Chemical recycling, a big step toward a smaller footprint

Tennessee Underground Storage Tanks
& Solid Waste Disposal Control
April 5, 2023

A materials innovation company

- Celebrating more than **100 years of vital innovations that enhance people's lives every day.**
- A Fortune 500 company with approximately **14,500 employees and approximately 10.5 billion USD** in revenue (2021)
- Dedicated to **enhancing the quality of life in a material way**
- Sustainability strategy commitment to **mitigating climate change, mainstreaming circularity** and **caring for people and society**

NEW PLASTICS ECONOMY

Global Commitment

U.S. PLASTICS PACT

ENERGY STAR AWARD 2019
PARTNER OF THE YEAR
Sustained Excellence

AMERICA'S MOST JUST COMPANIES
Forbes 2017

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

WSJ 100
MOST SUSTAINABLY MANAGED COMPANIES 2020

TOP 100
BARRON'S
Most Sustainable Companies 2021

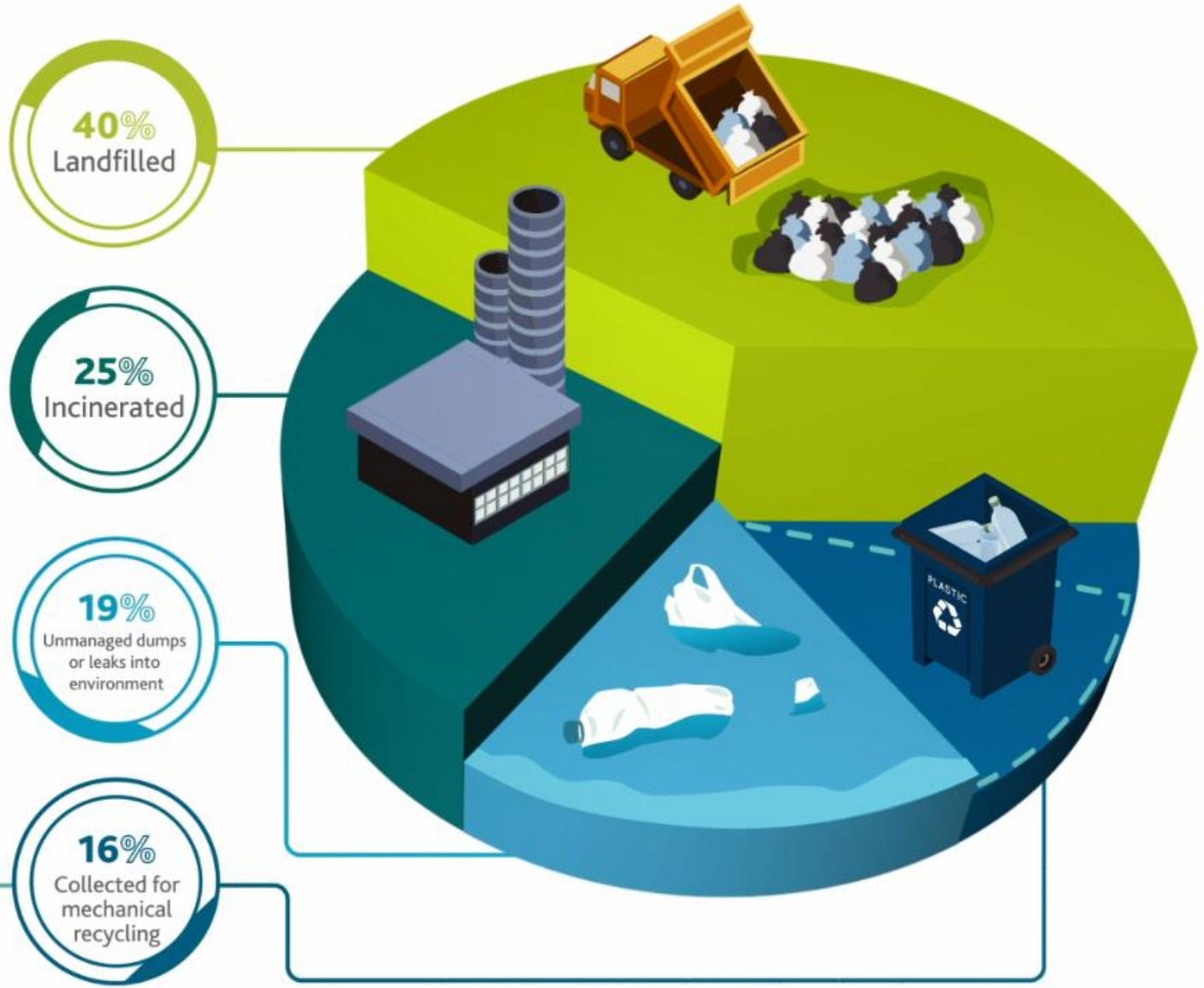
Three simultaneous global crises need solutions

EASTMAN

Opportunities **going to waste**

300 million metric tons
of plastics are produced globally

260 million metric tons
of plastics are disposed



Plastics are essential …
but the waste issue must be solved

HYDRATE

Plastics help to deliver hydration to those who need it

FEED

Advanced packaging technologies preserve fruits, vegetables, & meats

CARE

Plastics improve sterility, patient safety, and comfort in therapies

REDUCE **REUSE** **RECYCLE**

Chemical companies make materials/plastics used to make stuff

These materials/plastics are made mostly from **carbon** 6 C Carbon 12.011, **hydrogen** 1 H Hydrogen 1.008, **and oxygen** 8 O Oxygen 15.999

Coal

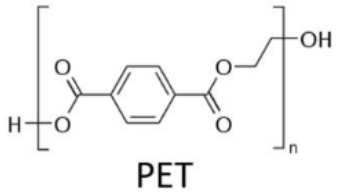
Oil

Natural Gas

Air (Oxygen)

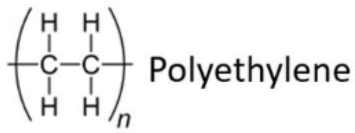
6 C Carbon 12.011 | 1 H Hydrogen 1.008 | 8 O Oxygen 15.999

Chemical Companies



PET

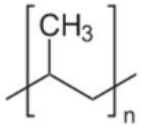
1 PETE



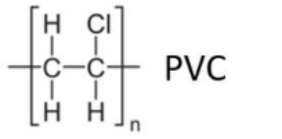
Polyethylene

2 HDPE 4 LDPE

Polypropylene



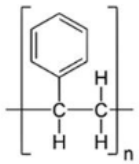
5 PP



PVC

3 V

Polystyrene



6 PS

Chemical companies make materials/plastics used to make stuff

These materials/plastics are made mostly from **carbon** 6 C Carbon 12.011, **hydrogen** 1 H Hydrogen 1.008, **and oxygen** 8 O Oxygen 15.999

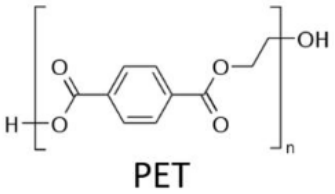
Plastic & Textile Waste
(Carbon, Hydrogen, and Oxygen)





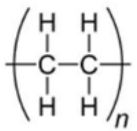

6 C Carbon 12.011 | 1 H Hydrogen 1.008 | 8 O Oxygen 15.999

Advanced or Chemical or Molecular Recycling



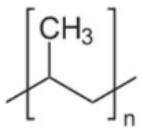
PET

1 PETE

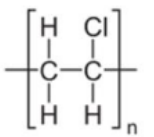


Polyethylene

2 HDPE 4 LDPE

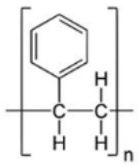
Polypropylene 

5 PP



PVC

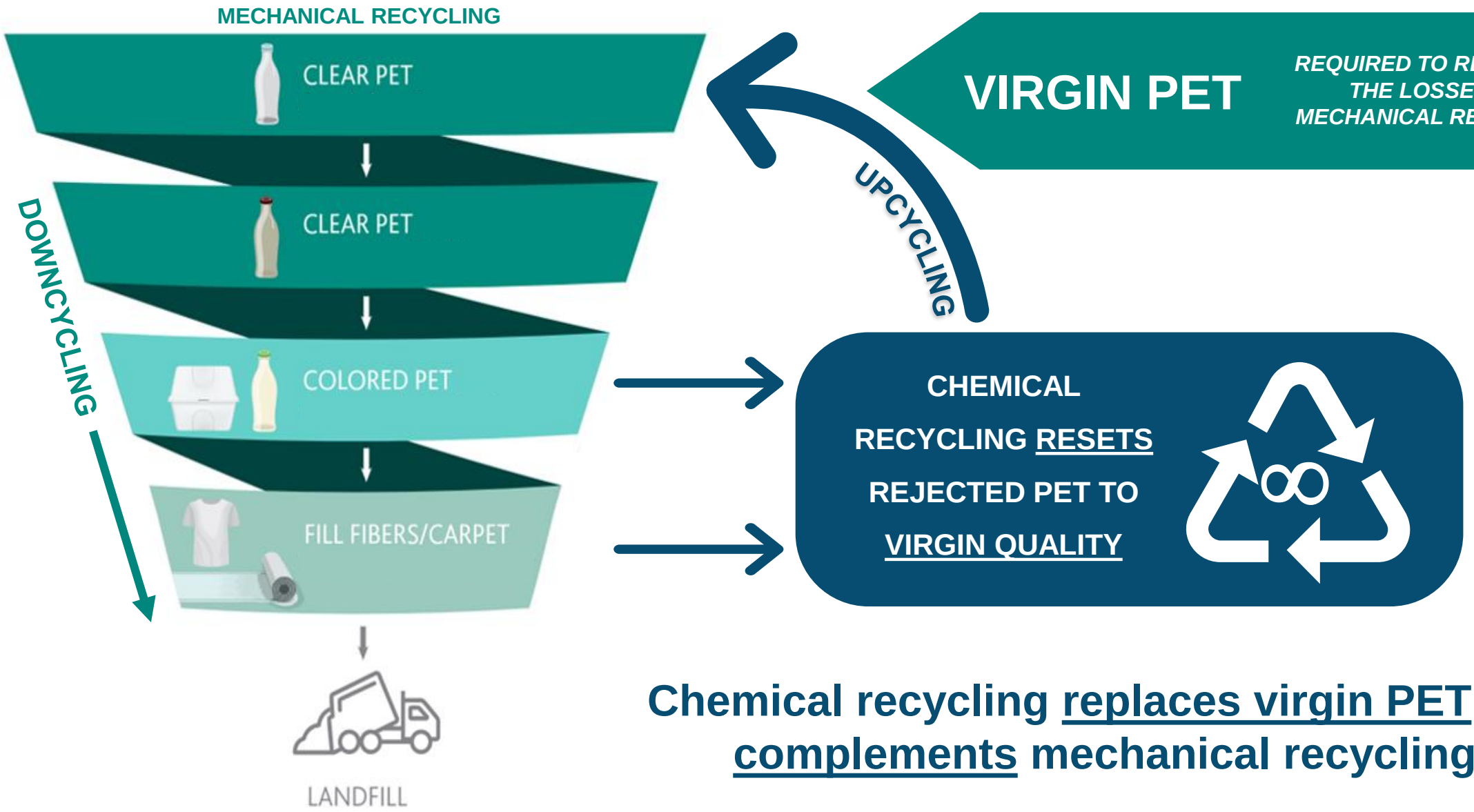
3 V

Polystyrene 

6 PS

MECHANICAL RECYLING + CHEMICAL RECYCLING

COMPLEMENTING EACH OTHER TO KEEP PLASTIC OUT OF LANDFILLS & REDUCE FOSSIL RESOURCES



Chemical recycling replaces virgin PET and complements mechanical recycling

Vision for a sustainable future…

Transforming our product portfolio to participate in the circular economy via **two loops**

Eastman's Advanced Circular Recycling Technologies

Carbon renewal technology

REFORMING

Operational today

20-50% less GHG emissions*

Polyester renewal technology

GLYCOLYSIS

Operational today

20-30% less GHG emissions*

METHANOLYSIS

Operational by **2023**

20-30% less GHG emissions*

NEW

$250M investment & >15% ROIC

**Based on production of intermediates versus fossil feedstocks*

Eastman.com/circular

EASTMAN

EASTMAN'S MOLECULAR RECYCLING TECHNOLOGIES

Carbon renewal technology (CRT)

1 PETE 2 HDPE 4 LDPE
5 PP 6 PS 7 OTHER

MIXED PLASTIC WASTE

REFORMING (NOW)

MOLECULES

CO, H_2 (syngas)

Cellulosic Plastics, Textile Fibers & Acetyl Chemicals
(20-100% recycle content)

20-50% LOWER GHG
(syngas)

Polyester renewal technology (PRT)

1 PETE

PET PLASTIC WASTE

GLYCOLYSIS (NOW)

METHANOLYSIS (2022)

MONOMERS

recycled DMT, recycled EG

Copolyesters, Specialty Plastics, & Plasticizers
(30-100% recycle content)

20-30% LOWER GHG
(rDMT, rEG)


EASTMAN
Eastman Advanced
Circular Recycling Technologies:
carbon renewal & polyester renewal
will process over
250 million
pounds of waste annually by 2025
and 500 million pounds by 2030
Eastman.com/circular
EASTMAN

Will 250,000,000 pounds of plastic waste fill Neyland Stadium, and if so, how many times?

Neyland Stadium
Home of the Tennessee Volunteers
Knoxville, TN

What does 250,000,000 pounds of waste plastic look like?

250,000,000 pounds of plastic waste would fill the famous Neyland Stadium in Knoxville, TN over 2x!

We will be processing this volume of plastic waste each year starting in 2023.

Beyond Tennessee

U.S. Investment

>$250 million

Molecular recycling plant under construction in Kingsport, TN

2023

France Investment

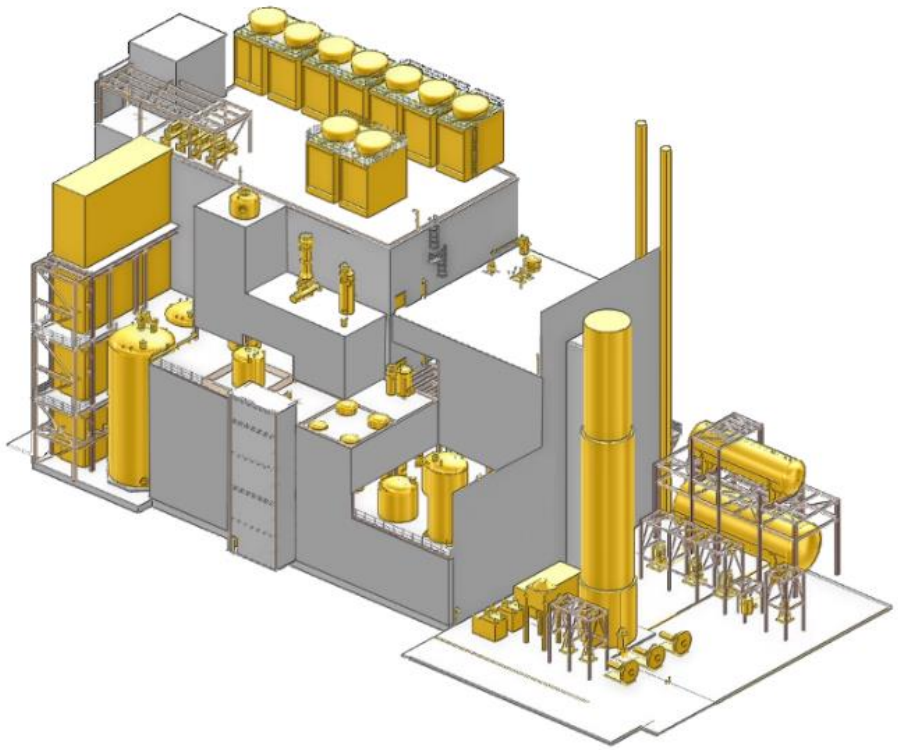
Up to $1 billion

Molecular recycling plant, polymer lines, mixed plastic waste processing unit, and innovation center announced for France.

2025

Progress in Tennessee

Turning Renderings to Reality



On track for 2023 start-up!