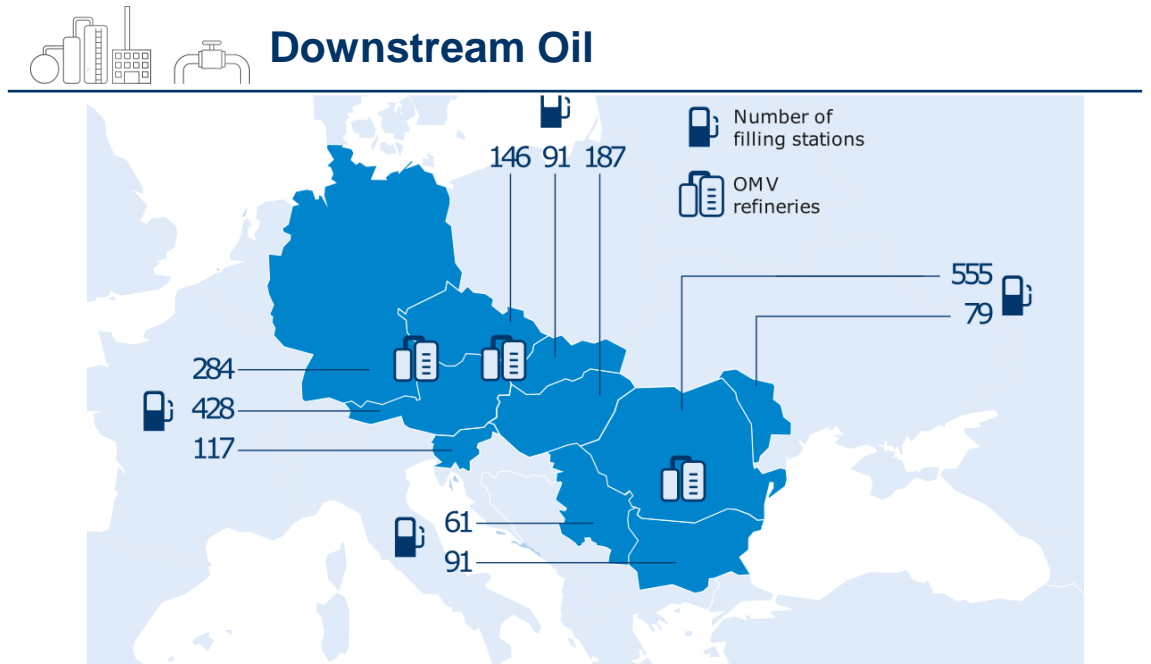
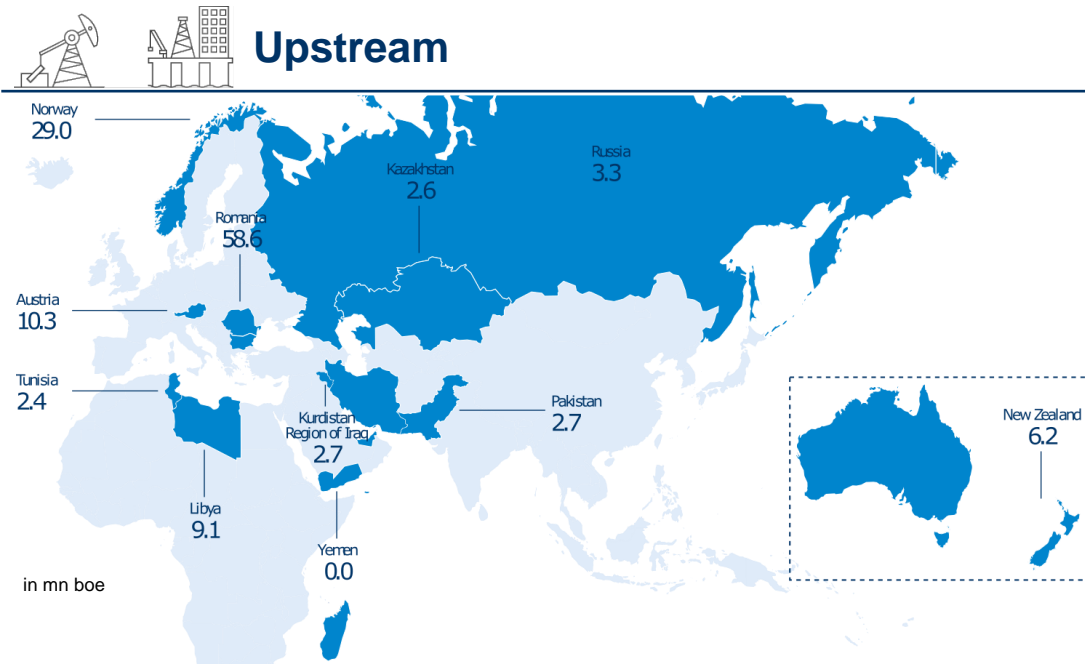


OMV's concrete actions to reduce its CO₂ footprint: The ReOil Process

Brussels, 5 June 2018

OMV Downstream

OMV is an integrated oil & gas company including petrochemicals with a refining and retail business located in Europe



- ▶ In 2017, OMV produced an average of 348 kboe/d with about 90% from EU and OECD countries¹.
- ▶ Proven reserves: 1.15 bn boe¹.
- ▶ Reserve replacement rate: 116 %¹.

- ▶ Three sites with 17.8 mn t total refinery capacity.
- ▶ 12 % petrochemicals in output.
- ▶ More than 2.000 filling stations in 10 countries.
- ▶ 36% share in Borealis, a global player in poly-olefins and base chemicals.

¹) Reference: [OMV Strategy 2025 – 13 March 2018](#)

We already started the journey on reducing our CO₂ footprint

Hydrogen filling stations



- ▶ **10 filling stations** across the TEN-T network in Austria and Germany.

e-fuels



- ▶ First **wind-2-hydrogen** project finalised in 2017.

Co-processing of biomass



- ▶ **2015/16 among the first RED/FQD accepted certification of process.**
- ▶ More than 5 kt of vegetable oil processed in test runs, so far.

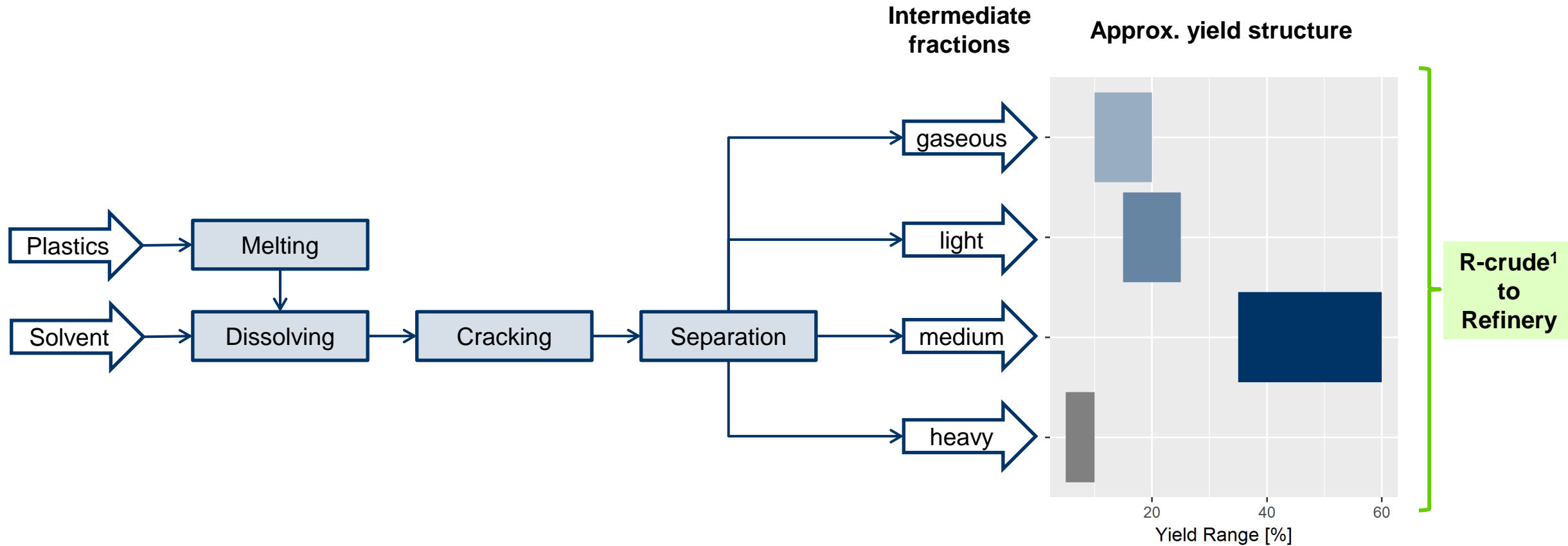
Waste plastics to fuel and chemical feedstock



PE
PP
PS

- ▶ Investigations started in 2011.
- ▶ OMV process development.
- ▶ **Pilot planned commissioned** in Q1/2018.

Our ReOil-process converts used plastics under moderate pressure and under normal refinery operating temperatures into so-called R-crude



1) R-crude = recycled crude

Merging circular economy with CO₂ efficiency efforts in the RED II via “recycled carbon fuels” would be a first and simple sector coupling



Background

- ▶ 60 Mt/a plastics production¹.
- ▶ 25 Mt/a end as waste¹.
 - ▶ 70 % is incinerated or landfilled¹.
 - ▶ **only 10 % of recycled plastics are poly-olefins** (e.g. foils, cups)².



Post consumer waste plastics

Innovation

- ▶ New OMV patented process.
 - ▶ Basically applicable to all refineries.
- ▶ Pilot plant commissioned Q1/2018.
- ▶ **Virgin quality fuels as well as chemical & plastic products.**



“ReOil” pilot plant

Next steps

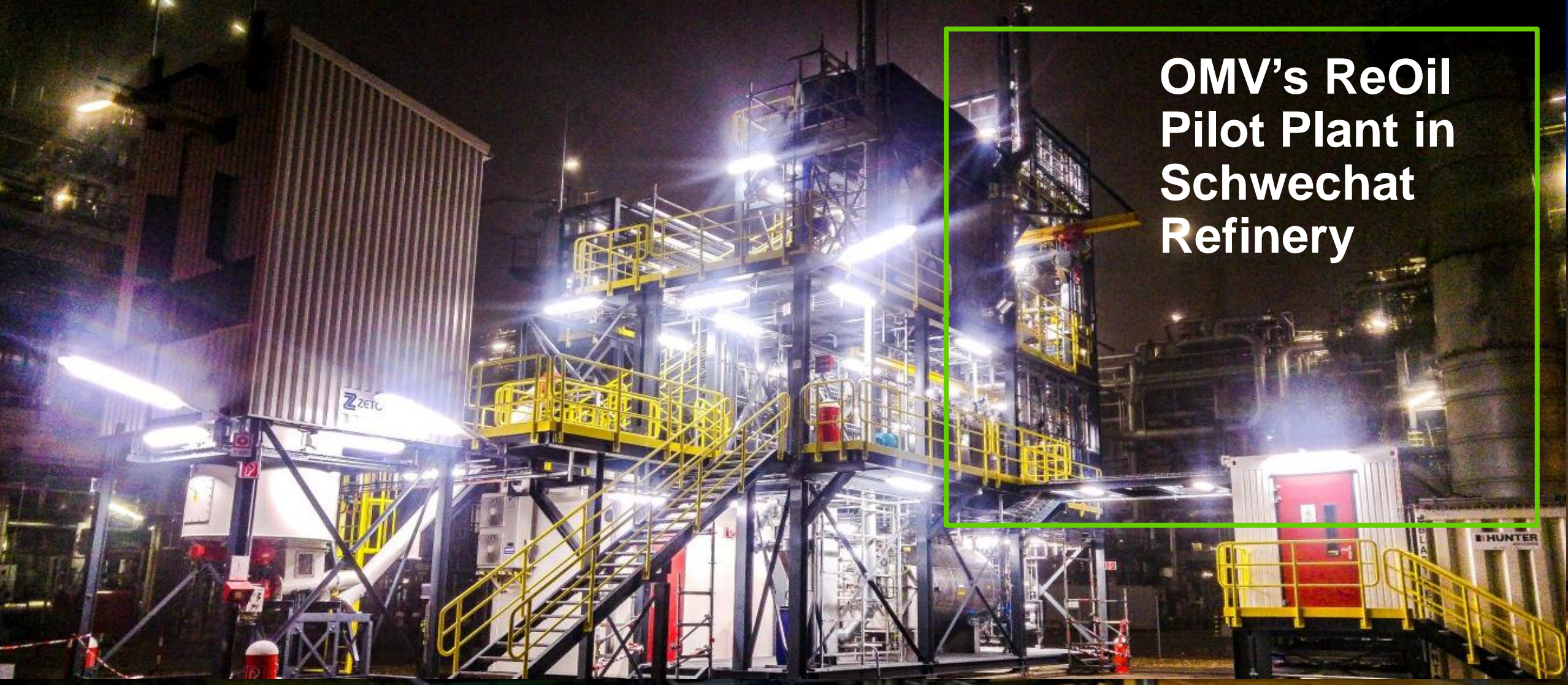
- ▶ Pilot plant operation.
- ▶ Design of demonstration plant.
- ▶ **Define role out strategy – dependent on legislative framework.**



Refinery intermediates

1) European Commission DG Environment „European strategy for plastics“, http://ec.europa.eu/environment/waste/plastic_waste.htm, assessed on 3 April 2018 2

2) Kranzinger et al. Österreichische Wasser- Und Abfallwirtschaft 69, no. 11 (1 December 2017): 460–69. doi:10.1007/s00506-017-0423-y.



OMV's ReOil Pilot Plant in Schwechat Refinery

OMV Downstream