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BDE Position Paper on the Development of a Circular Textile Economy in Europe

I. Textiles in the Circular Economy - Current Market Conditions and Obstacles to Circularity

The textile market[1] has been characterised by the phenomenon of ultra-fast fashion for several years. It describes a business model in which clothing is designed as quickly as possible based on current (micro) trends and then produced and sold at extremely low prices. Reuse and recycling hardly feature in this model – thus, incineration and landfilling are the most common disposal methods. In addition, the European Environmental Agency recognises that the textile sector has a significant negative impact in terms of water and land consumption as well as greenhouse gas emissions during production[2]. In response to this, the EU Commission formulated in its 'EU Strategy for Sustainable and Circular Textiles' from 2022 the goal that by 2030 'textile products placed on the EU market are long-lived and recyclable, to a great extent made of recycled fibres, free of hazardous substances and produced in respect of social rights and the environment'[3].

The BDE welcomes this strategy and the regulatory process it has initiated to introduce a circular economy for textiles. After all, the EU is facing massive challenges when it comes to textile waste management in general, while the existing structure are facing existential problems: Of the 11 million tonnes of (post-consumer) used textiles generated in the EU each year, only 2.4 million tonnes were collected separately in 2019. In addition, 4.1 million tonnes of the total volume were landfilled, and 5.6 million tonnes were incinerated.[4] Hence, the central goal in dealing with used textiles is to ensure that they are processed in accordance with the waste hierarchy. This means firstly for (preparation for) reuse and then, once the textile is no longer marketable, for high-quality recycling. However, due to ultra-fast fashion, which characterises the global textile market, the reuse market is on the brink of collapse. High process costs for collection and sorting were already challenging in the past; but low-quality materials

[1] This paper is primarily concerned with textiles in the clothing and household sectors. The market for other textile products (e.g. automotive, construction, agriculture, medicine) is not considered here.
[2] European Environment Agency, 2025, "Circularity of the EU textiles value chain in numbers", https://www.eea.europa.eu/en/analysis/publications/circularity-of-the-eu-textiles-value-chain-in-numbers?activeTab=4a75727f-4f3c-4b71-bbce-9a2481c20210.
[3] European Commission, 2022, "EU Strategy for Sustainable and Circular Textiles", https://environment.ec.europa.eu/document/download/74126c90-5cbf-46d0-ab6b-60878644b395_en?filename=COM_2022_141_1_EN_ACT_part1_v8.pdf.
[4] JRC, 2023, "Techno-scientific assessment of the management options for used and waste textiles in the European Union", https://publications.jrc.ec.europa.eu/repository/handle/JRC134586.

are increasingly making this business model obsolete - resulting in bankruptcies among collectors and sorters[5].

Recycling is also challenged by low-quality textiles. The most widespread approach for recycling is mechanical recycling, in which used textiles are currently mainly converted into cleaning cloths, insulation, and padding materials (also known as downcycling). This technology is available on an industrial scale and easy to implement, but it is also of low efficiency, as the fibres lose significant quality during the shredding process. As a result, there are only limited applications for the recycled fibres as yarns in textiles. Although research into high-quality solutions in the area of fibre-to-fibre recycling (F2F-Recycling) is particularly well developed in Germany, there are still major technical challenges. These include the separation of compound textiles, for example, made from polyester and cotton, the removal of disruptive components, and the functionality of recycled yarns. In addition, establishing economically viable business models with long-term demand structures remains very difficult.

Consumer awareness of the environmental impact of textile consumption must also be improved, as per capita consumption continues to rise. According to the European Environmental Agency's report "Circularity of the EU textiles value chain in numbers", consumption increased from 17 kg in 2019 to 19 kg in 2022[6] - mostly driven by products from the ultra-fast fashion segment. The introduction of the Digital Product Passport, which provides information on the origin, materials and recyclability of textiles, could be a step towards reversing this trend. This would enable consumers to make informed decisions and increase the demand for more sustainable, durable products, thereby supporting the transition to a circular textile economy.

These challenges require committed action from all economic stakeholders involved, who in turn necessitate solid regulatory frameworks across Germany and the EU.

[5] EUWID, Ralf Armbruster, 2024, "Soex verhandelt konzentriert ein Erwerberkonzept", https://www.euwid-recycling.de/news/wirtschaft/soex-verhandelt-konzentriert-ein-erwerberkonzept-121224/.
[6] European Environmental Agency, 2025, "Circularity of the EU textiles value chain in numbers", https://www.eea.europa.eu/en/analysis/publications/circularity-of-the-eu-textiles-value-chain-in-numbers.

II. The Vision for a Circular Textile Economy

A textile industry that adopts a circular approach needs the following elements:

- A comprehensive implementation of the waste hierarchy, prioritising waste prevention through durability, repair, and reuse before recycling, incineration, and landfilling, must be ensured. Nevertheless, all waste treatment options must remain available in accordance with the waste hierarchy.
- Business models must establish themselves sustainably on the European market and be viable in the long term so that a corresponding circular textile economy can be created. Furthermore, existing collection systems must be integrated without producing unfair competition. For Germany, for example, this means maintaining existing collection activities by commercial players, social economy enterprises and local authorities - without privileging any actor.
- In a complex value chain that is globally distributed, regulation must create a level playing field from production to recycling, enabling a positive steering effect on the national, European and global market. This includes incentive mechanisms that strengthen the development of European reuse and recycling infrastructure. For example, quotas should be tied to compliance with environmental and social standards.
- The recycling and recyclate market require low bureaucracy but effective monitoring and verification rules, as well as norms and standards to prevent mislabelling of recycled material streams and their use (traceability).[7]

[7] The concern arises from years of experience in the plastics sector. Since the introduction of minimum recycled content quotas, recycled plastics are increasingly being sourced from third countries in order to fulfil these requirements. However, this sector is characterised by significant cases of fraud and distorted competition. On the one hand, recyclates are often produced from primary raw materials or non-authentic post-consumer waste. On the other hand, significantly lower environmental standards apply in many third countries, which means that production costs are considerably lower and cannot be compared with those of European recyclates. Overall, this means that European recyclates are hardly in demand due to higher costs.

III. BDE demands

To establish a functioning circular textile economy in the EU market, the waste management sector requires two key prerequisites:

1. **Financial coverage of the costs** for collection, sorting, reuse, and recycling by the producers,
2. **A market for recyclates**, so that secondary materials can be kept utilised within the circular economy, and
3. The consistent implementation of **design-for-recycling principles** during product development.

Neither of these currently exist across Europe, although the former will soon be introduced through the implementation of Extended Producer Responsibilities (EPR) under the EU Waste Framework Directive (WFD) for textile producers and distributors. Unfortunately, there is currently no market for recyclates. The roots for this are twofold: firstly, the still inadequate level of technological development of textile sorting and recycling as well as, secondly, the lack of political incentives for the use of recycled materials. In order to trigger investment and innovation in this area – both of which are essential for the transformation of the sector – a functioning market for recyclates urgently needs to be established.

In order to establish an efficient waste management and recycling infrastructure, targeted funding should be provided for research and development, in particular to optimise waste prevention and management measures in accordance with the waste hierarchy. In addition, EPR fees from producers should actively be used to invest in the research and development of automated sorting and separation technologies that allow for more efficient separation and decontamination of mixed materials. This will promote high-quality fibre-to-fibre recycling and promote the use of recycled fibres – with the aim of establishing both on the market in the long term.

However, economic efficiency and ecological sustainability must also be considered in equal measure, especially where it pertains to recycling technologies which should interlock[8]. Material and mechanical recycling processes are already highly developed technologically, can be scaled up industrially and are generally more energy-efficient and resource-conserving than chemical processes. However, the production of high-quality recyclates is still difficult, which means further research and development remains necessary. Moreover, mechanical processes are limited when it comes to

[8] A distinction is made between various processes in recycling:
Material recycling includes all processes in which waste is processed mechanically or physically without changing the chemical structure of the molecules. This includes methods such as shredding, melting or solvent-based processes that leave existing molecules intact in order to reintroduce materials into the manufacturing loop.
However, as soon as the molecules are broken down into their chemical components, for example through pyrolysis or hydrolysis, this is referred to as chemical recycling.

certain textiles – such as those with coatings or contamination, as well as with regard to the production of high-quality recyclates.

In these cases, solvent-based, thermomechanical or chemical recycling methods can provide a meaningful supplement[9]. Thermomechanical processes enable the production of high-performance recycled fibres that can serve as drop-in solutions for a wide range of applications, while chemical recycling processes can either function independently or serve as pre-treatment methods for separating materials before further mechanical recycling. The coordinated use of all methods not only significantly improves the environmental footprint of textile recycling but also enables a financially viable circular system.

Overall, the technology-neutral development of recycling processes must be promoted while high environmental standards are maintined. Only through a holistic strategy can the ecological and economic potential of a circular textile economy be fully utilised.

Establishing a Sustainable Financial Structure for Textile Waste Management

The partial revision of the WFD takes the right approach with the introduction of an extended producer responsibility for used textiles, as it provides important incentives for all stages of the value chain and puts them on a viable financial footing, which in turn will create investment and legal certainty that will enable business models for reuse and recycling. The EPR adopted at EU level must therefore be implemented as quickly as possible in Germany and all other EU member states. Until then, short-term measures should be introduced to support the sector. This could include, for example, a reduction in VAT for reuse, repair and recycling services in order to increase demand and improve competitiveness compared to primary materials. In addition, a temporary suspension of municipal fees for textile collection could also help to relieve the burden on collection and sorting operators and ensure service capacity in the long term.[10]

For a functioning market to develop through the EPR in the long term, the following requirements must also be met:

> The EPR makes producers and distributors of textiles, such as online retailers, responsible for the environmentally sound handling of their products beyond their utilisation. The design of the EPR should therefore promote the expansion of a reuse and recycling market for textiles and remain in the purview of member states.

[9] Öko-Institut e.V., 2024, "Textilrecycling – Status Quo und aktuelle Entwicklungen", https://www.nabu.de/imperia/md/content/nabude/konsumressourcenmuell/241017-nabu-textilrecycling-studie-status-quo.pdf, Seite 13, 23.
[10] Further possible ad-hoc measures have been published by the European umbrella organisations of the waste management and recycling industry, FEAD and EuRIC.

In order to design an efficient circular economy, it is essential to **involve waste management and reuse companies in the political process of designing the EPR** as well as **in the structures of extended producer responsibility organisations (PROs)**.

Moreover, it must be ensured that the PROs apply **non-discriminatory procedures** when awarding contracts for the waste management of used textiles and do not favour social economy enterprises, municipal or private waste operators to ensure competitiveness.

The EPR fees charged for placing textiles on the EU market must ensure the financing of all waste management steps from collection and sorting to reuse, recycling and thermal utilisation, as well as promoting the development of innovative recycling processes and consumer communication. To guarantee fair competition across Europe, **uniform criteria for the eco-modulation** must be created at EU level, which allow for regional and national adjustments to a certain extent in justified and exceptional cases.

EPR fees should only be charged to companies placing textiles on the EU market for the first time. Re-use companies that do not place the textile on the EU market for the first time would thus be exempt from the financial obligations.

In contrast to many EU member states, Germany had (until recently) a functioning separate collection system for used textiles and an effective division of labour between the municipalities, commercial and social enterprises. The introduction of an EPR system should help to **sustainably finance established collection structures**, but at the same time **avoid privileging any actor**.

Social economy enterprises must be protected in the new organisation of the market but should have to prove their status as a social economy enterprise in an unbureaucratic manner so that free-riding can be ruled out. In addition, they should be obliged to report their collection and recycling volumes.

Because the waste management industry is dependent on the given textile quality for reuse and recycling and PROs may have to meet legal quotas for collection and recycling, **the organisational responsibility for collection should not lie with the public waste management comp**anies. The involvement of the public waste management companies should not go beyond a coordination obligation.

Fostering Demand for Recycled Materials

The lack of demand for textile recyclates can generally be attributed to the still limited technological developments and the low level of utilisation of recycled materials in the production of new goods. In order to stimulate demand, better market conditions need to be created, for example by introducing minimum recycled content quotas for recycled fibres. However, **all quotas should be flexible** in order to allow for **gradual adjustment to market developments**. **Transparent review mechanisms** are also required to regularly evaluate whether the established quotas need to be adjusted in light of technological advances and economic conditions. The BDE is therefore in favour of an evaluation and a gradual introduction of targets for waste prevention, preparation for reuse and recycling of textile waste by 2029.

Irrespective of this, a short-term introduction of **mandatory collection quotas** would be a first and early political approach to maintaining, expanding and, where necessary, supporting national collection structures in the EU.

Political incentives must also be created to promote the use of recyclates in textile production. This includes circular/green procurement of textiles by the public sector, (financial) benefits for companies using recycled materials, and investment in research and development for high-quality fibre-to-fibre recycling.

One unresolved issue in the textile recycling sector is the question of **effective monitoring and verification regulations that ensure a level playing field with the global market**. The success of textile recycling requires mechanisms that are low in bureaucracy but at the same time effective - enabling the seamless traceability of recycled textiles and preventing misdeclarations.

Fears regarding possible distortions of competition are primarily based on many years of experience in the plastic sector. Since the introduction of minimum recycled content quotas, recyclates are increasingly being produced in third countries. However, this sector is characterised by significant cases of fraud and distorted competitive conditions: recyclates are often produced from primary raw materials or inauthentic post-consumer waste; in addition, many third countries have significantly lower environmental standards, which result in considerably lower production costs. This distorts competition and makes it more difficult for recyclates from European producers, which are manufactured under stricter environmental regulations, to find a consumer market. This problem could also affect textile recycling if clear and fair verification and monitoring structures are not established.

In the plastic sector, a so-called **mirror clause** has been included in the EU Packaging and Packaging Waste Regulation (PPWR), which ensures that **recyclates imported from third countries meet the same standards as those produced within the EU** (PPWR, Article 7). This regulation is intended to prevent inferior or inauthentic

recyclates from flooding the market and distorting competition. A similar approach could also be taken in the textiles market to ensure that recycled textiles from third countries meet the same environmental and quality standards as European products. This is the only way to ensure that European recyclates are not disadvantaged and that the market for recycled textiles remains fair and competitive.

Rethinking Product Design

Furthermore, all producers and distributors of textiles must **comply with requirements for reusability and recycling during the design process**. Those who do not meet these criteria should not be allowed on the EU market. In order for the eco-design criteria to transform the production of textiles as quickly as possible, the rules must be adopted promptly by the European Commission. In the process, the following aspects need to be taken into account:

- ***Durability***: Textiles should become **more durable** by introducing minimum standards for physical durability that do not compromise other aspects, such as recyclability. In practice, however, this often represents a trade-off – for example, when a protective coating increases durability but must be laboriously separated from the textile in the recycling process at the end of its life cycle. In such cases, it is crucial to weigh up the environmental impact of the entire life cycle against the benefits of extended durability.
- ***Recyclability***: The **principle of Design for Recycling (D4R) should be established as a binding market requirement** so that textiles can be optimally recycled at the end of their life cycle. This includes specifically limiting the use of materials that are difficult to recycle or have varying compounds. Monomaterials or composite materials that can be easily separated from each other are particularly suitable. Materials with small amounts of added material – such as 5% elastane – should preferably be avoided as they can significantly impair recyclability. It is also important to avoid additives that are not absolutely necessary for functionality and hinder the recycling process.
- ***Minimum recycled content***: As only a few high-quality recycling processes are currently able to provide recycled fibres of sufficient quality and for a wide range of applications, it is not yet possible to set fixed minimum recycled content quotas. Nevertheless, **the use of recycled materials should be specifically promoted by creating market incentives and increasing demand**. In the long term, suitable quotas should be introduced on the basis of reliable data. A clear distinction between post-consumer and post-industrial recyclates is also necessary in order to avoid false incentives. For example, the recycling of post-industrial waste (PIR) is often already economically and technically established,

whereas post-consumer recyclates (PCR) are more difficult to integrate into textile production due to the heterogeneous input stream and the associated pre-treatment steps. From a regulatory perspective, it is important to ensure that a quota primarily incentivises demand for PCR, but also that the use of post-industrial recyclates is further optimised.

It should also be taken into account that **recyclates from non-textile do not contribute to solving the textile waste problem**. A clear focus on textile source materials for the minimum recycled content quotas could thus help to specifically promote the development of appropriate collection, sorting and recycling capacities.

IV. Conclusion

The transformation of the textile sector towards a sustainable circular economy requires a comprehensive realignment on multiple levels. At the core of this transformation is the implementation of an Extended Producer Responsibility, which ensures that producers are responsible for the end-of-life of their products. This not only ensures stable financing for the collection, sorting, reuse, recycling, and recovery of used textiles but also lays the foundation for a functioning circular infrastructure.

At the same time, the market for recyclates and innovation in textile recycling must be promoted. The BDE emphasises the need for flexible minimum recycled content quotas, which gradually adapt the market to technological advancements. In this way, not only is the use of recycled materials promoted, but the development of new recycling technologies is also advanced.

For the success of a circular textile economy, it is also essential to closely integrate all available recycling technologies under high environmental standards. This can only be achieved through targeted investments in research and development, which will further improve the efficiency and scalability of recycling processes.

Moreover, it is crucial to promote fair competition and ensure the participation of all relevant stakeholders in shaping the framework conditions for a functioning circular textile economy. Only through coordinated and forward-looking action can the textile sector in Europe be sustainably transitioned to a circular economy and made economically viable in the long term.