Creating a more circular textiles sector: including the EcoDesign Regulation

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Sustainable textiles in EU Policy

Textile Strategy,
Transition Pathways
Legislation

Good dialogue

and a long way to go

March Announcement

Upcoming legislation (selection)

Law	Highlights
Eco-design (ESPR)	• Set design garments required specifications & Digital Product Passport

DURABLE

Upcoming legislation (selection)

Law	Highlights
Eco-design (ESPR)	• Set design garments required specifications & Digital Product Passport

Early thoughts on:

- Scope: Garments first
- Requirements: based on industry/ available standards
- Value of requirements to be thoroughly discussed
- "sustainability mix" examples of flexible approaches in Taxonomy

Research needed on:

- Durability
- Recycled contents
- Recyclability (be mindful of legislation and innovation timing)

Disclaimer: information herein is indicative and does not represent an official EURATEX position

# Circ. Eco. relevant upcoming legislation (selection)

Law	Highlights	Status
Eco-design (ESPR)	• Set design garments required specifications & Digital Product Passport	
Due Diligence	• Large companies to report on their value chain, small ones affected	
Extended Producer Responsibility (EPR)	• Need EU-wide harmonisation & funds to support circular economy in textiles	
Waste F. Directive	• NEW, may set EPR across EU and promote waste definition/ prevention	
Green Claims	• Stop greenwashing, Labelling and communication on products – expected Q1 2023	
Product Env. Footprint (PEF)	• Rules under development and testing, public communication upcoming	
Taxonomy	• Defines "sustainable investments", Delegated Act consultation upcoming	
GPP	• Revision of the Green Public Procurement Directive – states/ authorities to lead by example and choose sustainable textile products/ services	
Skin Sensitis. Restriction	• Safety first, then need to balance Zero Pollution (ambition) and circular economy goals	

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Europe has a 7-7.5 million tons textile waste problem, of which only 30-35% is collected today

EU-27 and Switzerland textile waste volume, million ton
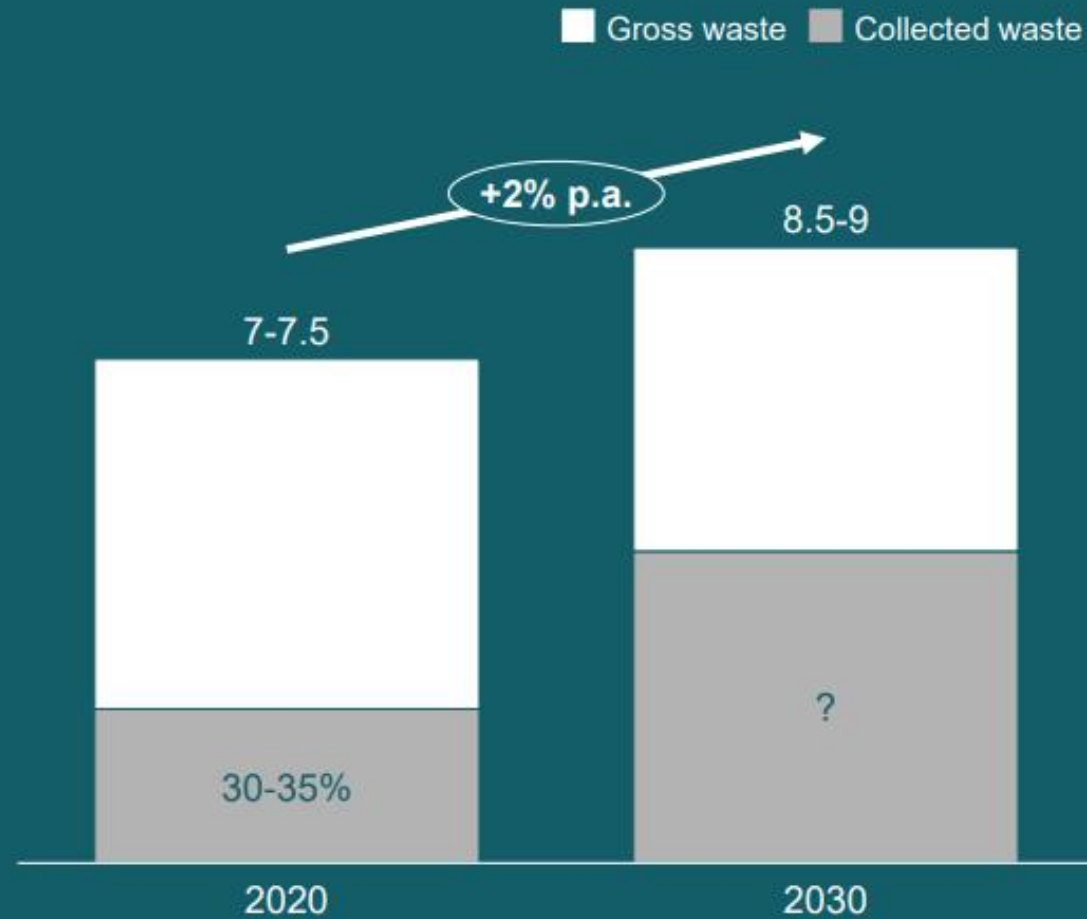
☐ Gross waste   ◻ Collected waste
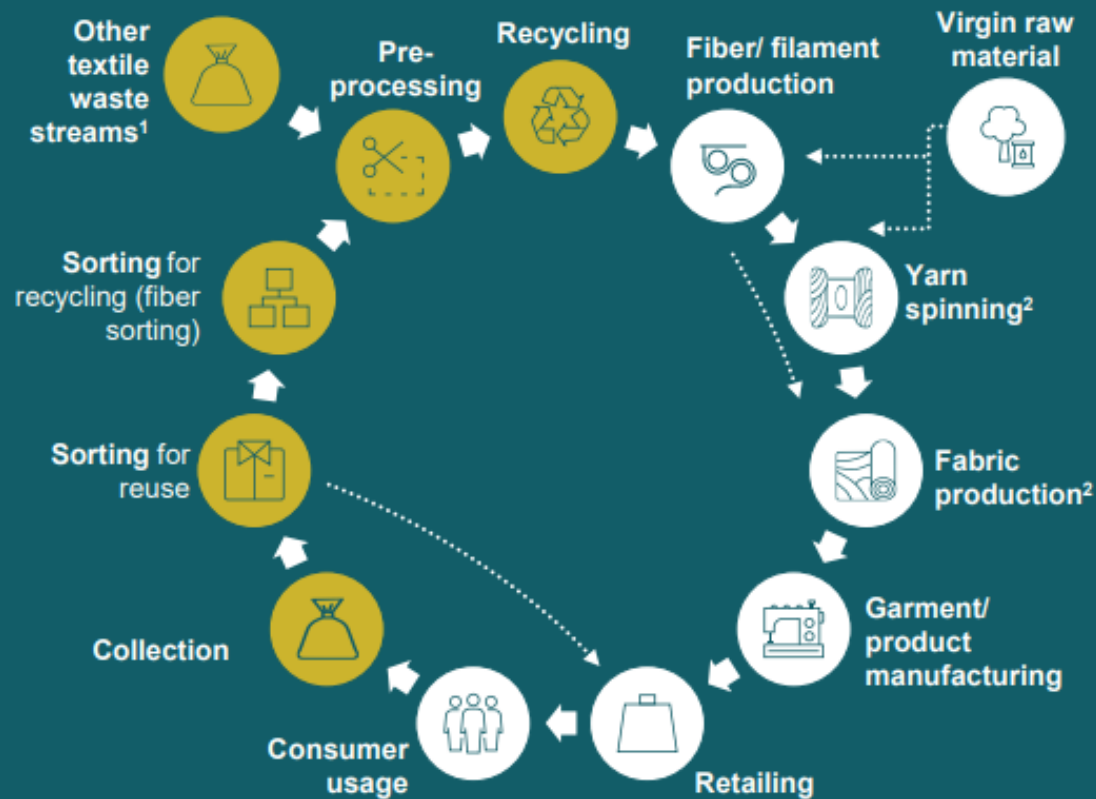
+2% p.a.

8.5-9

7-7.5

30-35%

?

2020   2030

The value chain for textile recycling is not yet mature – but we may at the brink of a turning point as different technologies race to scale

The closed-loop textile recycling value chain

● Traditional linear textile value chain steps   ● New value chain steps to create closed-loop textile circularity

Other textile waste streams[1] → **Pre-processing** → **Recycling** → **Fiber/ filament production** ← **Virgin raw material**

Sorting for recycling (fiber sorting)

Yarn spinning[2]

Sorting for reuse

Fabric production[2]

Collection

Garment/ product manufacturing

Consumer usage ← **Retailing**

Value chain gaps

To go from a linear textile value chain to a circular textile-recycling value chain, **five main parts of the value chain must be matured and scaled**

In addition, the creation recycled fibers in Europe could be an *opportunity for near-shoring*

1. For example, unsellable overstock from brands or retailers, production spill from industry, or post-consumer commercial waste
2. Partly subject to in-house recycling; could be the direct next step after recycling.

Source: Expert interviews; McKinsey analysis; TES

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This new circular value chain would require significant capacity with 150-250 facilities

Overview of required capacity[1] in EU-27 and Switzerland, 2030
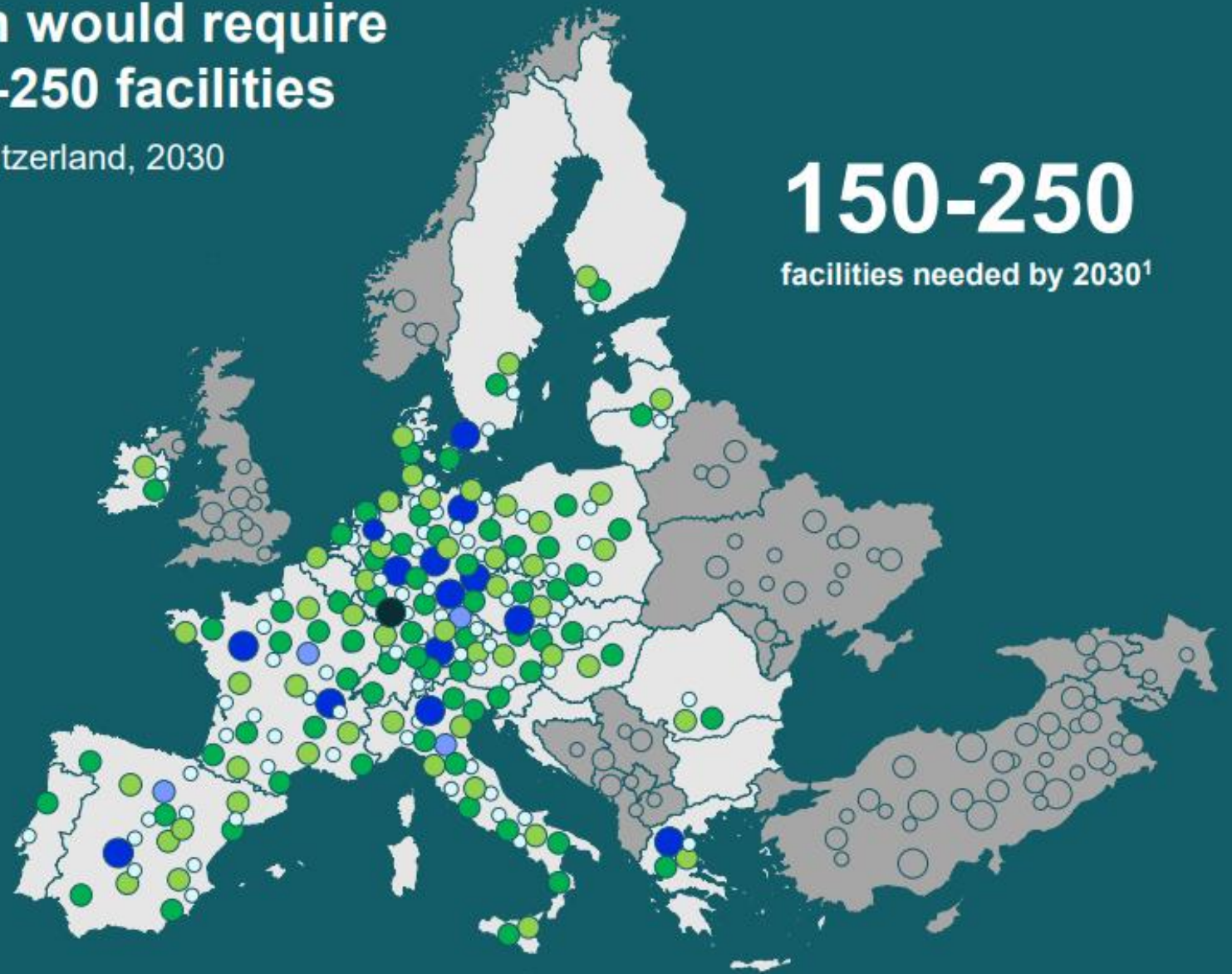
THIS IS A SCENARIO AND NOT A FORECAST   **ILLUSTRATIVE LOCATIONS**

- 🟢 Sorting for re-use
- 🟩 Sorting for recycling
- ⚪ Mechanical recycling
- 🔵 Thermo-mechanical
- 🔵 Chemical recycling
- ⚫ Thermo-chemical
- 🔘 Illustrative facilities outside EU-27 and Switzerland

Scale, tons

- ○ 25 000
- ○ 50 000
- ○ 100 000

150-250

facilities needed by 2030[1]

1. The project overview reflects the estimated amounts of facilities required in base case scenario where EU-27 and Switzerland reach a 50 percent collection rate and a upside scenario where 80 percent collection is reached; standardized non-integrated facilitiess are assumed for simplicity; Average plant sizes differ for the technologies. The assumed scales (in Ktn/year) are: Sorting (reuse) 50,000; Sorting (recycling) 50,000; Open-loop 25,000; Closed-loop traditional 25,000; Closed-loop soft 25,000; Thermo-mechanical 50,000; Chemical - cellulosic 100,000; Solvent-based 100,000; Chemical - Polyester 100,000; Thermo-chemical 100,000; For some of the value chain steps (sorting for re-use, open-loop mechanical, and closed-loop traditional mechanical) there exists some share of needed capacity already today.

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However, success is not given and there are multiple ingredients to success of scaling textile recycling in Europe

Ingredients of success for textile recycling in Europe, identified by a McKinsey paper (July 2022)

Critical scale

Real collaboration

Transition funding

Investments

Public sector push

McKinsey
& Company

Apparel, Fashion & Luxury Group

Scaling textile recycling in Europe – turning waste into value

McKinsey identifies *five ingredients for success* in their paper of scaling textile recycling in Europe

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