

Scaling Waste Plastics Chemical Recycling from Lab to Commercial Reality

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Demand is increasing for more sustainable polymers



Regulatory pressure

- EU setting up product level sustainability requirements
- European Green Deal – roadmap for becoming climate-neutral by 2050



Brand owners' commitments

- Continues to build up through sustainability pledges of industry players such as Ikea, Henkel and Cofresco

Ikea

"People and Planet Positive to end our dependence on virgin fossil materials and fuels"

Henkel

"100% **recyclable**, reusable or compostable packaging by 2035"

Cofresco

"100% **renewable**, or recycled plastics in the long-term"



Public/consumer awareness

- Increases with high media attention and campaigns

Turning plastic waste into a valuable resource



Neste's Development Journey

Technology development &
Commercialisation

**Landscape
Evaluation
&
Proof of concept
work**
2020-21

**Neste's
concept
confirmed**

**Detailed
Development
&
Engineering studies**
2021-2022

**Pre-treatment
and upgrading
research**

**LCA results
&
Investment decision**
2022-2023

**GHG savings
communicated**

**Liquefaction Licensing
&
First asset start-up**
2024-2025

**Upgrading asset,
design capacity
150ktpa**

Collaboration
Projects

PlastPyro:
Liquefaction

Carbon neutrality enabled by handprint:
Circular economy sustainability

Circular plastic pipe systems:
Construction waste feedstock

MASCOT:
Materials

UrbanFactory:
Liquefaction &
purification

Summary and current activities

Feedstock

- Broad waste plastic feedstock pool studied
- Substantial, complementary to Mechanical Recycling, volume available for Chemical Recycling

Technology

- Own upgrading and pre-treatment technologies developed
- Actively licensing liquefaction technology in Europe

Investment Project

- Pioneering the future of sustainable materials, H2/2025 marks the start up of the world's most significant upgrading facility with Neste's proprietary technology

Markets

- Growing voluntary market for chemically recycled plastics
- Mandated EU market for packaging created from 2030. Mandates for other application areas emerging

Thank you