

# Maximising Circularity of Polyesters

How Molecular Recycling is driving system change.

# A materials innovation company

Eastman is a materials innovation company that is:

- A Fortune 500 company with approx. 10.6 billion USD in revenue and more than 100 years of vital innovations
- Dedicated to enhancing the quality of life in a material way
- Celebrating the inclusion of its diverse global workforce; 14,500 employees
- Committed to mitigating climate change, mainstreaming circularity and caring for people and society



**EASTMAN**

# Eastman's molecular recycling project in Port-Jérôme-sur-Seine, Normandy, France

## Key facts and figures



**200,000+** tonnes of waste processed/year.



**350** direct jobs



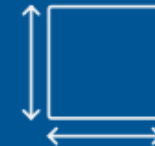
Phase I of plant start-up in **2026**



**1,500** indirect jobs in recycling, energy and infrastructure



**\$1 billion** of investment for phase I



**40-hectare plot** on the industrial zone of Port-Jérôme

# Maximum circularity of PET packaging and polyester textiles: what is possible and what will it take?

SYSTEMIQ

## Circular PET and Polyester

A circular economy blueprint for  
packaging and textiles in Europe

July 2023



SYSTEMIQ

Executive summary

Introduction

Future circularity pathways

Delivering circularity potential

Conclusions



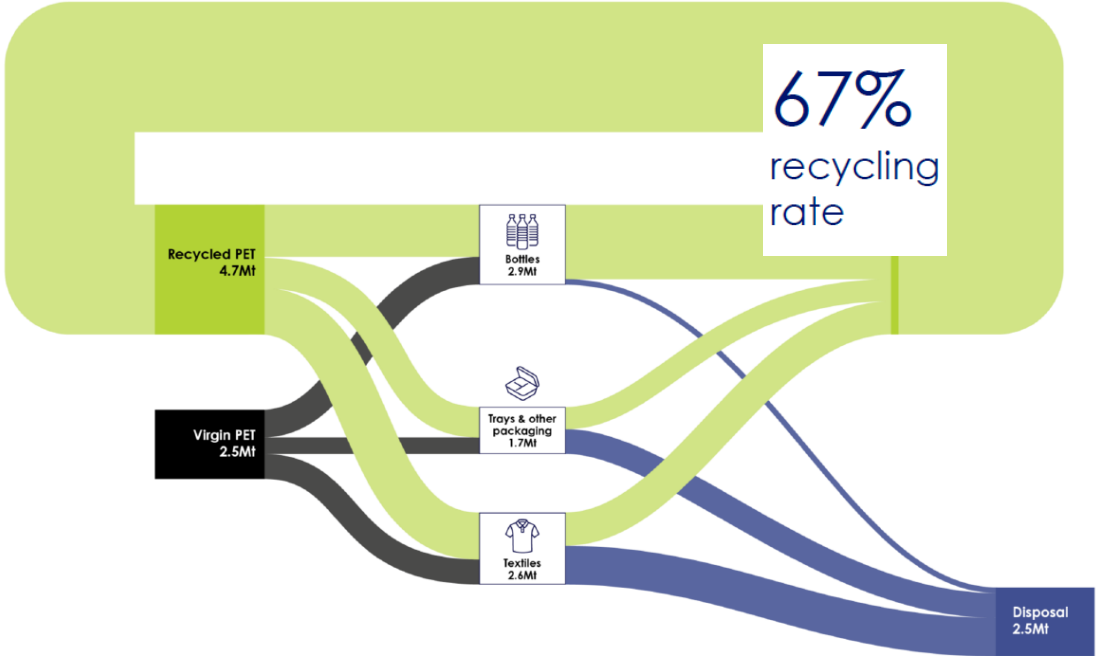
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# How circular are we today?

2020 material flow for PET packaging and polyester textiles in Europe



2040 material flow for PET/polyester in Europe (Ambitious Complementarity Scenario)

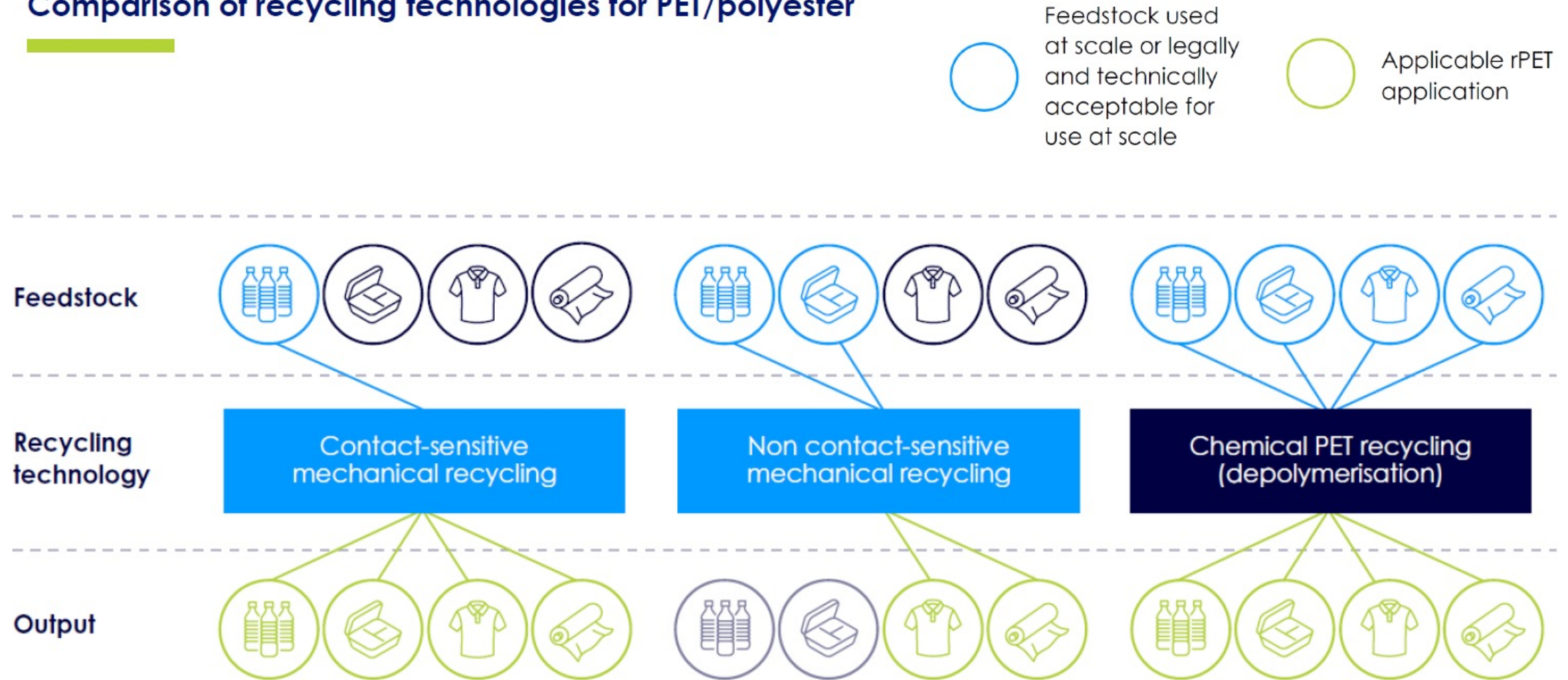


Note: Details of modelling assumptions can be found in Systemiq report: [Circular PET and Polyester, 2023](#)



# Should 'chemical recycling' be a part of the PET/polyester solution?

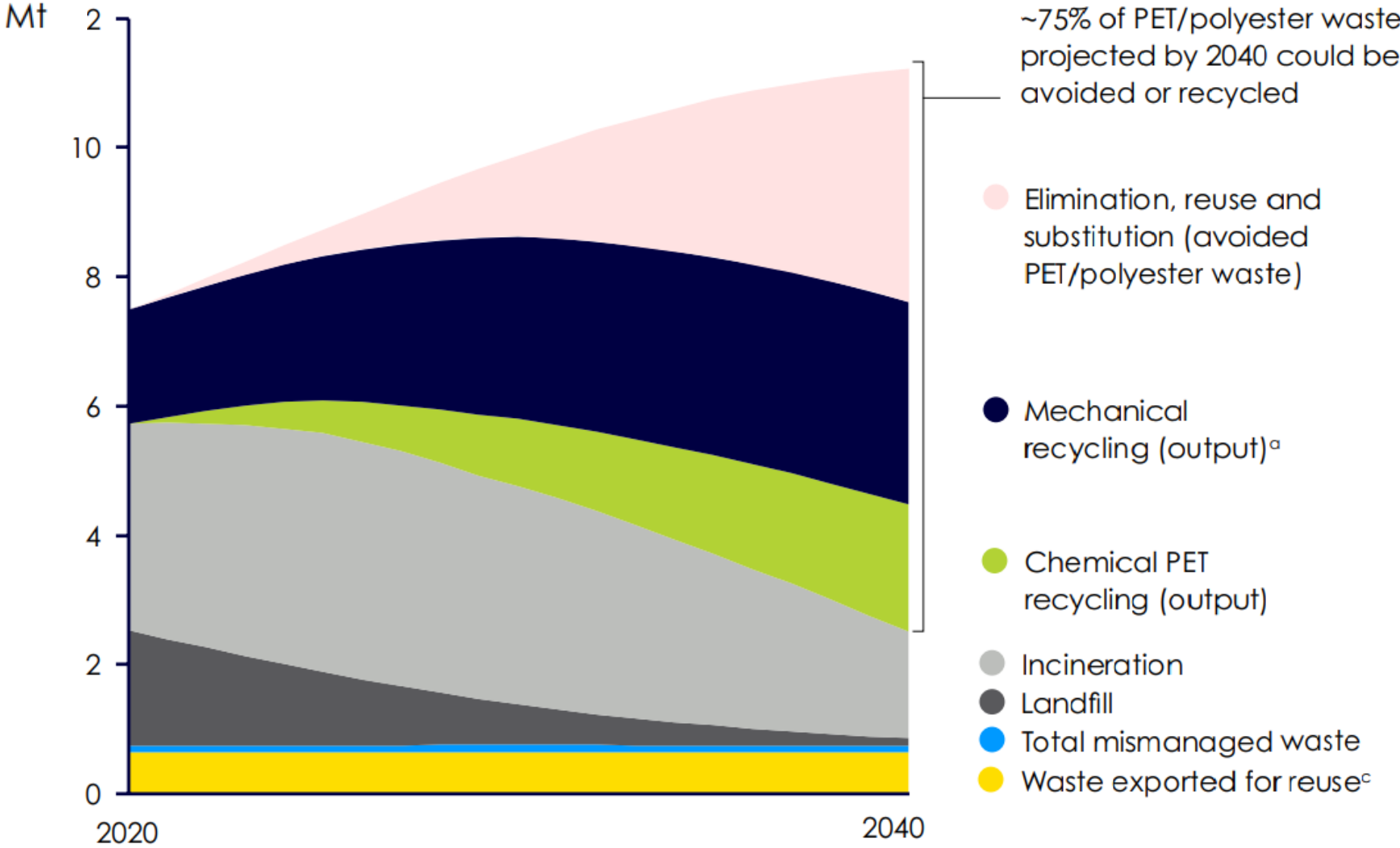
## Comparison of recycling technologies for PET/polyester



Source: Systemiq analysis

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# Ambitious Complementarity scenario





# IMPLEMENTING SYSTEMS CHANGE

## How we can meet future demand for PET

By implementing these actions, by 2040 we will see:



Less PET/polyester consumption.



Less PET/polyester going to landfill or incineration



Reduction in GHG emissions



Transformation of contact-sensitive 'waste' into valuable materials

Expand collection and sortation for recycling.



Collection

Scale up and improve mechanical and chemical recycling infrastructure.



Recycling

Implement reuse models.

Design for recyclability.

Substitute hard-to-recycle material for more recyclable options.

Secure long-term demand for recycled polyester.

FULLY CIRCULAR PLASTICS VALUE CHAIN



Design & Production



Consumption | Slow down fast fashion.

Source: Achieving Circularity of PET Packaging and Polyester Textiles in Europe, SystemIQ, 2023; PET Market In Europe 2022, Eunomia, 2022; Eastman Analysis

REDUCTION + REUSE + MECHANICAL RECYCLING + CHEMICAL RECYCLING

Creating  
**systems change**

through  
**innovation &  
collaboration**

# Circular Economy



- What infrastructure changes are needed to support this?
- Do standards exist to support?
- Are NGOs supportive? Trade associations aligned?
- How does policy/regulation impact this?
- Can products be redesigned with recyclable materials? Reusables?
- Who are likely partners for key businesses collaborations?

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## Questions?

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*Eastman's molecular recycling facility in  
Kingsport, Tenn.*

