, as a first step, companies should model how the prohibition of textiles waste exports will affect their operations to recover material, and ensure they retain the link with their production clusters. Based on what they know today about future regulations, companies should assess whether they need to reshape their traditional operating model and where the opportunity for waste transformation lies. Even though the EC is yet to publish the list of non-OECD countries to which exports of non-hazardous waste for recovery is prohibited, companies can take a risk-based approach and perform their own preliminary analysis against the Basel Convention.<sup>19</sup> When determining the course of action, companies could also consider the following challenges and opportunities for scaling up waste transformation in the EU and in third countries:

	Scaling up in EU MS	Scaling up in third countries		
Challenges	<ul> <li>High investment necessary to create sufficient infrastructure capacities for waste management, recycling and recovery.</li> </ul>	<ul> <li>High-carbon energy mix (relative to EU countries) will result in higher environmental impact for recycling processes.</li> </ul>		
	<ul> <li>High incremental costs for waste transformation. Since value of waste at collection is low, the investment necessary to produce secondary material will result in lower margins on recovered material.</li> </ul>	<ul> <li>Limited supply chain visibility increases social and environmental risk potential due to uncertainties surrounding the social and ethical aspects of production, such as healt and safety concerns. If waste cannot be processed without risk of harm to human health and international labour and worker rights conventions, the third country could face restrictions by the EU for non-hazardous waste exports.</li> </ul>		
	• Higher labour costs.			
Opportunities	Synergies and industrial symbiosis with other companies to set-up recycling/material	<ul> <li>Relatively lower investment needed due to lower capital costs.</li> <li>Synergies and industrial symbiosis with other companies producing in third countries, to set-up recycling/material recovery units closer to third-country production hubs.</li> </ul>		
	recovery units closer to consumption market.			
	<ul> <li>Financial benefits from EU subsidies and investments in the green transition.</li> </ul>			
	<ul> <li>Increased visibility and control over the waste management systems and working</li> </ul>	<ul> <li>Proximity to third-country production clusters and ease in operational efforts.</li> </ul>		
	conditions.	Engaging in a just transition by supporting the economic and industrial development		
	<ul> <li>Reduced carbon footprint of products as shipping distance from production site to market decreases.</li> </ul>	of third countries (job creation, technological innovation etc.).		
	<ul> <li>Low-carbon energy mix (relative to third countries) will result in lower environmental impact for recycling processes.</li> </ul>			

19. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, UNEP, 22 March 1989.

## Capturing value from a circular business transformation

Companies can get ahead of the curve by anticipating regulatory changes and making necessary investments early to build competitive advantage in key areas that are aligned with their brand.

New regulatory requirements are designed to make companies accountable for the environmental externalities of their activities and products throughout their lifecycle. Investments needed to make product-level ecodesign changes, establish a DPP and anticipate increased costs associated with waste management, such as EPR schemes, will increase the cost of doing business in the EU and likely challenge the profitability of companies operating in the textiles industry. This will particularly affect business models where product margins are low and profits are driven by high volume of sales. For textiles companies targeting price sensitive customers, determining the right pricing strategy will be critical.

Companies can get ahead of the curve by anticipating regulatory changes and making necessary investments early to build competitive advantage in key areas that are aligned with their brand. For example, companies whose brand value is rooted in the durability of their textiles, could invest in R&D necessary to determine the extent to which recycled content can be incorporated without compromising the quality of their products. In this context, they should also assess shortterm compliance costs against longer-term strategic gains. Furthermore companies adopting circular business models as part of their net-zero transition should consider opportunities for cost savings through establishing cross-sector partnerships, and diversifying revenue streams within the textiles ecosystem.

#### Investing in cross-sector partnerships

Cross-sector partnerships may help reduce the financial burden for companies from the new requirements. Such partnerships may include multiple organisations and sectors, harnessing the competencies of different stakeholders to help solve complex challenges and make progress at scale. Companies should consider which part of the value chain would benefit from a cross-sector approach, and which aspects are strategically important to continue to operate independently. Various factors need to be taken into account when making these decisions. For example, companies must consider whether joining a multi-brand textiles repair and alteration centre or maintaining an exclusive service for their own customers achieves the best balance between cost savings and brand value.

When assessing the suitability of cross-sector partnerships or standalone operations, companies could consider factors included in the table below.

	Cross-sector partnership	Standalone		
Challenges	Potentially sharing commercially sensitive information with     competitors or other agents in the value chain	Increases competition especially in R&D.		
	<ul> <li>Increased expective to conflicts of interest</li> </ul>	<ul> <li>Possible 'price war', especially in cases where supply of certain sustainable fabrics is lower than demand.</li> <li>Higher entry barriers for SMEs. This may disproportionately affect businesses in some geographies. For instance, the EU textile and clothing industry comprises of 160,000 companies of which 99% are SMEs<sup>20</sup>.</li> </ul>		
	<ul> <li>Increased exposure to connects of increast.</li> <li>Limitations on ability to tailor solutions to company-specific strategy.</li> </ul>			
Opportunities	Higher resource efficiency.	• Faster decision-making.		
	<ul> <li>Shared knowledge (e.g., on alternative materials).</li> </ul>	• Lower risk of sharing sensitive information. For example, product quality know-how, selection of best		
	<ul> <li>Creation of synergies and industrial symbiosis.</li> </ul>	suppliers etc.		
	Shared risks (in operations, quality etc.)			

#### **Exploring new revenue models**

Companies should also consider opportunities created by the shift to a circular business model, such as generating additional revenues and finding new cost savings. For example, a circular model brings a company and its customers closer and extends their relationship beyond the point-of-sale. This offers companies a chance to improve customer relationships by increasing points of interaction which can ultimately help build confidence and reliability in the brand. As recent research from Deloitte discusses, consumers are increasingly focused on the circularity of products and services, and are changing their behaviour in many areas.<sup>21</sup> Some examples of these behavioural changes are set out below.

#### Figure 3: Behaviours breakdown by category

(% of those who undertook the stated action in the given category)

What actions consumers are taking to have a more sustainable lifestyle Thinking about the last 12 months, which, if any, of the following have you done, specifically to adopt a more sustainable lifestyle?	Everyday household items	Clothing and footwear	Furniture and homeware	Electrical equipment (e.g. PCs/laptop, television, mobile phone device, etc.)
% all UK adults (2024)	<u>ک</u>	Ŷ		4K
Reduce the amount of new products and goods I buy 58%	45%	58%	35%	33%
Repaired/fixed an item instead of replacing with a brand new equivalent item 56%	43%	49%	39%	42%
Bought second hand/refurbished items 48%	32%	60%	42%	36%
Paid extra for a more durable/long lasting product 41%	32%	49%	30%	40%
Stopped purchasing brands because of ethical or sustainability concerns 29%	26%	42%	11%	16%
Hired/rented items instead of purchasing	24%	32%	23%	33%

Source: The Sustainable Consumer

Customer perception and participation will be key to the success of any such new revenue model. Equally, enabling customers, for example, to extend the use phase of their products through dedicated reselling platforms, or making it easier for customers to drop off products at the end of their life in designated collection centres can strengthen brand image and the long-term bond with customers.

Highlighted below are some leading practices and examples of potential revenue streams, differentiated by market segments. New regulatory requirements will likely affect the spectrum of business activities from design and production to end-of-life waste management.



Although the current development of these initiatives is still modest, identifying services that align best with a company's brand identity and business model should be seen as an essential first step before scaling these initiatives more widely to reap the benefits, such as generating additional revenue streams and cost savings.

21. The Sustainability Consumer, Deloitte, 2024. The report also provides information on consumer behaviour concerning other product categories.

22. Emotional durability refers to increasing and/ or maintaining a product's relevance and desirability to a user, or multiple users, over time, see Designing products to be used more and for longer, Ellen Macarthur Foundation, 23 November 2021.

## Conclusion

Despite some residual regulatory ambiguities, there is no doubt that textiles companies operating in the EU will need to transform their businesses in line with circularity principles. By 2030, business models that secured market leadership in the past may no longer be feasible in the EU as new regulatory requirements and the likelihood of changes in consumer sentiment push the market towards more sustainable and responsible businesses. Early adopters will be better positioned to identify strategic opportunities and establish themselves in new, changing markets. Ultimately, companies are faced with balancing short-term compliance costs against longer-term strategic gains. Boardroom discussions should therefore increasingly focus on devising an effective strategy for regulatory response and the broader impact of circular transformation on their business and its competitiveness and profitability.

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#### About the EMEA Sustainability Regulation Hub

The EMEA Sustainability Hub is a source of critical regulatory strategy insight and advice, designed to help business leaders understand and assess how sustainability regulation will drive the evolution of business strategies and operating models. As sustainability regulatory requirements and standards expand, it is essential to adopt a strategic approach to navigate the complexity, and to engage with regulators proactively. We develop early insights across industries on emerging EU sustainability regulations, policies, industry standards and codes of conduct to help you assess how best to transform strategies and operating models.

#### About the Global Hub for Circularity in Fashion

The Global Hub for Circularity in Fashion has the objective of bringing together a global network of circular economy practitioners to connect, communicate and collaborate around the Fashion Industry most vital issues, helping our clients to understand their challenges and find innovative solutions that will enable them to transform their business strategies and operating models.

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