



Danish Waste Association - January 2021

# Clothing and Textiles: From Troublemaker to Circular Economy

Extended Producer Responsibility on Clothing and Textiles

# Extended Producer Responsibility on Clothing and Textiles

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**The manufacture of clothing and textiles is one of the most environmentally harmful industries in the world. Therefore, it is decisive to create the crucial development and transition towards more efficient resource use and business models based on reuse, repair, and recycling. The way forward is through the introduction of extended producer responsibility on clothing and textiles.**

By 2025, all EU Member States must make sure that clothing and textile waste is sorted out and collected separately. Denmark has decided to do so already as from 1 January 2022.

The textiles and fashion industry is among the industries with the highest negative impact on environment and climate worldwide. This industry does acknowledge, fortunately, that there is a need for strengthening the green transition of the industry considerably - and rapidly.

## Environmental burden of textiles and fashion industry

- Clothing and textiles account for the fourth largest environmental burden among spheres of consumption in Europe - behind food, transport, and housing.
- If we doubled the lifetime of our clothes, so new production would decrease, CO2 emissions from production could be reduced by 44%.
- 70 million barrels of oil - this is what is used for the manufacture of synthetic textile fibres.
- 3,500 types of chemicals are used in the global textile manufacturing industry.
- 10,000 litres of water are used for the manufacture of 1 kilogram of cotton.
- 1.2 billion tonnes of CO2 are emitted from textile manufacturing globally - more than the combined emissions of the flight and shipping industries.

*Sources: EEA, Danish Environmental Protection Agency, Ellen MacArthur Foundation.*





# Extended Producer Responsibility on Clothing and Textiles

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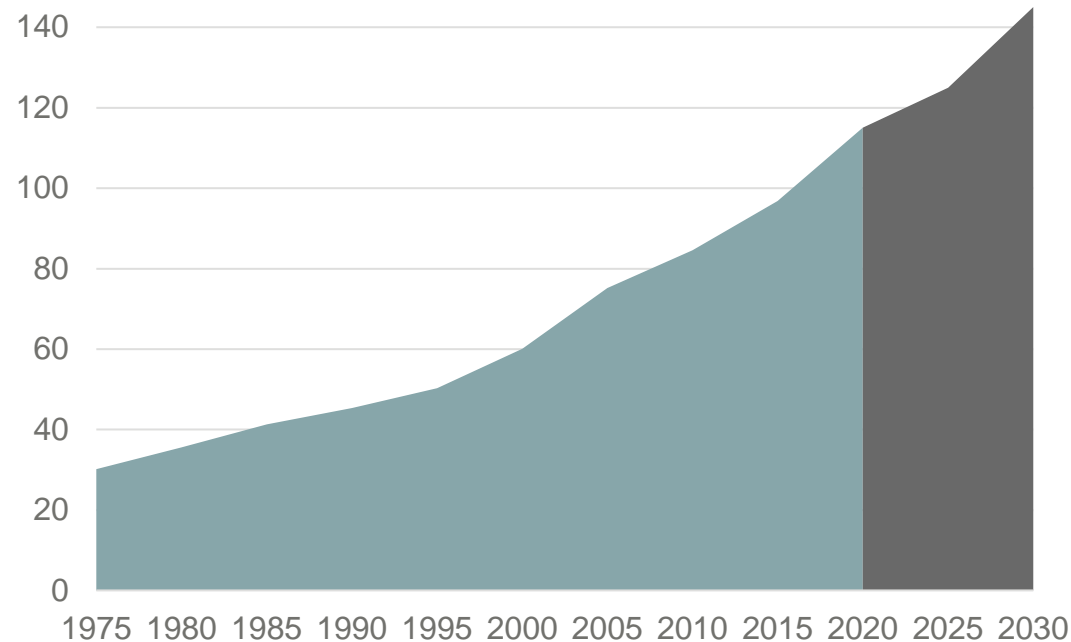
We all need clothes and shoes to wear. But we must cover this need in a resource-efficient and sensible manner taking into consideration the limited resources of the Earth and minimising CO2 emissions.

Today, we use increasing amounts of clothes that become waste far too quickly. The fewer clothes we produce and buy, and the longer time we wear our shoes, jeans, and bags, the better - for the environment and the economy. And when we do discard those items, we must sort them and make them enter the circular economy.

To obtain this, development and conversion of the entire textiles and fashion industry are called for.

# Huge Volumes a Burden on Environment and Climate

Global production of textile fibres  
(million tonnes)



Since 1975 the manufacture of clothing and textiles has almost quadrupled. And it is expected to increase at a still higher pace. In the same period, world population has just below doubled. Source: TextileExchange, UN.

With an increase in collection of 80%, a further 2.1 million tonnes of clothing and textiles will get on the European market for reuse and recycling in 2025, according to German [Future of Textiles Association](#).

However, already before COVID-19 this market showed signs of collapse, and since then it has only become more difficult to find an outlet for collected clothing and textiles for reuse and recycling. The demand for second-hand clothes is too little, and countries in Africa and Asia, where second-hand clothes used to go to, are now putting an end to this trade.

Along with this, the recycling capacity in Europe is insufficient for converting clothing and textiles to new fibres or materials. And since many clothes - just like plastics - are composed of many different types of materials and manufactured in a poor quality, it is difficult to recycle them properly.

Overall, the Danish population as well as other Europeans are at risk of sorting and collecting mountains of clothes that no one can make a good use of. Therefore, the target is reduced resource consumption and more reuse and recycling. The tool is the introduction of extended producer responsibility on clothing and textiles.



# Danish Waste Association Recommendations



## **Extended Producer Responsibility on Clothing, Shoes, and Textiles**

Denmark introduces extended producer responsibility on clothing and textiles.

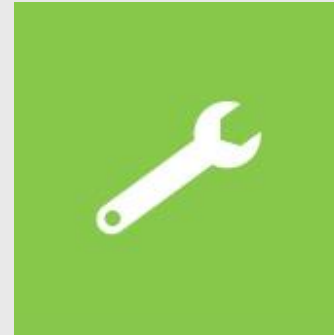
The producer responsibility will cover clothing, shoes, bags, and household textiles from private homes, as well as work clothing, uniforms, and textiles from businesses.



## **Minimum 55% Reuse**

When the producer responsibility system enters into force, at least 55% of the quantity of clothing and textiles from households and businesses must be reused, repaired, or diverted for remanufacturing.

This percentage will increase gradually.



## **Better Production**

Requirements for sustainable and long-life design and manufacturing are drawn up with the aim to define the contribution to be paid to the producer responsibility system by clothing and textile companies.

Furthermore, the destruction of unsold clothing must be stopped.



## **Research**

An increasing proportion of the economy of the producer responsibility system will be allocated to research and establishment of recycling solutions in Denmark along with the development of circular business models.







## Good Record of Collection and Reuse - But We Must Do Better

In Denmark, charities have by tradition undertaken collection and resale of clothing - primarily driven by voluntary community groups.

This has worked well so far, and Denmark is well rated in statistics compared with other countries. [Around half the textiles placed on the market in Denmark](#) are collected primarily for reuse or they are reused directly among consumers.

However, it is unrealistic to believe that - without central control - the task of collecting significantly higher amounts of clothing and textiles can be assumed in a satisfactory manner by voluntary forces that are furthermore unevenly distributed over Denmark.

The textiles and fashion industry acknowledges the need for a paradigm shift; brands and fashion chains are testing take-back schemes, sale of second-hand clothes, and higher rates of repair. In Denmark we need to build on this work and create a new and professional way of collecting, reusing, and recycling clothing, shoes, and textiles.



Danish Waste Association

Waste is resources

# Elements of Producer Responsibility on Textiles

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- Denmark will introduce **extended producer responsibility on clothing and textiles** that is interlinked with separate collection of textiles from businesses and households, cf. *Climate Plan for a Green Waste Sector and Circular Economy*.
- **The producer responsibility will cover** clothing, shoes, bags, and household textiles from private homes, as well as work clothing, uniforms, and textiles from businesses.
- **At the entry into force, the producer responsibility system must ensure that a quantity corresponding to at least 55%** of the quantity of clothing and textiles from households and businesses must be reused, repaired, or diverted for remanufacturing. This corresponds to a little more than the present level when including consumer-to-consumer reuse (through online platforms, flea markets etc.) and the potentially reusable share of textiles found in residual waste.
- The rate of **reuse etc.** will increase, for instance, with 5 percentage points every year over a defined span of years.
- Reuse and repair are to take place in a partnership with the players of the market, including charities, socio-economic companies, local authorities, and the fashion industry.
- The preparation of a **national strategy strengthening reuse and repair** - including focus on designing economic incentives for consumers and the fashion industry.
- **At the entry into force, the producer responsibility system must ensure that a quantity corresponding to at least 20%** of the quantity of clothing and textiles from households and businesses is recycled, corresponding to a little more than the present level when including recyclables found in residual waste today.
- The rate of recycling **must be increased** with, for instance, 5 percentage points every year over a defined span of years.



# Elements of Producer Responsibility on Textiles

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## Facts: Huge consumption of clothing and textiles

- 75,000 tonnes of textiles consumed in Danish households a year.
  - Danish consumption of clothing is 35% higher than the world average.
  - 46% is sold second-hand by private citizens or given to friends, or collected primarily by voluntary organisations for reuse in Denmark and abroad.
  - Approx. 60% of textiles found in residual waste can potentially be reused or recycled - to this should be added cushions and leather.
  - 7-8 is the number of times that clothes are worn before being discarded.
  - 12-24 different collections a year are produced by large brands such as Zara and H&M.
  - 1.4 million tonnes of non-reusable textiles collected in the EU in 2025.
  - 25% can potentially be converted to new fibres. For the remaining share, other recycling solutions must be found.
- Allocation of an **increasing proportion of the economy of the producer responsibility system to research** and establishment of recycling solutions in Denmark along with the development of circular business models.
  - Preparation of **requirements for sustainable and long-life design and manufacturing** defining the contribution to be paid to the producer responsibility system by clothing and textile companies.
  - **Ban on the destruction of unused clothing - including unsold clothing** - by, for instance, energy recovery, unless by exemption granted by the State (the Minister for the Environment or the Minister for Climate).
  - Establishment of an **impartial authority following the system closely** to ensure that work is being done actively to attain the targets of the producer responsibility system - always in line with the waste hierarchy.





# Enhanced Cooperation across the Value Chain

Producer responsibility is already in force for some waste types in Denmark: Electronics, batteries, electric bulbs and fluorescent tubes, and vehicles and tyres. In 2025, Denmark will introduce extended producer responsibility on packaging. [Several major industry organisations have declared their preparedness to assume their responsibility.](#) Therefore, it is hoped that the producer responsibility for packaging can contribute to an enhancement of the cooperation between local authorities, producers, and the private companies that are to sort and recycle the waste.

Cooperation is what it takes, also when it comes to clothing and textiles that constitute a growing problem in the waste management chain. Good cooperation in the value chain will pave the way for development in all links of the chain - from design to collection, sorting, and treatment - and it will contribute to the development of new business models based on reuse and repair.

Generally, a producer responsibility system for textiles is a natural follow-up on the system that is to be implemented for packaging; we have a unique opportunity to create the necessary cooperation on changing clothing and textiles from being a troublemaker to being part of the circular economy.



# Foundation is Ready

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In the State administration and among the private industry organisations preparedness and knowledge are in place to turn producer responsibility into the motor for reuse, repair, and recycling - along with less resource-intensive manufacturing.

Lately, [the Danish Environmental Protection Agency has conducted a so-called neighbour-check](#) of experience gathered in our neighbouring countries regarding the regulation of waste textiles. It is seen that in particular France has good experience with producer responsibility on textiles. Consequently, also Sweden has decided to adopt such a system, and considerations are ongoing in the Netherlands.

Observers believe, in addition, that in its coming strategy for circular economy in the clothing and textiles field the EU will recommend the introduction of extended producer responsibility as a political instrument. Furthermore, Denmark has a strong and globally recognised textiles and fashion industry with much focus on sustainability, climate, and environment.

The time has therefore come to take the next, natural step: to give industry the responsibility and opportunity to reduce its resource use and give their products new life through reuse, repair, upcycling, and recycling.

## Facts: Ready-to-go model already developed in Scandinavia

Extended producer responsibility on waste fractions means that the costs for waste collection and treatment are covered by producers, not by consumers - which today is the case for most waste in Denmark.

The implementation of producer responsibility may be difficult in the context of Danish legislation. However, a large part of the preparatory work has already been carried out in the field of textiles:

[The Nordic Council of Ministers, already back in 2015](#) when Denmark held the presidency of the Council - developed various models for how to fit in producer responsibility on textiles in a Nordic (and Danish) context.

By combining the best elements of the successful French model with this Scandinavian foundation Denmark can ensure the best framework for the Danish textiles and fashion industry to become a global beacon within prevention, repair, reuse, upcycling, and recycling of clothing and textiles.







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- Waste is Resources

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*The Danish Waste Association is the industry organisation for local authorities and intermunicipal waste management companies.*