



ReOil®

Chemisches Recycling als Ergänzung  
zum mechanischen Recycling am Beispiel Reoil

Wege des Kunststoffkreislaufes, 25.4.2022

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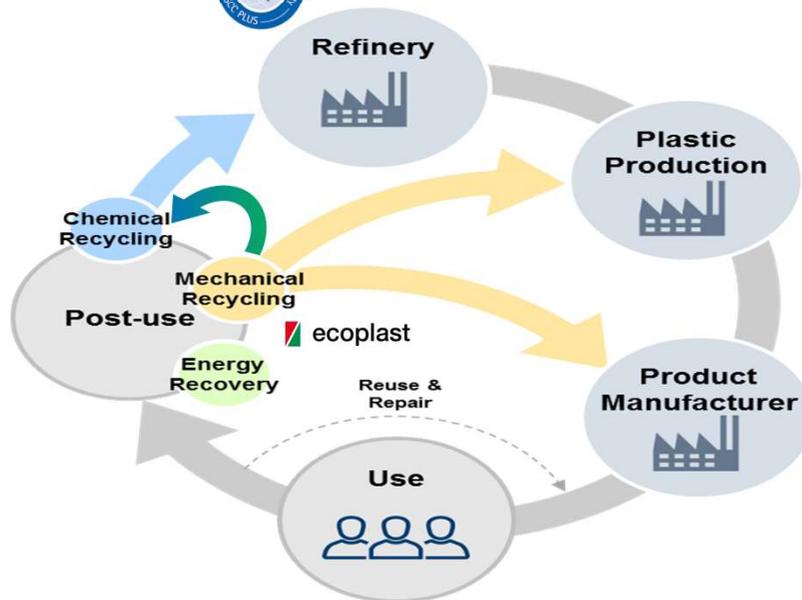
OMV Chemicals & Materials

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# Circular Economy – the Chemical Recycling closes the loop of post consumer plastic recycling in an energy efficient way

## ReOil® briefly

- ▶ Is an in-house developed and patented process
- ▶ Operate a medium pressure and moderate temperatures
- ▶ Pilot plant commissioned 2018
- ▶ Fully integrated in refinery, in 24/7 operation
- ▶ 15.500 cracking hours achieved (since 1.1.2019)
- ▶ ISCC+ certified



## ReOil® feedstock

- ▶ PE - Polyethylene  
e.g., toys, plastic bottles, films
- ▶ PP - Polypropylene  
e.g., food packaging, automotive parts
- ▶ PS – Polystyrene  
e.g., plastic cups, packaging, insulation



## ReOil® feed sources

- ▶ Commercial & Industrial  
e.g., AUA, tube producer, car manufactures
- ▶ Mechanical Recycling  
e.g., Ecoplast
- ▶ Packaging/substitute fuel producer  
e.g., Saubermacher, Brandtner
- ▶ Municipal waste  
e.g., Alba

# Why chemical recycling in a refinery/petrochemical?

## ► Chemical recycling complements the plastics recycling options

- ▶ Technologies like Re Oil® are capable of processing plastic waste not suitable for mechanical recycling and to convert their rejects via the refinery and Petrochemical to virgin-quality polymers
- ▶ It helps to fulfill the targets for the plastic packaging recycling quota if recognized as such.
- ▶ Mass-balancing as an output-oriented approach in existing refinery infrastructure.

## ► Chemical recycling is energy efficient

- ▶ It processes plastic waste streams – which are incinerated today - into synthetic crude oil – which replace fossil crude oil in the production of virgin plastic
- ▶ The „light“ quality of the synthetic crude oil results in substantially lower overall treatment requirements and therefore less energy consumption and less CO<sub>2</sub> emissions if integrated with a refinery/petrochemical industry.

## ► Chemical recycling is safe in the hands of the refinery/petrochemicals industry (REACH compliant)

- ▶ It can remove organic/inorganic additives, which otherwise compromise the quality of the recycled material.
- ▶ The petrochemicals industry has the proven capability to operate chemical processes and deal with hazardous materials, in line with the highest health and safety standards.

complementary

efficiency

safety



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