



Mainstreaming Circular Economy

EASTMAN



SUSTAINABLE INNOVATION:

Eastman's legacy continues

Content

- **About us:** A material innovation company
- Advanced Circular Solutions overview
- The path forward to a sustainable future



A materials innovation company

- More than **100 years of vital innovations that enhance people's lives every day**
- A Fortune 500 company with approximately:
 - **14,500 employees**
 - **10 billion USD** in revenue in 2020
- Dedicated to **enhancing the quality of life in a material way**
- Sustainability strategy commitment to:
 - **Mitigating climate change**
 - **Mainstreaming circularity**
 - **Caring for people and society**



BARCLAYS
Most Sustainable
Companies
2021

WSJ
100

MOST SUSTAINABLY
MANAGED
COMPANIES 2020



Global
Commitment



EASTMAN

A diverse portfolio of businesses

Additives & Functional Products



2020 sales revenue: \$3.0B
36% of total Eastman sales

Advanced Materials



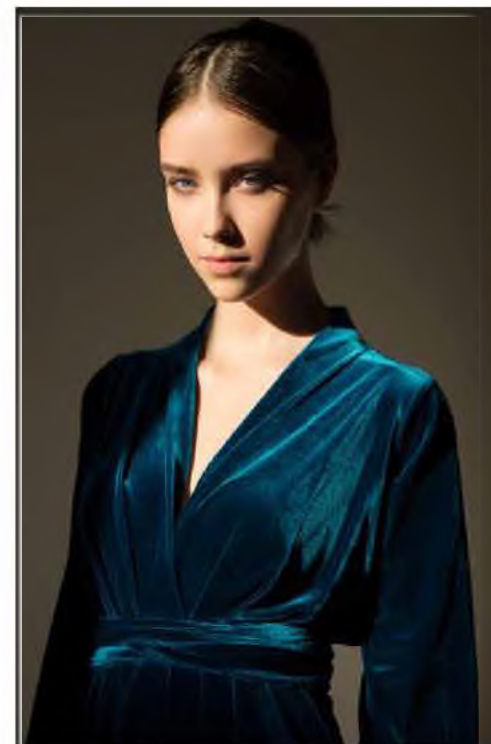
2020 sales revenue: \$2.5B
30% of total Eastman sales

Chemical Intermediates



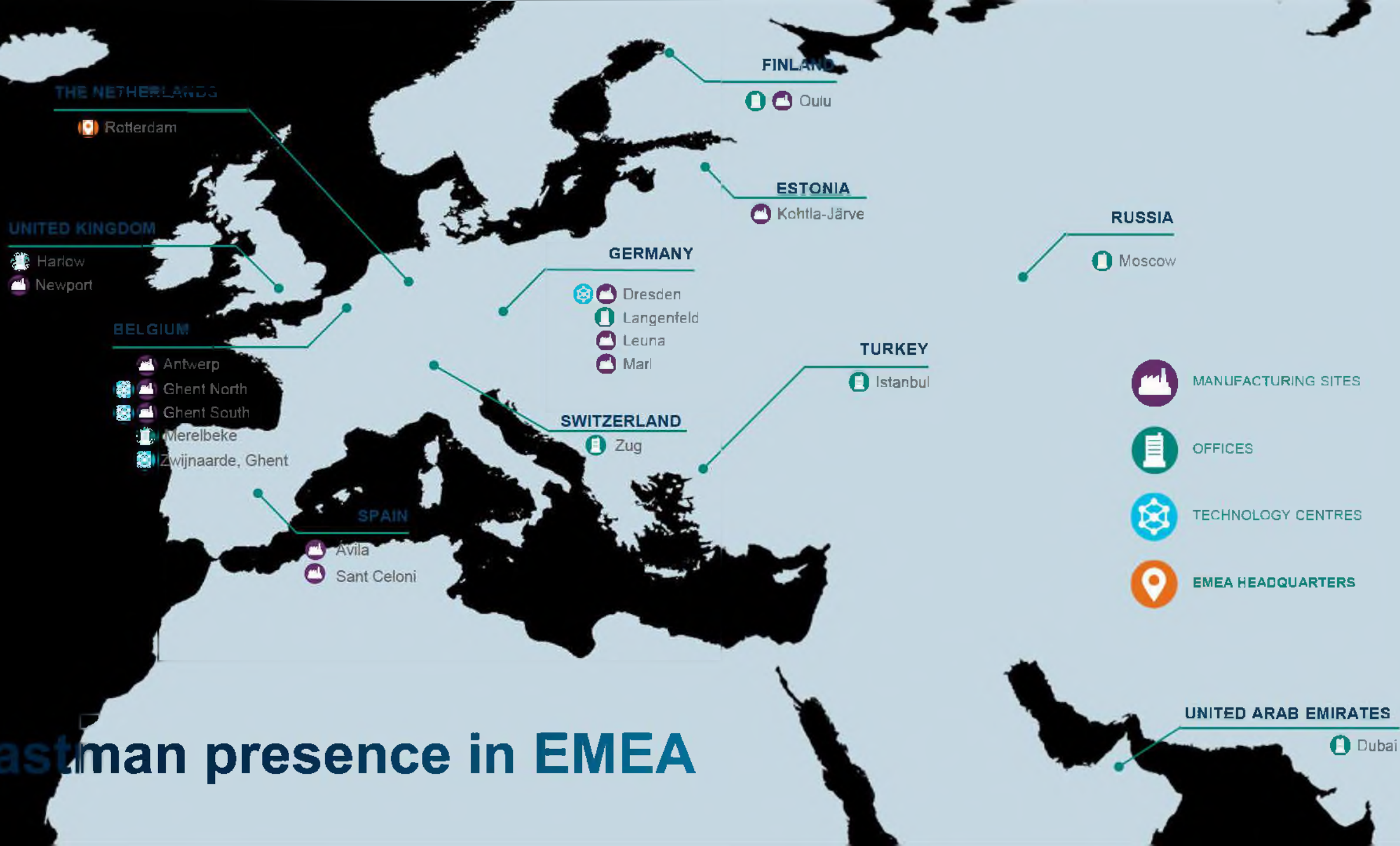
2020 sales revenue: \$2.1B
25% of total Eastman sales

Fibers



2020 sales revenue: \$837M
9% of total Eastman sales

Eastman presence in EMEA



Sustainable innovation

driven by the world's greatest challenges



SOCIETY



Replacing antibiotics
in feed additives



VOC/odor-free
hygiene



BPA-free in
medical



BPA-free in F&B
packaging coatings



CLIMATE



Light-weighting
electric vehicles



Improving energy
efficiency in housing



Improving energy
efficiency in auto



CIRCULARITY

Carbon Renewal
Technology



Naia™ Renew
in textiles



Acetate Renew
in ophthalmics



Tritan™ Renew in
durables, electronics



Cristal™ Renew
in cosmetics

Polyester Renewal
Technology

Together,
we build
a better circle

EASTMAN

Committed to creating change. **NOW.**

LINEAR ECONOMY

Where we've been



CIRCULAR ECONOMY

Where we're going

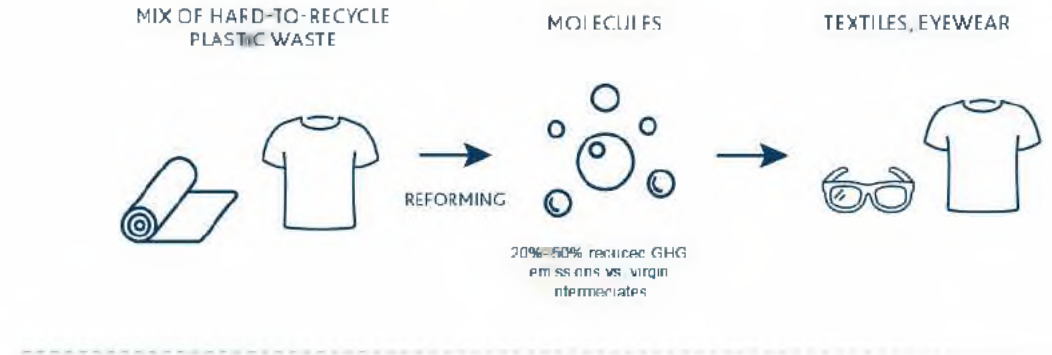


Advancing circular solutions: Our vision

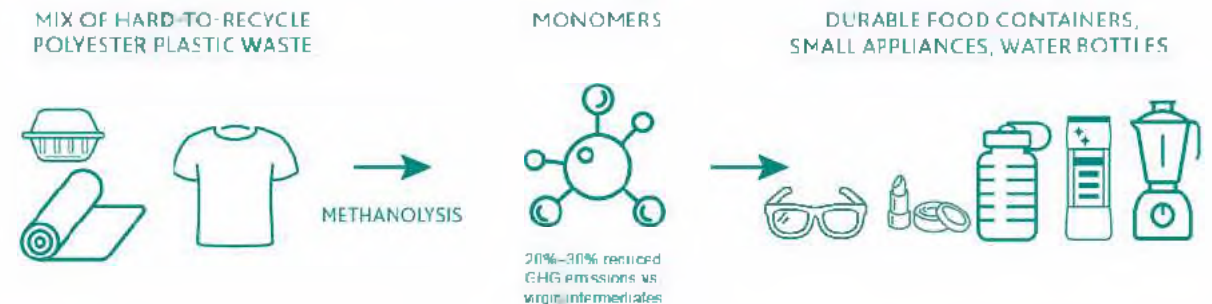
At Eastman, we believe in a true circular solution:

- Is **material to material**, not material to fuel
- Is **complementary** to mechanical recycling
- **Prevents** landfill or incineration
- Produces products **with equivalent or better performance** relative to the original process
- **Reduces the amount of new fossil feedstocks** (or hydrocarbons) that would otherwise need to be extracted
- Has a **carbon footprint better than** the original manufacturing process for the same product

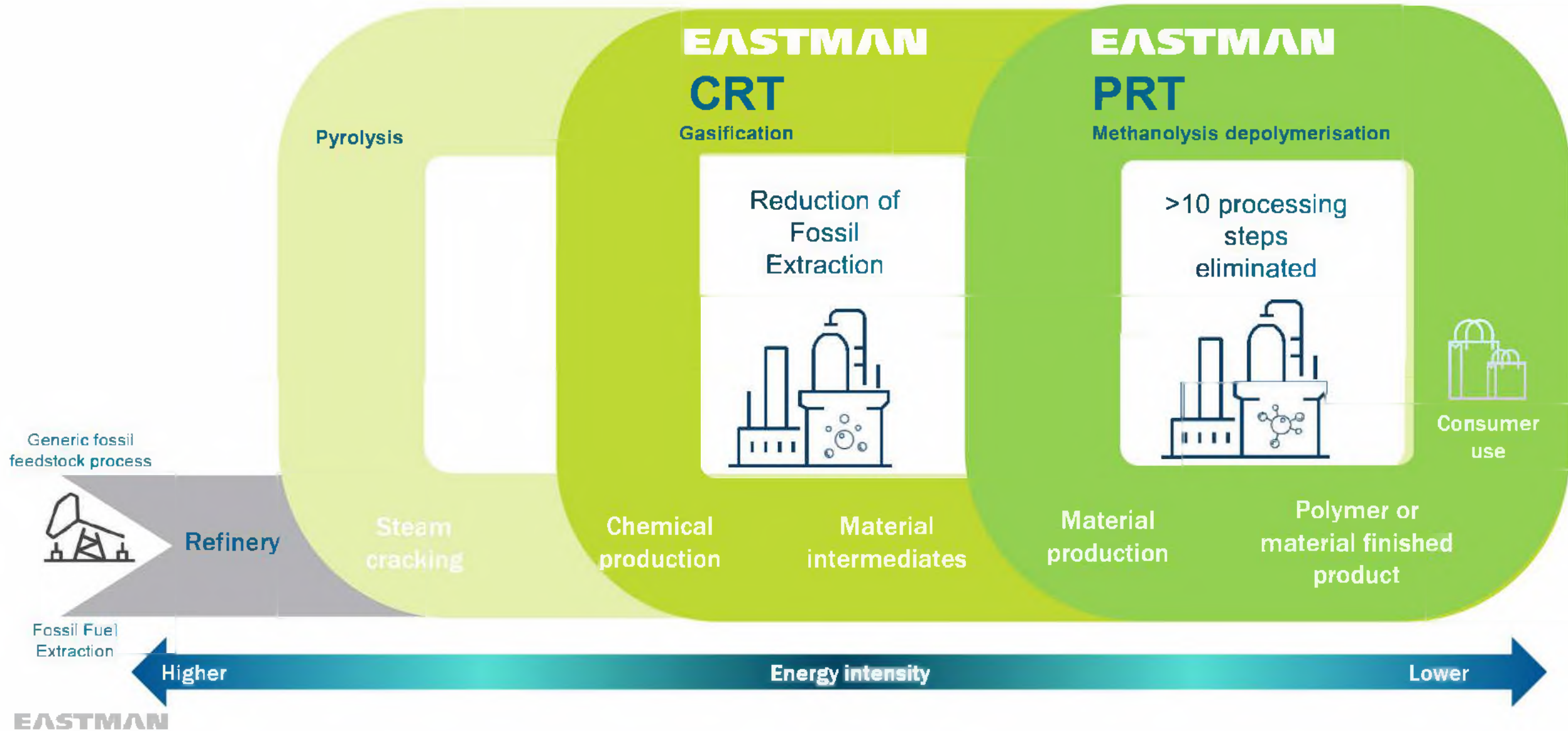
CARBON RENEWAL TECHNOLOGY (CRT)



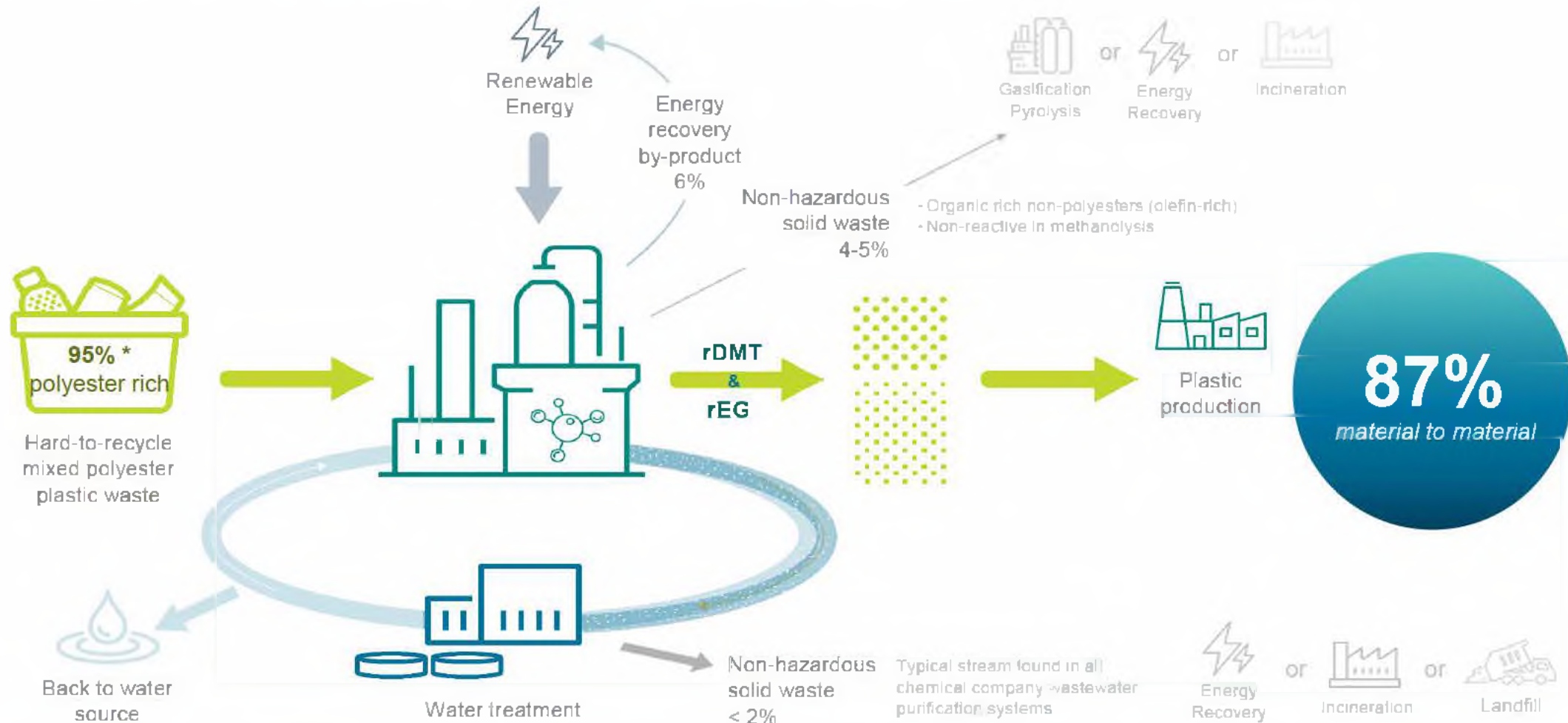
POLYESTER RENEWAL TECHNOLOGY (PRT)



General technology comparison



PRT: Where does the material go?



93% conversion to monomers at polyester level. Up to 80% reduction in GHG emissions vs. traditional materials.

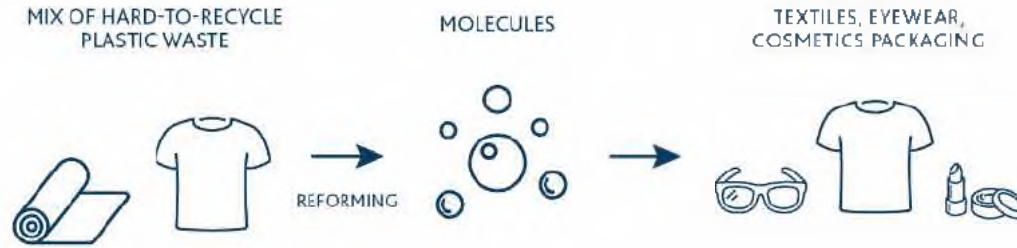
A big step towards a smaller footprint

To assess our technologies environmental impact, Eastman runs LCAs that are externally reviewed and verified by a third party.

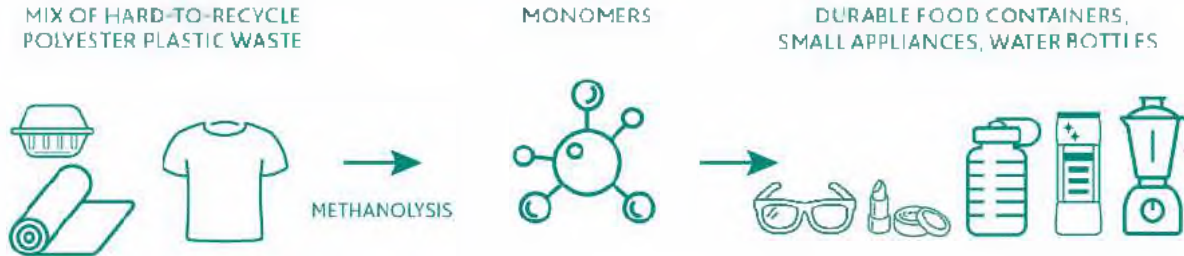
CRT

Enables a
20% - 50%
reduction in
carbon footprint.

CARBON RENEWAL TECHNOLOGY (CRT)



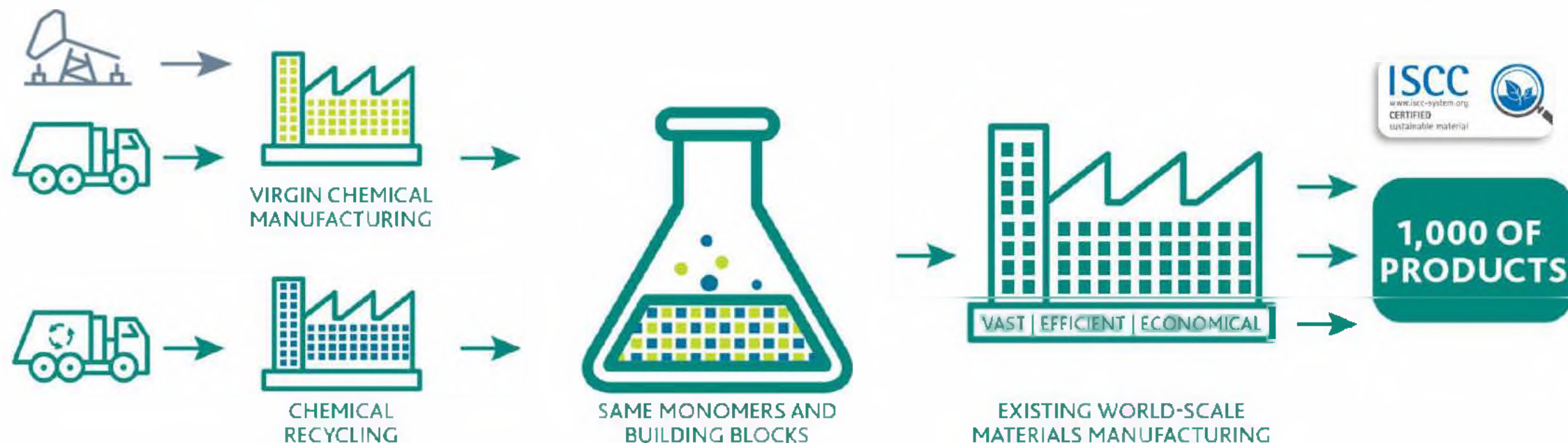
POLYESTER RENEWAL TECHNOLOGY (PRT)



PRT

Enables a
20 - 30% reduction
in carbon footprint
in the production
of key building
blocks
(monomers).

Mass balance allows recycled feedstocks and fossil feedstocks to be processed together



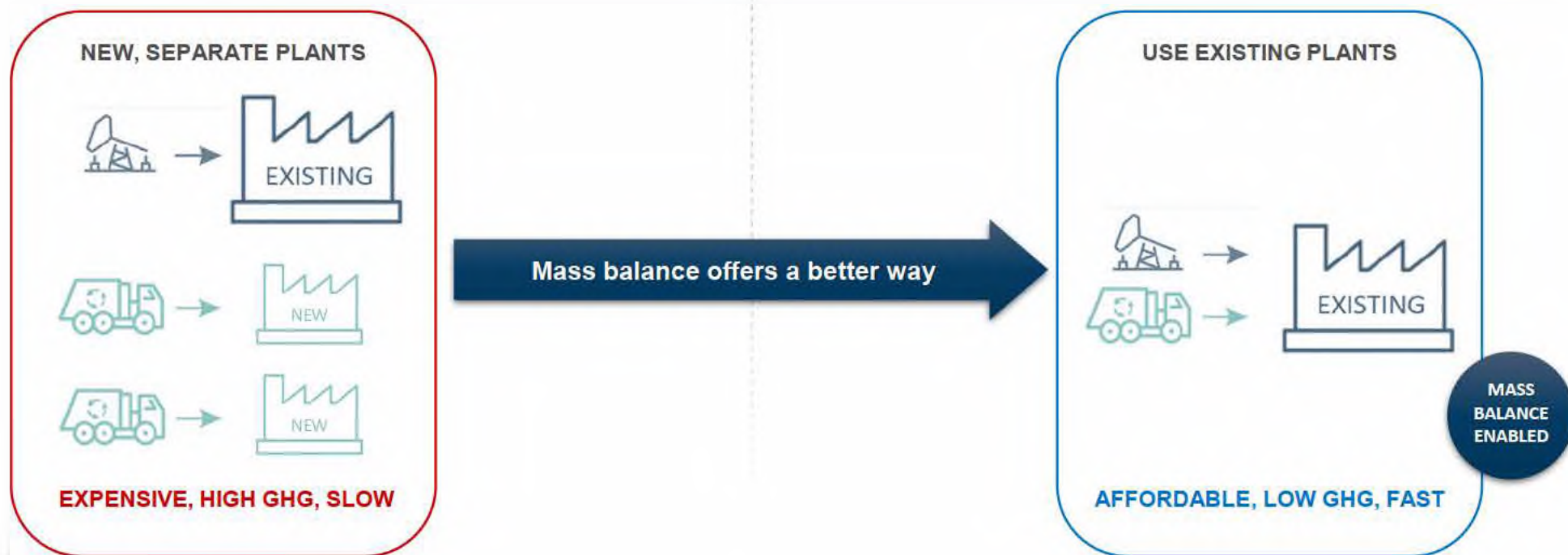
Mass balance

- Is an accounting system that enables chemical recycling to happen at massive scale
- Tracks recycled materials co-processed together with virgin in existing assets
- Guarantees the recycle content allocated to products balances with inputs
- Enables linkage of recycled capability to market demand

Mass balance is necessary to achieve scale now

Without mass balance, duplicate infrastructure is required (plants, storage, logistics, etc.), essentially making it cost prohibitive to get to large scale by **dramatically increasing timelines, costs, and carbon footprints.**

With mass balance, existing assets can be modified to start **scaling waste plastic as feedstock quickly.**

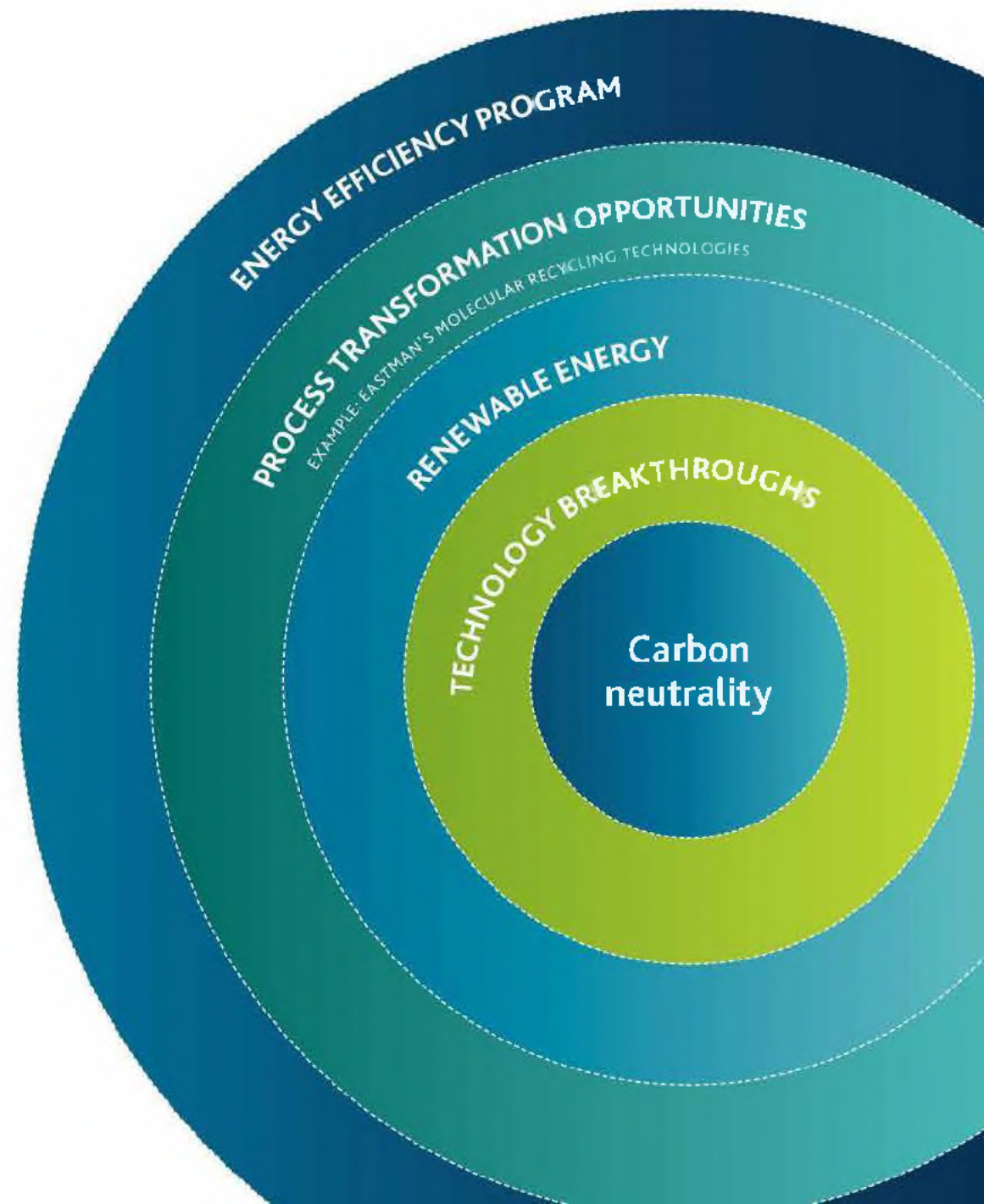


BUILDING A BETTER CIRCLE.

Eastman is activating a circular economy. TODAY.

We are committed to . . .

- Recycle **more than 225,000 MT, of waste plastics** annually by 2030.
- Only pursue **material-to-material technologies** and products that have a **lower greenhouse gas footprint** compared to those that use fossil feedstocks.
- Achieve **carbon neutrality** by 2050.





What's next

World's largest plastic-to-plastic molecular recycling facility under construction **in the US**



Plant facts

- **>\$250M investment** to build methanolysis plant
- Located at Kingsport, Tennessee facility
- Consuming **100,000 MT** annually of recycled waste plastic¹; will produce recycled monomers
- **Start-up in 2023** as world's largest plastic-to-plastic molecular recycling facility

Renew materials

- Recycled output will be used to produce **150-200 kMT** annually of recycled specialty polymers across our portfolio
- Renew materials will be primarily in **Durable Goods across Housewares, Electronics, Medical, and other applications**

Environmental Impact

- Recycled intermediates with **20-30% lower GHG emissions** compared to conventional processes²
- Resulting in **reduction of >45,000 MT** of CO₂ equivalent emissions³

1 – Projected Eastman annual capacity for methanolysis facility

2 – GWP/GHG reduction for final product resins depends upon specific product grade and composition

3 – Projected greenhouse gas improvement over conventionally produced intermediates

Renew materials from the US Plant will be utilized across our portfolio of specialty polymers



Eastman
Tritan™ Renew



Eastman
Eastar™ Renew



Eastman
Cristal™ Renew



INBLCOM



LVMH

LANEIGE

TupperwareBrands



Dior

CLIO
PROFESSIONAL



IncipioGroup



ESTÉE
LAUDER
COMPANIES

WILLIAMS SONOMA
CALIFORNIA

ZAGG
BRANDS

AMOREPACIFIC

CAMELBAK

nalgene

HydraPak

EASTMAN

OVERVIEW

Plant in Europe



Investing in local
recycling Infrastructure
to support a circular
economy for plastic

World-scale plastic-to-plastic molecular recycling facility announced in Europe



Plant facts

- Up to **1 billion USD** investment to build material-to-material molecular plastics recycling facility
- Located in France
- Consuming **160,000 metric tons** annually of recycled waste plastic¹; will produce recycled monomers
- Expected to be **operational in 2025**, creating employment for **350** people and leading to an additional **1,500** indirect jobs in infrastructure and energy.
- Includes an **innovation center for molecular recycling** to advance alternative recycling methods and applications aimed at curbing plastic waste incineration and leave fossil feedstock in the ground.

Renew materials

- Multi-phase project includes:
 - Units that will prepare **mixed plastic waste for processing**
 - A **methanolysis unit** that will depolymerize the waste, and
 - **Polymer lines** that will create a variety of first quality materials for specialty, packaging, and textile applications.

Environmental Impact

- At this plant, materials can be produced with **greenhouse gas emissions up to 80 percent less** than traditional methods due to the technology's inherent efficiencies and the renewable energy sources available in France.²

1 – Projected Eastman annual capacity for methanolysis facility

2 – GWP/GHG reduction for final product resins depends upon specific product grade and composition

**Eastman has already signed letters of intent
for multi-year supply agreements with
several major brands, including**

LVMH

MOËT HENNESSY • LOUIS VUITTON



L'ORÉAL

**ESTÉE
LAUDER
COMPANIES**

Five ways European policymakers can accelerate the transition to a true circular economy

1 Acceptance of chemical recycling to effectively deal with the plastic waste crisis

It is essential that the definition of recycling remains "technology neutral" at the EU level.

2 Securing a constant flow of high-quality secondary raw materials; sufficient feedstock

3 All "plastic waste" should be recycled and calculated toward the recycled content targets

Incorporating broader streams of plastic waste increases the efficiency and productivity of recycling programs and increases market demand for sustainable solutions, which will build a more robust recycling infrastructure quicker.

4 Chain-of-custody system to calculate recycled content

Mass balance is a chain-of-custody system that is essential to accelerate the transition to a circular economy. It enables innovative recycling of materials today with the manufacturing infrastructure we have today without the economic and environmental impact that would accompany the building of new assets.

5 Transparency

Eastman strives to ensure that we manufacture products that are safe for our employees to handle and for our customers to use. We support the European Commission's work on transparency and the idea of creating a digital product passport. However, to avoid any additional burden (like duplication of information requirements or different reporting mechanisms) on companies, interoperability with existing databases or information already present online will be crucial. It is also key that the confidentiality of certain data be protected and secured.



A shared vision to build a more sustainable future

For more information visit www.eastman.eco