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“Textile Recycling in Portugal: Status Quo and Strategies for the Implementation of EU Directives

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The environmental impact of the textile industry

» Environmental impacts of the textile sector



Industry ranks **third** in terms of water and land use



Textile consumption in the EU ranks **fourth** in terms of its negative impact on the environment and climate change



By 2030, consumption of clothing and footwear is expected to rise by **63%**



The release of **microplastics** contributes to the sector's environmental impact

Significant potential for transitioning to sustainable and circular models of production, consumption and business



EU recognition of the urgent need for action in the textile sector



The environmental impact of the textile industry



• The Commission’s vision for the textiles sector in 2030 is as follows

► DURABLE AND REPAIRABLE PRODUCTS

Made from recycled fibres, free from hazardous substances

► DISPOSABLE FASHION IS OUT OF FASHION

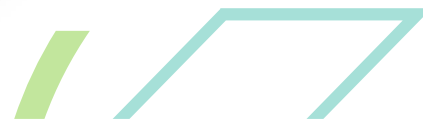
High-quality, affordable products with a longer life time

► REUSE AND REPAIR SERVICES

Available and accessible to everyone

► A COMPETITIVE AND RESILIENT TEXTILE SECTOR

Responsible producers throughout the entire value chain, with sufficient recycling capacity



The environmental impact of the textile industry

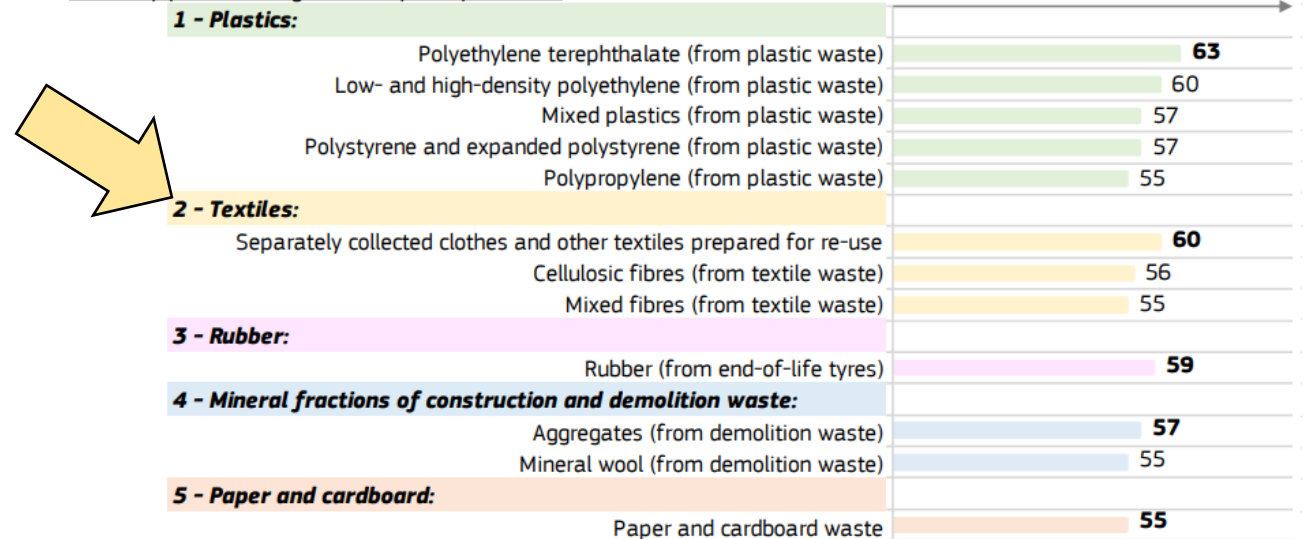


COM Vision for Textiles 2030

• EU Strategy for Sustainable and Circular Textiles

- ▶ Establish a textile sector + eco-friendly and competitive

Waste/by-product categories and priority streams:



Scoping possible further EU-wide end-of-waste and by-product criteria (JRC; 2022)



EUROPEAN LEGISLATION



- As a member of the European Union (EU), Portugal is subject to various European directives and regulations designed to govern the production, marketing and sustainability of products, including textiles.

- In the specific case of **textiles**, the **Waste Framework Directive** (2008/98/EC) and the Textiles Strategy, which is being implemented through the Circular Economy Action Plan, are among the key regulations affecting the textile industry in Portugal.



» Overview

Directive (EU) 2025/1892 introduces **changes to the Waste Framework Directive (2008/98/EC)** with the aiming at accelerating the transition to a **circular economy**, reducing the environmental impact of waste generation and harmonising rules across the European Union.

► **Publication:** Official Journal of the European Union on 26 September 2025.

► **Effective date:** 16 October 2025.

► **Transposition into the national law of the Member States:** by 17 June 2027.



Official Journal
of the European Union

EN

L series

2025/1892

26.9.2025

DIRECTIVE (EU) 2025/1892 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 10 September 2025

amending Directive 2008/98/EC on waste

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

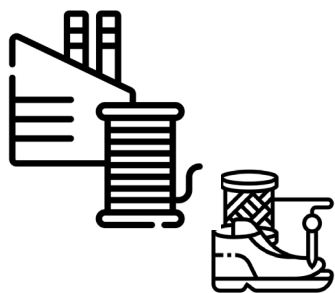
Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,



EUROPEAN LEGISLATION

► It introduces a mandatory extended producer responsibility scheme for textiles, textile-related products and footwear.



► Producers (including importers and online retailers) must bear the costs of:

COLLECTION,
SORTING,
PREPARATION FOR REUSE and
RECYCLING of their products.

A wide range of products is covered – from clothing and accessories to bed linen and curtains.



Member States have **30 months** from the entry into force of the Directive to establish these schemes
(by **April 2028**)



8

Definitions of 'producer of textile, textile-related or footwear products', 'making available on the market', 'online platform', 'fulfilment service provider', 'social economy entity', 'consumer', 'end user', 'unsold consumer product' and 'producer responsibility organisation' linked to the implementation of the extended producer responsibility for textiles should be included in Directive 2008/98/EC so that the scope of those concepts and linked obligations are clarified.








In line with the polluter-pays principle, as referred to in Article 191(2) of the Treaty on the Functioning of the European Union (TFEU), it is essential that the producers making available on the market for the first time within the territory of a Member State certain textile, textile-related or footwear products take responsibility for their management at their end of life as well as extending their lifetime through making used textile, textile-related and footwear products assessed as fit for re-use available on the market for re-use. To implement the polluter-pays principle, it is appropriate to lay down obligations concerning the management of textile, textile-related or footwear products for producers, including any manufacturer, importer or distributor, that, irrespective of the selling technique used, including by means of distance contracts (...)

» The 'polluter pays' principle

Textile and footwear manufacturers

► Who ever places a product on the market assumes responsibility

- EPR

-  End of product life
-  Reuse and extension of service life
-  Textiles, related products and footwear
-  Manufacturers, importers and distributors
-  Includes distance selling



In the context of this amending Directive, 'used textiles' should be understood as separately collected textiles that are discarded by the end user, (...) 'Used textiles assessed as fit for re-use' should be understood as textiles that have been assessed as fit for re-use after collection, sorting, preparing for re-use or after the direct professional assessment at the collection point. Used textiles assessed as fit for re-use should not be considered to be waste textile.

» Second-hand textiles vs. Reuse

General rule

► Used textiles = waste at the time of collection

► Following assessment

→ Screening

→ Preparation for reuse

→ They are no longer waste

Exception

► On-site professional assessment

→ Suitable for reuse



It is only after assessment by a professional that they cease to be waste



28

Household textile and apparel and clothing accessories (...). The scope of the established extended producer responsibility scheme should therefore cover textile, textile-related and footwear products for household use or other uses, (...). In order to ensure the legal certainty for the producers on the products subject to the extended producer responsibility, the products in scope should be identified by reference to the Combined Nomenclature (CN) codes pursuant to Annex I to Council Regulation (EEC) No 2658/87 (12).


» Main focus

Clothing, home textiles and accessories

- ▶ Greater impact on overproduction and excessive consumption

Covered by the EPR

- Textile products
- Textile-related products
- Footwear

 Similar to those for domestic use
(Annex IV-C)

Professional use

- ✓ **Included**, if intended for domestic use
- ✗ **Excluded**, if a specific collection/treatment scheme already exists
- ✗ **Excluded**, if there are safety, health or hygiene risks (e.g. military use)



EUROPEAN LEGISLATION

39

In order to increase the circularity and environmental sustainability of textiles and to reduce the adverse impacts on climate and the environment, (...). In order to provide a **strong incentive for ecodesign**, while taking into account the objectives of the internal market and the composition of the textile sector which is primarily composed of SMEs, it is necessary to **harmonise criteria for the modulation of extended producer responsibility fees on the basis of the most relevant ecodesign parameters to enable the treatment of textiles in line with the waste hierarchy**. The modulation of those fees according to the ecodesign criteria should be based on the ecodesign requirements (...)

» EPR as an incentive for ecodesign.

- ▶ Modulation of fee
- ▶ Reward best design



Better Ecodesign → less waste → fairer fees



44

Pursuant to Article 30 of Regulation (EU) 2022/2065 of the European Parliament and of the Council (15), providers of online platforms that allow consumers to conclude distance contracts with traders, are required, prior to allowing a producer to use their services, to obtain certain identification information from the trader and a self-certification by the trader committing to only offer products or services that comply with the applicable rules of Union law. For the purposes of this Directive, **producers offering textile, textile-related or footwear products made available on the market for the first time to consumers located in the Union should be considered to be traders within the meaning of Article 30 of Regulation (EU) 2022/2065.**



Most relevant recitals

48

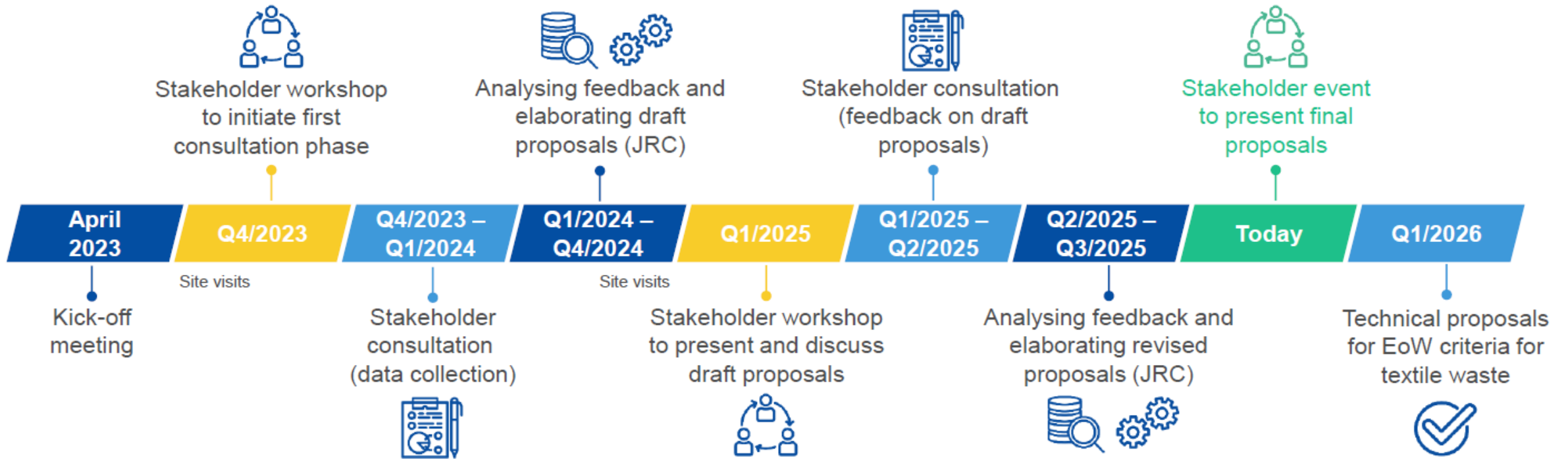
In order to ensure that the treatment of textiles is in line with the waste hierarchy, **producer responsibility organisations should ensure that all separately collected textiles and footwear are subject to sorting operations** that generate items that are fit for re-use and meet the needs of markets for second-hand textile and for feedstock recycling in the Union and globally.

49

The Commission will develop and propose an **implementing act for setting end-of-waste criteria for textiles**, based on the ongoing work of the Joint Research Centre. The end-of-waste criteria should include criteria for textile, textile-related and footwear products assessed as fit for re-use and recycled textile, textile-related and footwear products.



End of Waste (EoW)



End of Waste (EoW)

- » The document from JRC is now being developed for a EU-wide EoW criteria for reuse and remanufacturing;
- » It is proposed to include all textile, textile-related and footwear categories;
- » The EoW will include three phases:
 - ▶ EoW for preparing for re-use, after a sorting operation;
 - ▶ EoW for items not suitable for re-use that are redirected to remanufacturing (missing buttons, small stains and/or tears);
 - ▶ EoW for recycling



(7) the following articles are inserted:

Article 22a

Extended producer responsibility scheme for textiles

Article 22b

Register of producers of textile, textile-related or footwear products

Article 22c

Producer responsibility organisations for textiles

Article 22d

Management of waste textiles



EUROPEAN LEGISLATION

Part I

Textile products, and textile articles of apparel and clothing accessories for household use or other uses, where such products are similar in nature and composition to those for household use, that fall within the scope of Article 22a

CN code	Description
61 – all listed codes within the chapter	Articles of apparel and clothing accessories, knitted or crocheted
62 – all listed codes within the chapter	Articles of apparel and clothing accessories, not knitted or crocheted
6301	Blankets and travelling rugs (except 6301 10 00)
6302	Bed linen, table linen, toilet linen and kitchen linen
6303	Curtains (including drapes) and interior blinds; curtain or bed valances
6304	Other furnishing articles, excluding those of heading 9404
6309	Worn clothing and other worn articles
6504	Hats and other headgear, plaited or made by assembling strips of any material, whether or not lined or trimmed
6505	Hats and other headgear, knitted or crocheted, or made up from lace, felt or other textile fabric, in the piece (but not in strips), whether or not lined or trimmed; hairnets of any material, whether or not lined or trimmed

Part II

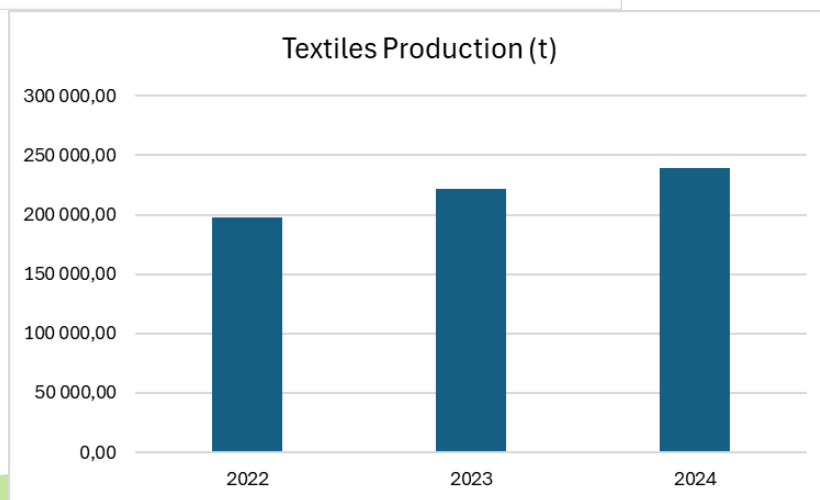
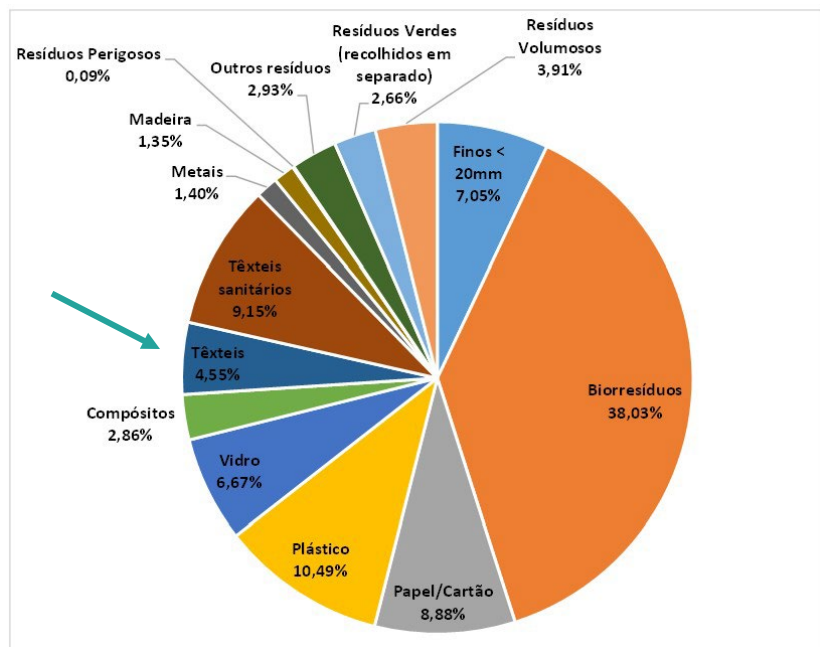
Footwear, and articles of apparel and clothing accessories for household use or other uses, where such products are similar in nature and composition to those for household use, whose main composition is not textile, that fall within the scope of Article 22a

CN code	Description
4203	Articles of apparel and clothing accessories, of leather or composition leather (excl. footwear and headgear and parts thereof, and goods of chapter 95, e.g. shin guards, fencing masks)
6401	Waterproof footwear with outer soles and uppers of rubber or of plastics, the uppers of which are neither fixed to the sole nor assembled by stitching, riveting, nailing, screwing, plugging or similar processes
6402	Other footwear with outer soles and uppers of rubber or plastics
6403	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather
6404	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials
6405	Other footwear

National timeline



Textile Waste Recycling in Portugal



- ✓ Based on data on the physical composition of municipal waste (4.5% textile waste), it is estimated that around 239,000 tonnes of textile waste were generated in mainland Portugal in 2024;
- ✓ However, the majority of this waste was not collected separately (**less than 1%**), given that there is no specific collection network in place at national level for this waste, but only for used textiles that are not waste;
- ✓ Over the years, there has been an increase in the quantities of textile waste produced from urban sources.



Textile Waste Recycling in Portugal

- ✓ A textile collection network has been set up by social organisations to collect textiles to be used again for the same purpose, i.e. reused (and, therefore, not considered waste).
- ✓ The National law stipulates that a separate collection scheme for used textiles (and, therefore, waste) must be implemented from 1 January 2025. As textiles are predominantly municipal waste, this responsibility falls on municipalities.
- ✓ The new obligations set on the new Directive, alongside the existing obligations regarding separate collection, represent a significant shift from the model previously implemented at national level.
- ✓ Thus, the collection of textiles for reuse currently **coexists** with the requirement for municipalities to provide collection scheme for used textile (waste).
- ✓ It is important to prepare for the transition to the new model, which introduces extended producer responsibility, avoiding disruptions and making use of models whose implementation at national and international level has proven to be successful.



Textile Waste Recycling in Portugal

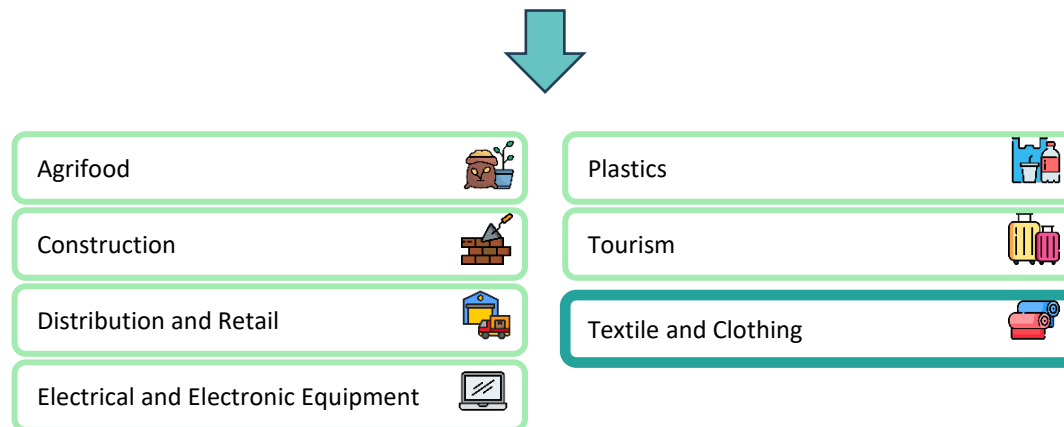
Several initiatives are being developed that could help on a paradigm shift in Portugal, namely:

- all products placed on the market must be durable, repairable and recyclable, with more recycled material incorporated and lower environmental impact throughout their life cycle;
- projects such as the Textile Sorting Pilot Unit (UPTT) of LIPOR/BE@T represent significant steps towards sorting and separation of textiles by composition and colour;
- innovation initiatives, such as the RegioGreenTex project, aim to create recycling ecosystems through regional hubs and transnational collaborations that include Portuguese regions;
- also, APED is currently preparing a pilot project to measure public acceptance of the selective collection of used textiles and treatment solutions in accordance with the waste hierarchy
- Initiatives developed by municipalities as set out in its PAPERSU for the collection of textiles with a view to implementing local initiatives, such as sewing workshops, or, if that is not possible, send it for proper treatment.



Circular Economy Action Plan 2030

- Approved by the Council of Ministers on 9th of January 2026.
- The plan is structured into three levels:



CV7.3 R&D&I in innovative end-of-life and circular strategies for textile products

Support R&D&I projects for the development of end-of-life alternatives for textile products, including new circular business models, innovative recycling technologies, and efficient sorting and accessory removal systems, aiming to valorize sector by-products and post-consumer waste.



Sustainable Bioeconomy

Integrated Projects of Component 12 – Sustainable Bioeconomy of the RRP



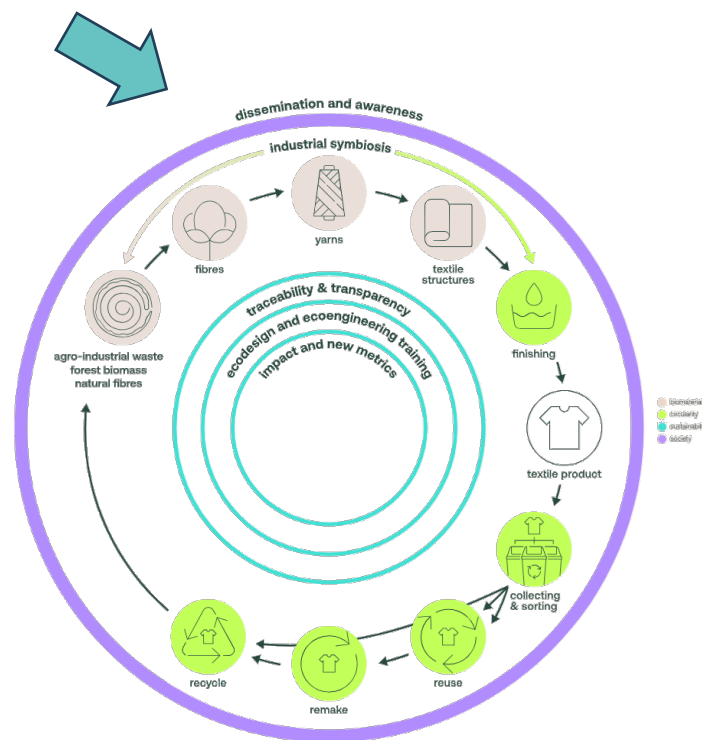
Textile and Clothing



Footwear



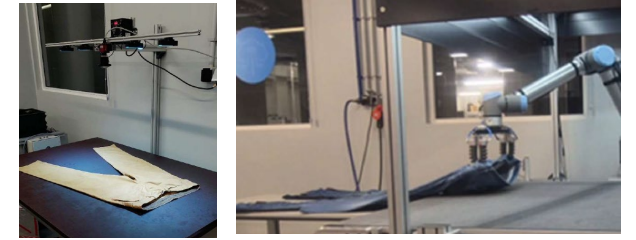
Natural Resin



Pilar	Strategic Objectives
Biomaterials	<ul style="list-style-type: none"> Research and development in new fibres, non-woven fabrics, and matrices for bio-based composites; Research and development in alternative natural fibres derived from fibrous agricultural biomass (Madeira banana, Azores pineapple, hemp, flax, and rice straw).
Circularity	<ul style="list-style-type: none"> Research and development in new (bio)circular processes, notably recycling; Establishment of industrial symbioses aimed at valorizing waste from other industries.
Sustainability	<ul style="list-style-type: none"> Capacity building in ecodesign & eco-engineering; Research and development in new validation and assessment metrics (recycled content, biodegradability, hazardous substances, cytotoxicity, fiber origin, and identification and quantification of microplastics); Development of digital tracking tools.
Society	<ul style="list-style-type: none"> Consumer information and promotion of responsible consumption habits; Awareness-raising on labelling; Engagement of value chain stakeholders and brands; Promotion of the 'Responsible Textiles From Portugal' brand.

Sustainable Bioeconomy

M1: Advanced systems for sorting and separation of post-consumer textile waste



M2: New (bio)chemical recycling processes for cellulose recovery from natural and blended textile waste



M6: Industrial-pilot infrastructure for sorting and separation of textile waste



M7: Industrial-pilot infrastructure for chemical recycling of textile waste



Textile Waste Management_main challenges

Some of the **main challenges** for textile recycling are:

- Complexity of Textile Materials

Clothing and household textiles are made from mixtures of natural and synthetic fibres, accessories (buttons, zippers) and chemical finishes, which complicates efficient separation and recycling. This requires sorting and depolymerisation technologies to enable fibre-to-fibre recycling or high-quality recycled materials;

- Scarce Specialised Infrastructure, Concentrated in Few Centres

This limits the capacity to recycle large volumes of textiles. Collection and routing still depend on strong coordination between municipalities, waste operators and industry;

- Consumer Awareness and Behaviour

Effective selective collection depends on careful separation behaviour by citizens, and this is still not well established across all regions;

- Expansion of Sorting and Recycling Infrastructure

Scaling up units such as the UPTT and promoting regional hubs to sort, recover and recycle textile material at high quality. Investment is also needed in advanced automated sorting technologies to handle complex fibre blends;



Textile Waste management_main challenges

- Integration of the Circular Economy

Promoting eco-design and design for circularity in textile products — encouraging mono-fibres or easily recyclable materials;

- Education and Awareness Campaigns

Informing and empowering consumers and municipalities for the correct separation of textiles, reducing contamination of recyclable materials and increasing collection rates;

- Portugal is transitioning towards a more robust textile recycling system driven by:

- EU directives that require selective collection and EPR;
- Pilot projects and infrastructure, such as sorting units and regional programmes;
- Technical and behavioural challenges that demand coordinated effort between the public sector, industry, citizens and technological innovators.

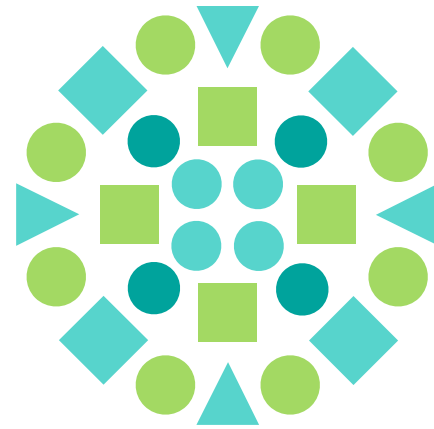
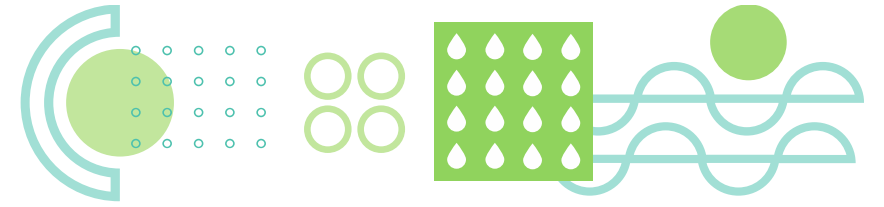
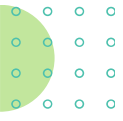


Opportunities



- ▶ New business models and circular services
- ▶ Sustainable product
- ▶ More efficient value chains
- ▶ New partnerships
- ▶ Competitiveness and market access





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Thank you

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