

Unit 4.1 Introduction to waste management

Content

4.1.1 Current textile waste management

4.1.2 Legal and social aspects, and policies

4.1.3 Standards on recycled contents

4.1.4 Problems and sustainability - challenges & outcomes.

4.1.1 Current textile waste management

Waste management hierarchy¹



4.1.1 Current textile waste management

Textile waste collection models

- ▶ For citizens: More than 90% of the collection comes from clothing and footwear containers, both on the street and in public or private establishments, including municipal waste.²
- ▶ For companies: For specific collection associated with economic activities, bulk collection is carried out at the production site, where the textile waste has previously been prepared in sacks, cages, etc.²

Other models for textile waste collection and reduction³ are:



Door-to-door collection



Recycling Center



Social Programs



Green Points

4.1.1 Current textile waste management

Textile waste data in EU

- ▶ Since 1996, the **amount of clothes bought** in the EU per person has **increased by 40%** together with a strong decline in prices, **which has reduced the lifespan of clothing**.
- ▶ Europeans use nearly **26 kilos of textiles** and **discard about 11 kilos of them every year**.
- ▶ Used clothes can be exported from EU, but are mostly (**87%**) **incinerated or landfilled**.
- ▶ Globally **less than 1% of clothes are recycled as clothing**, partly due to the lack of adequate technology solutions.⁴

Current textile waste destinations



87% landfilled or incinerated



13% recycled in some way after use

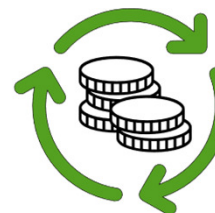
4.1.2 Legal and social aspects, and policies

- ▶ The EU launched the **first Circular Economy Action Plan** in 2015, which guides the EU circular economy (CE) transition.
- ▶ The action plan includes 54 CE action point.

Waste reduction targets

- ▶ Common EU goals for the gradual increase in municipal waste recycling.
- ▶ To reduce landfilling to a maximum of 10% of municipal waste by 2035.
- ▶ Obligations for Member States to establish separate collections of certain waste types, including the obligation to establish separate collections of textiles and hazardous waste from households by 1st of January 2025.⁵

Expected outcomes



Transition to a CE



New jobs generation



Boosting global competitiveness



Fostering sustainable economic growth

55% by 2025,
60% by 2030
& 65% by 2035.

4.1.2 Legal and social aspects, and policies

Extended producer responsibility (EPR)

- ▶ EPR, can be defined as:

“An environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle.”

- ▶ EPR is typically understood to involve a shift in responsibility (**administratively, financially or physically**) from governments or municipalities to producers as well as an encouragement of producers to take environmental considerations into account during the design and manufacture phases of product development.⁶

Desire results



EPR seeks to achieve a reduction in the environmental impact of products, throughout their lifespan, from production through to end-of-life.



To promote sustainable textiles and treatment of textile waste in accordance with the waste hierarchy.



Measures to extend producer responsibility to cover the whole product lifecycle via new business models.

4.1.3 Standards on recycled contents



- ▶ GRS is an international, voluntary, full product standard that sets requirements for third-party certification of Recycled Content, chain of custody, social and environmental practices, and chemical restrictions.⁷

Goals

- ▶ To promote the use of recycled materials in products and reduce/eliminate harms caused by production.⁸



- ▶ The RCS and GRS are similar, but the GRS is a more rigorous standard.
- ▶ The recycled content requirement in GRS certification is more than 20%; whereas the RCS certification only requires a minimum of 5%.
- ▶ GRS requires environmental and social responsibility audits; RCS does not.
- ▶ Companies should choose GRS or RCS, depending on the customer needs and the product specifications.⁹

4.1.4 Problems and sustainability – challenges & outcomes

Textile environmental impact

Water Use

- ▶ It is estimated that the global textile and clothing industry used **79 billion cubic metres of water** in 2015.
- ▶ **2,700 litres** of fresh water are required to make a **single cotton t-shirt** - enough to meet one person's drinking needs for 2.5 years.⁴

Water Pollution

- ▶ **Textile production** is estimated to be responsible for about **20% of global clean water pollution** from dyeing and finishing products.
- ▶ Washing synthetics releases an estimated 0.5 million tonnes of microfibres into the ocean per year.
- ▶ Laundering synthetic clothes accounts for 35% of primary microplastics released into the environment. A single laundry load of polyester clothes can discharge 700,000 microplastic fibres that can end up in the food chain.⁴

4.1.4 Problems and sustainability – challenges & outcomes

Textile environmental impact

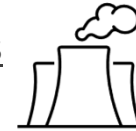


Textile waste in landfill or incinerated



- ▶ Most clothes in the EU are still discarded and subsequently incinerated, or they end up in a landfill where they release methane.
- ▶ The Landfill Directive requires Member States to reduce the share of municipal waste landfilled to 10 % by 2035.⁴

Greenhouse gas emissions

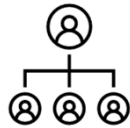


- ▶ It is estimated that the fashion industry is responsible for **10% of global carbon emissions**.
- ▶ According to the European Environment Agency, textile purchases in the EU in 2017 generated about **654 kg of CO2 emissions per person**.
- ▶ The global textiles and clothing industry was responsible **1715 million tons of CO2 emissions** in 2015.⁴

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UNIT 4.1 Introduction to Waste Management

4.1.4 Problems and sustainability – challenges & outcomes

Promote actions for the prevention and reuse of textile waste.



EPR (Extended Producer Responsibility)



WRAP Textile action



Sustainability textile Ecolabel and sustainable communication



Revalorisation of textiles by companies



Eco-friendly policies



Swishing-swapping

MODULE 4 Waste Management and Recycling
UNIT 4.1 Introduction to Waste Management

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MODULE 4 Waste Management and Recycling

UNIT 4.1 Introduction to Waste Management

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