What is your story?

CHEMICAL RECYCLING EUROPE

Plastics are important for our modern world

Plastic waste is a major problem that needs to be solved

First heard the term "chemical recycling" on February 6, 2020

Chemical recycling is an important part of the solution

It is great to be here

Feb 1988 onwards, Texas, Europe... into the 21st century

April 2019, Northern Greece

Sept 27 2022, ZWE webinar

Chemical Recycling Industry and the European Circular Economy

CHEMICAL RECYCLING EUROPE

- Foresight to invest in innovation is beginning to pay off
- Europe leveraging its leading position in waste collection and sorting
- Turning circularity from a consultant's buzz word into an implemented reality
- Implementing circularity in plastics and valuable carbon based products
- Making the Green deal real, reaching the targets set
- European circular economy jobs
- Keep on leading in circularity Europe, it's important

Chemical Recycling Europe
(members June 2022)

ITERO

EUROPUR

PYROWAVE

gr€n
REDUCE, REUSE, RECYCLE

ReNew ELP

coperion

PLASTIC ENERGY

clariter

agilyx

ARCUS

Pryme

Renasci

Ravago

PROMECO

QUANTAFUEL

Recycling Technologies

erema group

ioniqa

Feedstock Complexity

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Plastics Industry

- Quality control from the petrochemicals industry
- Well established processes, technologies, specifications
- Delivered typically by pipeline to the polymer producer

Chemical Recycling Industry

- Quality control begins in the kitchen
- Hundreds of millions of European kitchens
- Although Europe is ahead of other regions, standardisation of waste collection is needed

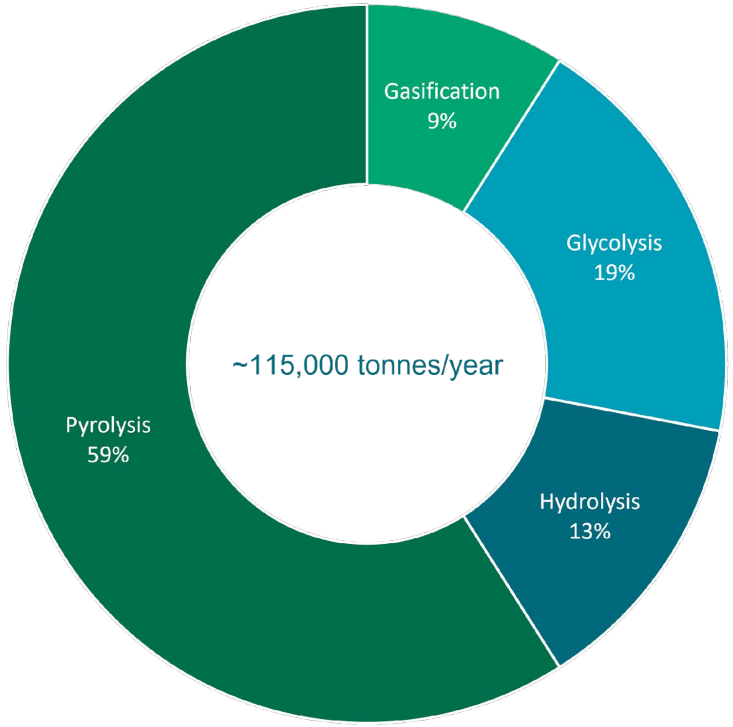
Feedstock Complexity and Waste Hierarchy

CHEMICAL RECYCLING EUROPE

Capacity is needed

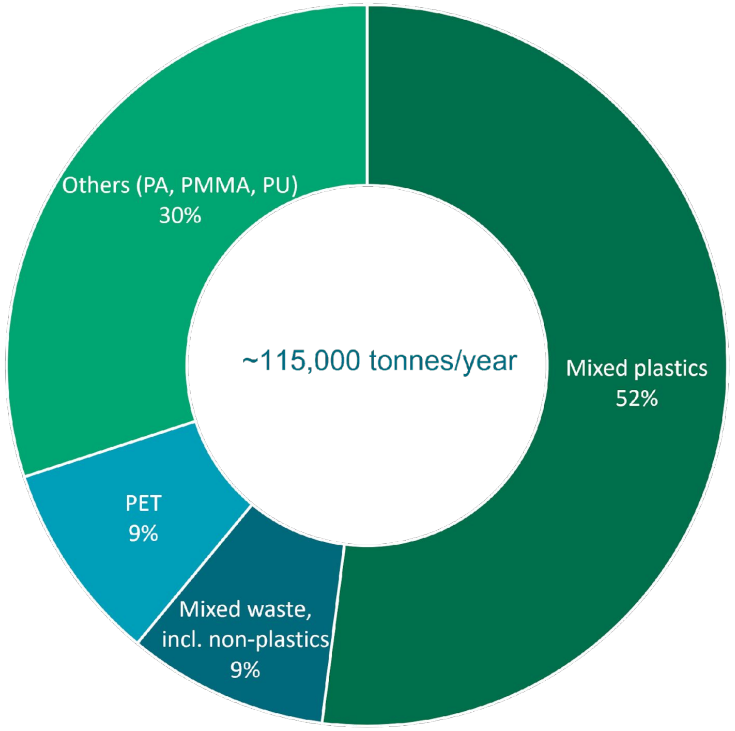
CHEMICAL RECYCLING EUROPE

Total installed (input) capacity, Europe, operating (as of May 2022)
By technology



Source: ICIS Recycling Supply Tracker – Chemical, 2022

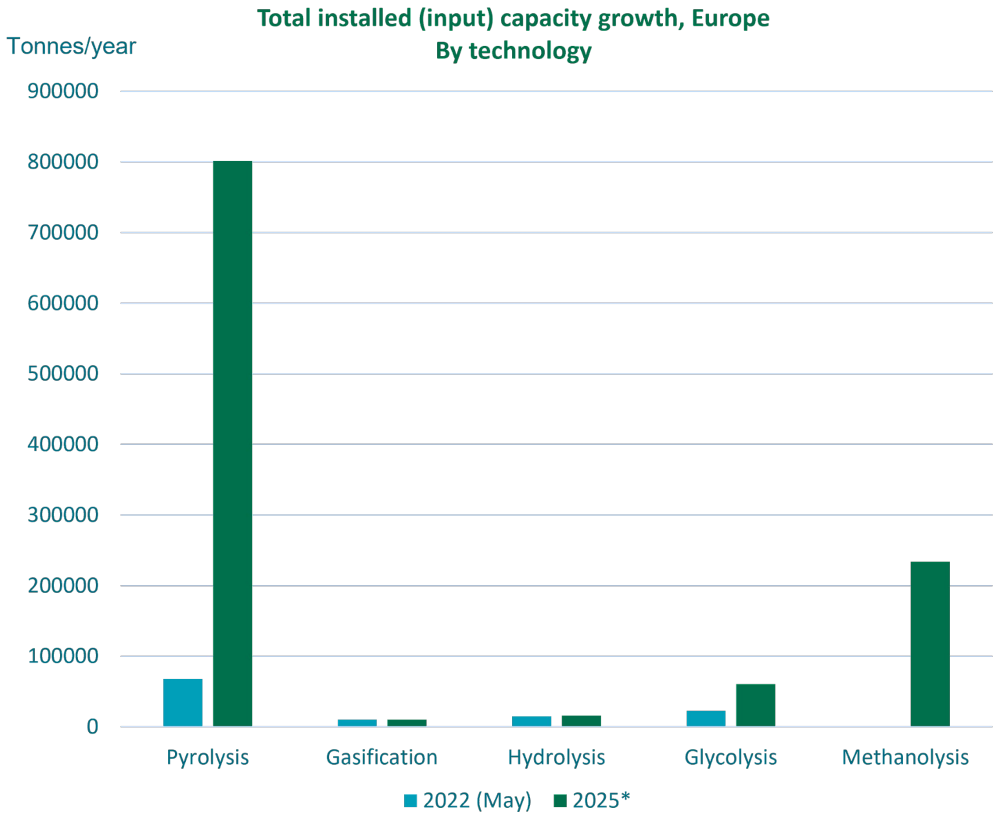
Total installed (input) capacity*, Europe, operating (as of May 2022)
By feedstock



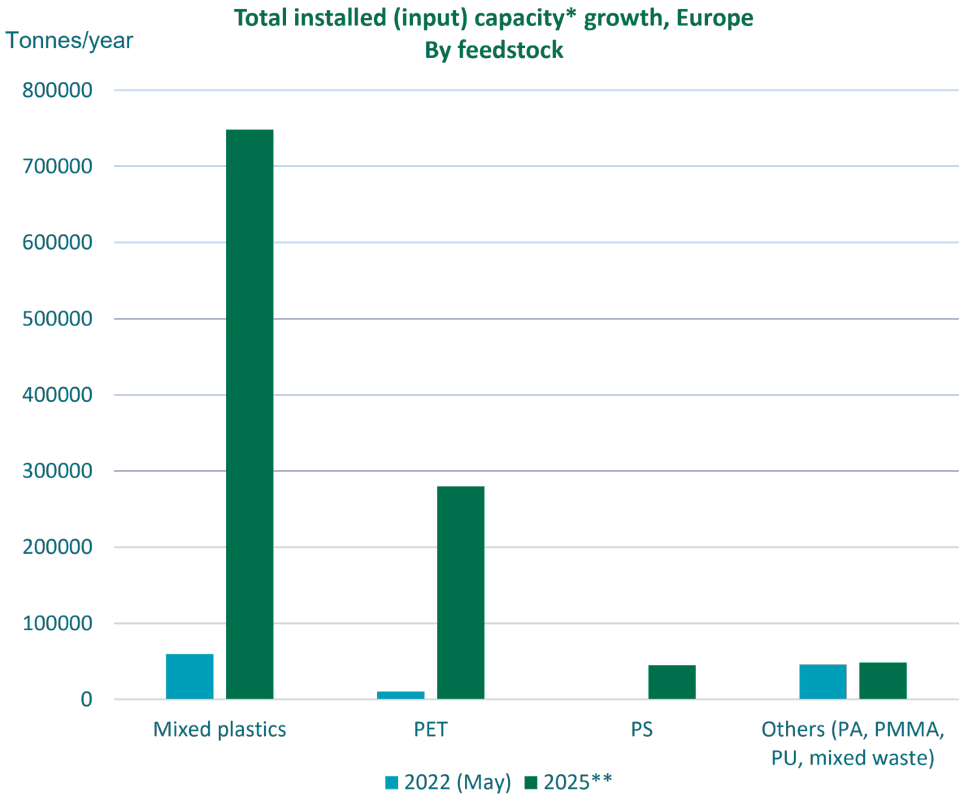
** Includes pyrolysis, gasification, glycolysis, hydrolysis and methanolysis projects*
Source: ICIS Recycling Supply Tracker – Chemical, 2022

Capacity is needed, capacity is coming

CHEMICAL RECYCLING EUROPE



** Based on announced projects, not including projects considered as pre-FID stage as of May 2022*
Source: ICIS Recycling Supply Tracker – Chemical, 2022



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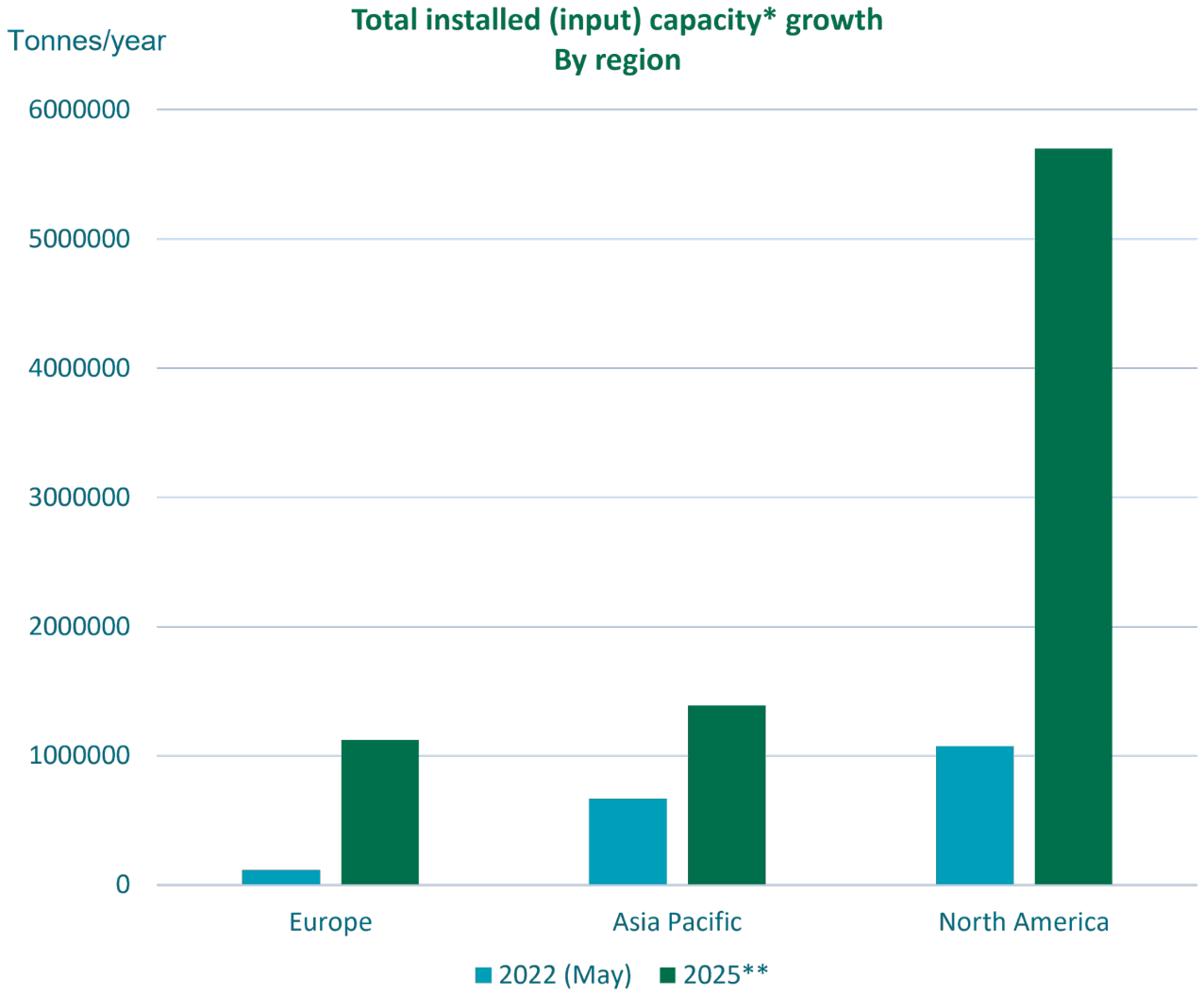
Capacity is needed, capacity is coming



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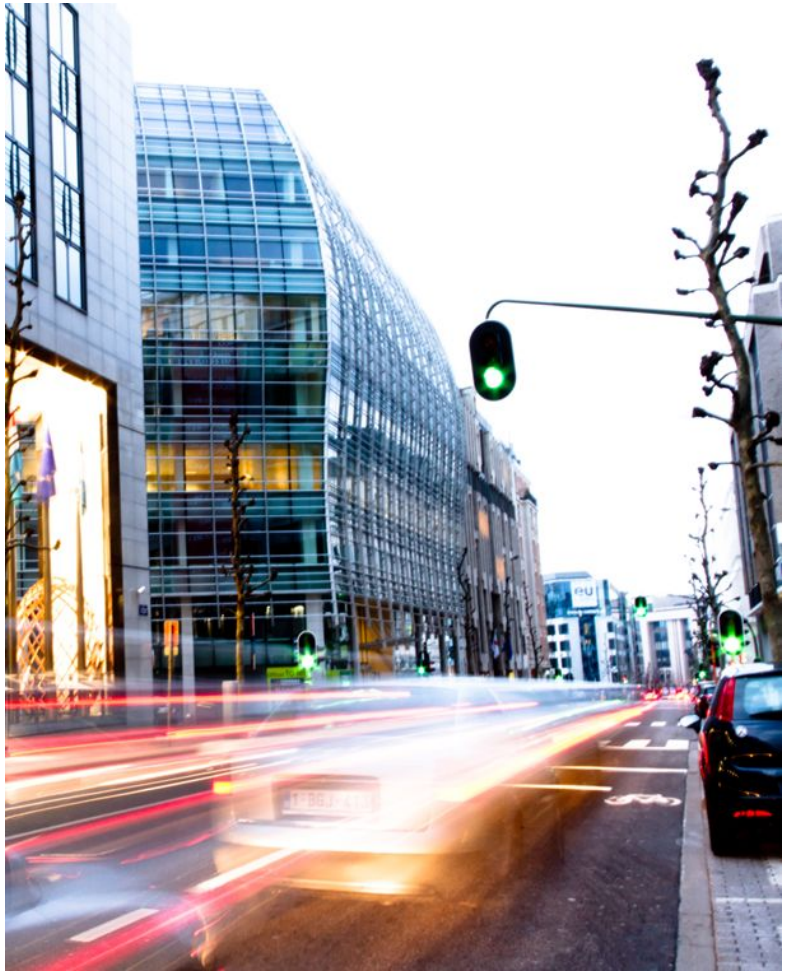
Observations, Challenges and Opportunities

CHEMICAL RECYCLING EUROPE

- Feedstock complexity: innovations in chemical recycling industry including link to waste management
- Legal definition of chemical recycling: positioning with respect to mechanical recycling
- Energy intensity: ongoing innovation in chemical recycling technologies, electrification of the petrochemicals value chain
- Substantiation of chemical recycling solutions versus end of life alternatives (incineration, landfill). Robust and correct application of LCA methodologies, etc.
- Establishing of mass balance accounting for chemical recycling at EU and member state levels. ISCC, innovations in tracebility, etc.
- Endure the valley of death
- Capacity is needed... it is good to be needed
- Capacity is coming, keep moving forward

Thank you. Come join us



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