Microplastic pollution from textiles consumption in Europe



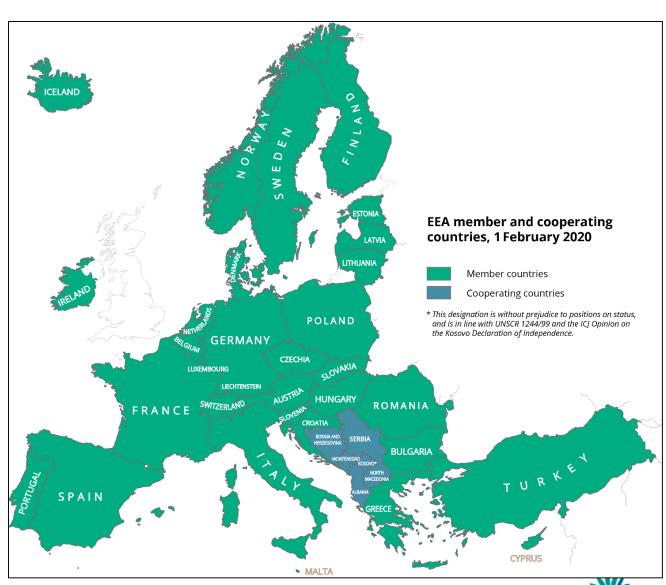
Lars Fogh Mortensen, European Environment Agency (EEA)

The European Environment Agency (EEA)

EEA has an EU mandate to monitor Europe's environment and climate



I am responsible for our work with textiles, plastics and consumption in a circular economy



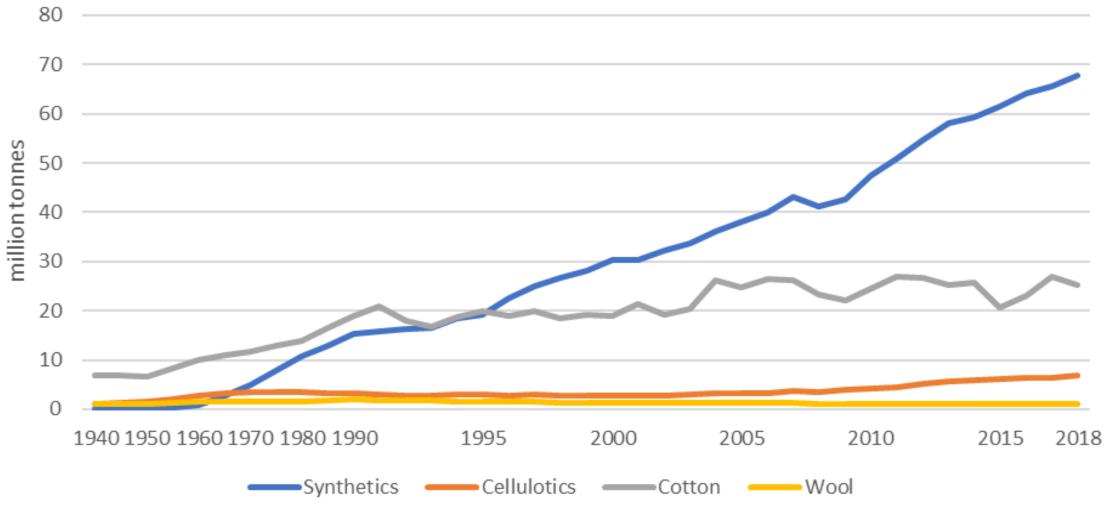
Points

- 1. EU textiles consumption have on average the fourth largest environmental impacts
- 2. Textiles is a major source of microplastics pollution
- 3. New EU policy on textiles and plastics aim to reduce microplastic emissions



Global fiber demand

Global fiber demand, 1940-2018, million tonnes per year







Environment EU consumption of textiles: 14.8 kg per person, 2020

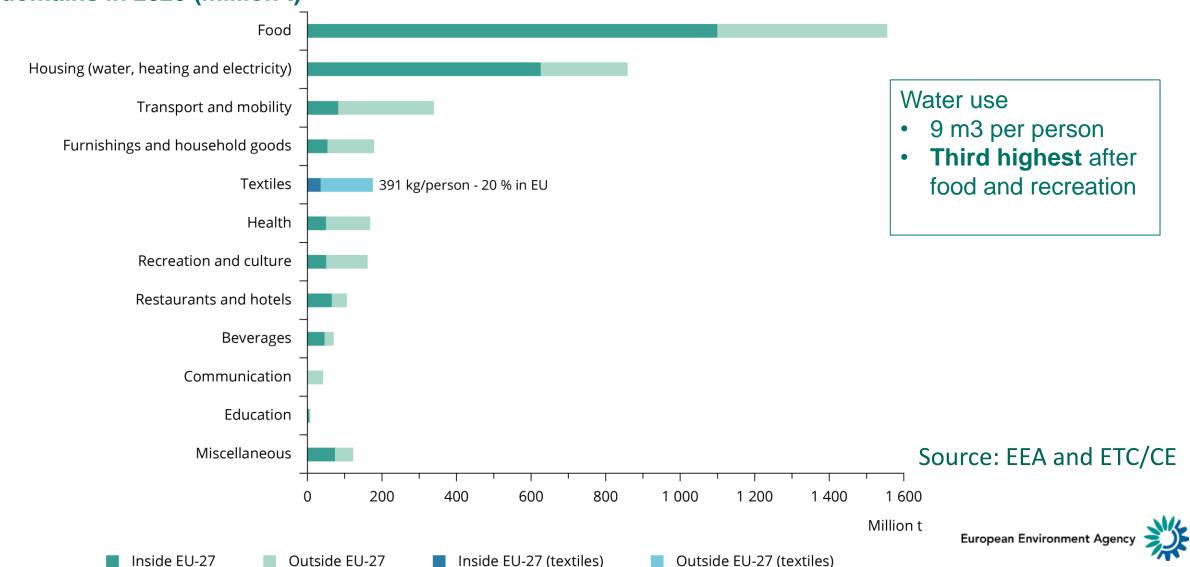


Source: EEA and ETC/CE



Textiles have on average the fourth highest impacts from a consumption perspective

The use of primary raw materials in the upstream supply chains of EU-27 household consumption domains in 2020 (million t)



Points

- 1. EU textiles consumption have on average the fourth largest environmental impacts
- 2. Textiles is a major source of microplastics pollution
- 3. New EU policy on textiles and plastics aim to reduce microplastic emissions





EEA briefing

Microplastics from textiles: towards a circular economy for textiles in Europe (with underpinning report)







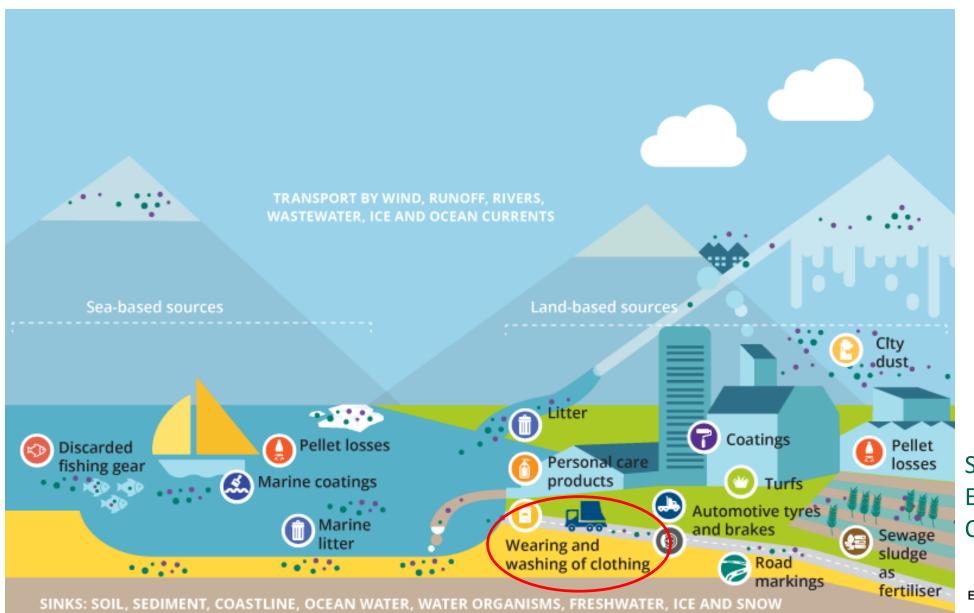
Key messages

- 1. Over 14 million tonnes of microplastics have accumulated on the world's ocean floor
- 2. About 8% of European microplastics released to oceans are from synthetic textiles globally, this figure is estimated at 16-35%
- 3. The majority of microplastics from textiles are released the first few times textiles are washed
- 4. Microplastics from textiles can be reduced by better design and production, use and caretaking and waste handling





Sources of microplastic in the environment

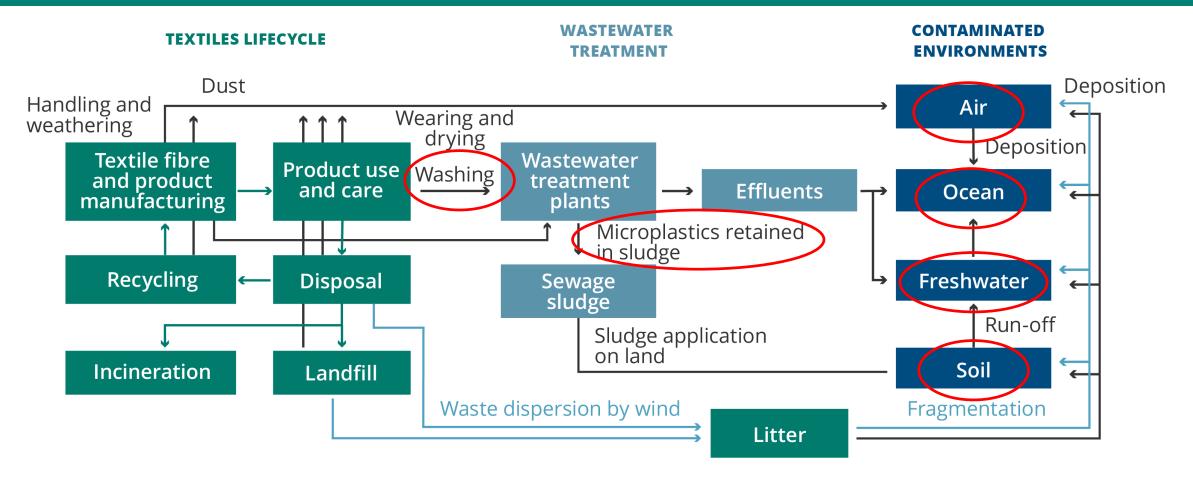


Source: EEA and ETC/CE, illustration by CSCP





Release and fate of microplastic from textiles

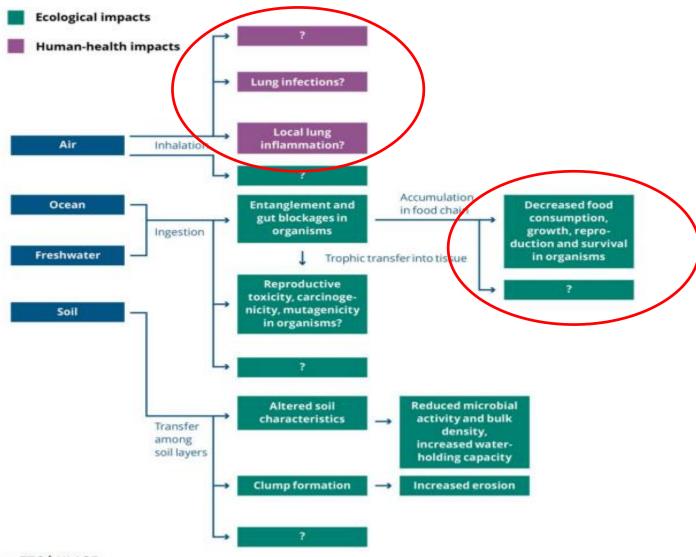


- → Material and product flows
- → Microplastic release and transfers
 - → Macroplastic release and transfers





Exposure routes and hazardous effects



Source: ETC/WMGE

Invironment Pathways to prevent releasing microplastic from textiles

Design and production

Use of natural instead of synthetic fibres

Alternative manufacturing processes

Pre-washing at manufacturing plant

Use and caretaking

Integration of filtering technologies in washing machines

Development of mild detergents

Caretaking and washing guidelines

Longer use of textile products

Disposal and end-of-life processing

Better textile management

Proper wastewater treatment

Management of wastewater treatment sludge

Cleanup of microplastics from the environment

Points

- 1. EU textiles consumption have on average the fourth largest environmental impacts
- 2. Textiles is a major source of microplastics pollution
- 3. New EU policy on textiles and plastics aim to reduce microplastic emissions



Extract from EU Textiles Strategy



Fourth highest impact on the environment and climate change, after food, housing and mobility.



It is one of the **top three**pressures on water and land use,
and the **top five** in terms of
raw material use and greenhouse
gas emissions.



EU Commission textiles vision for 2030



All textile products placed on the EU market are:

- · durable, repairable and recyclable
- to a great extent made of recycled fibres
- free of hazardous substances
- produced respecting social rights



"Fast fashion is out of fashion" - consumers benefit longer from **high quality textiles**



Profitable **re-use and repair services** are widely available



In a **competitive, resilient and innovative textile sector** producers take responsibility for their products along the value chain



Circular rather than throw-away clothes have become the norm, with sufficient capacities for recycling and minimal incineration and landfilling





Elements in the EU textiles strategy



Propose mandatory Extended Producer Responsibility for textiles with ecomodulation of fees



Address the unintentional release of microplastics from synthetic textiles



Restrict the **export of textile waste** and promote sustainable textiles globally



Incentivise **circular business models**, inlcuding reuse and repair sectors



Encourage companies and Member States to **support the objectives** of the Strategy

With revision of waste framework directive in 2023

Binding design requirements and further proposals in July 2022

The EU will pursue global progress towards more sustainable and circular textiles in international fora

Facilitate the scaling up reuse, repair and other new circular business models in the textiles sector





Elements in the EU textiles strategy



Set **design requirements for textiles** to make them last longer, easier to repair and recycle, as well as requirements on minimum recycled content

Revised EU Eco-design Directive with mandatory design requirements for textiles



Introduce clearer information and a Digital Product Passport

Mandatory digital product passport for textiles



Tackle greenwashing to empower consumers and raise awareness about sustainable fashion

Commercial guarantee of durability as well as information relevant to repair



Reverse **overproduction and overconsumption**, and **discourage** the destruction of unsold or returned textiles

Transparency obligation and bans on the destruction of unsold products, including as appropriate, unsold or returned textiles.

European Environment Ag



Lars.Mortensen@eea.europa.eu; www.eea.Europa.eu

