

Enabling Feedstock Change@BASF

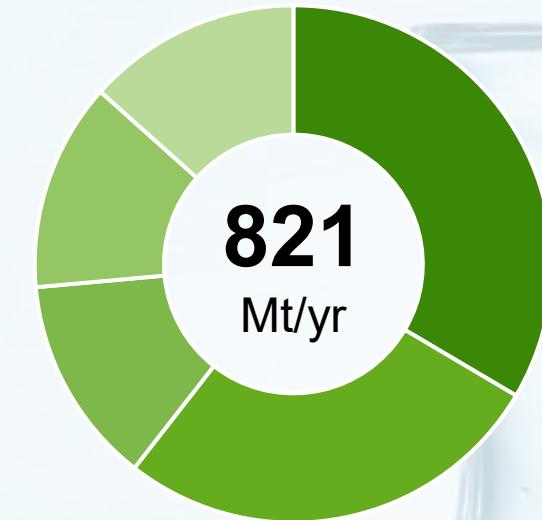
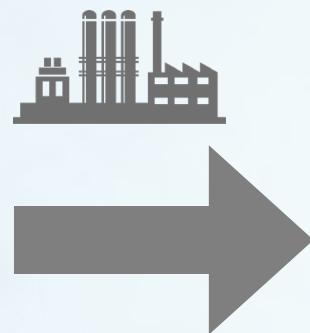
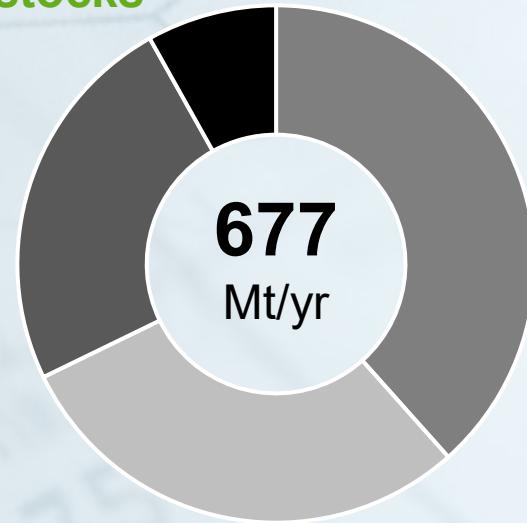
Dr. Christoph Jäkel

Vice President, Corporate Sustainability
December 1st, 2022



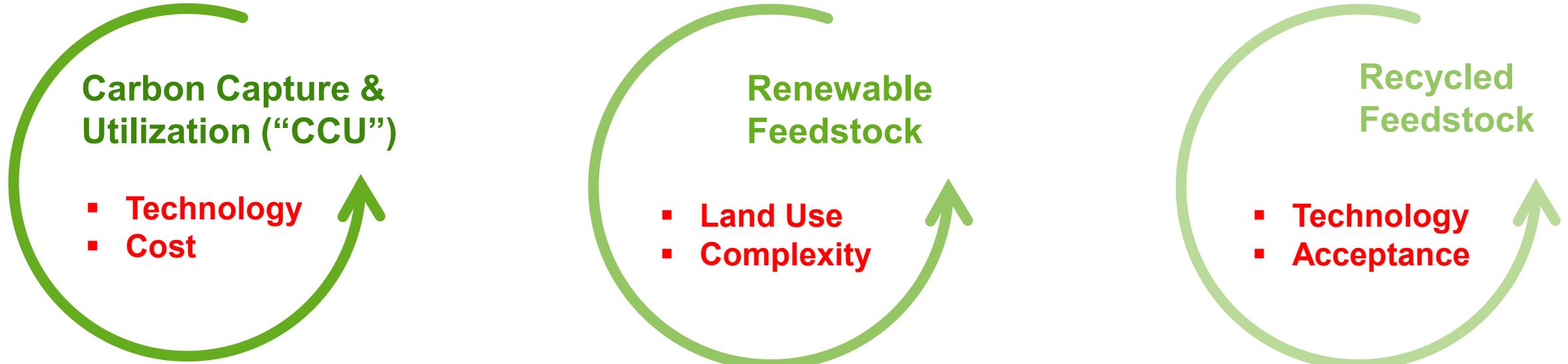
The Chemical Industry Needs a Lot of Fossil Carbon

38% Liquid Oil Products
29% Natural Gas & NGLs
24% Refinery Feedstocks
8% Coal



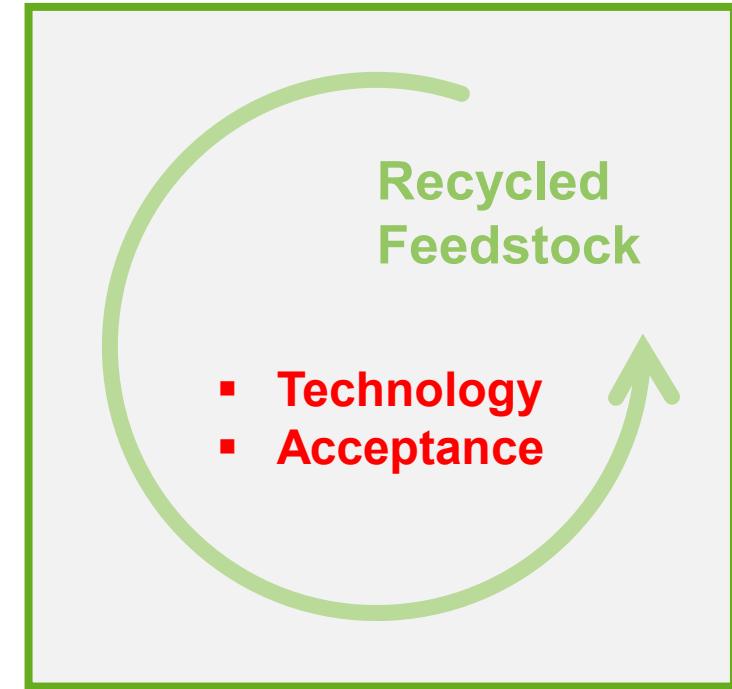
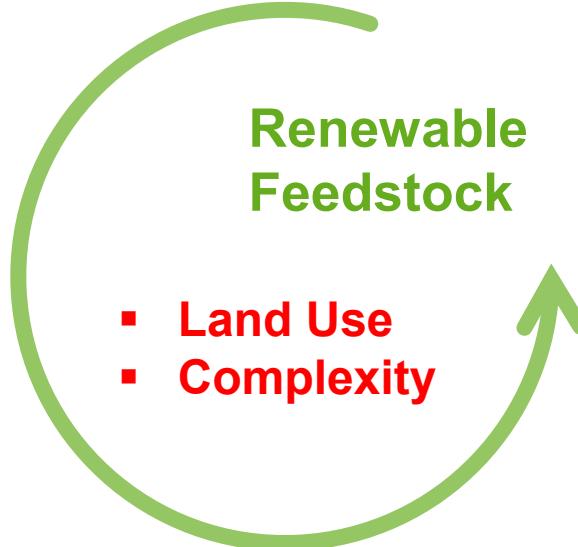
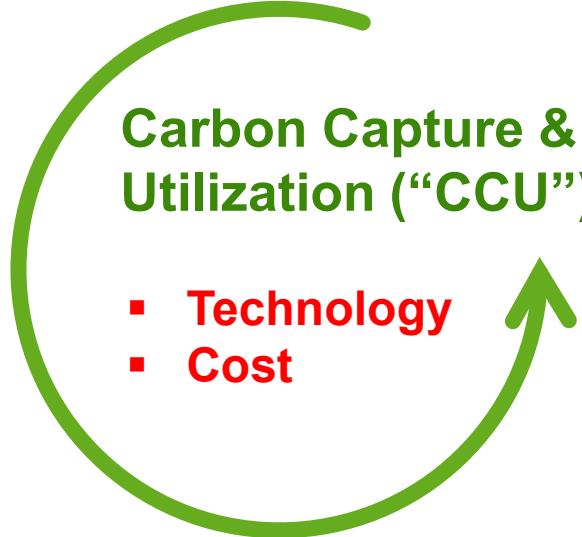
~700 million tons of fossil feedstock are every year converted into a broad array of chemical products for everyday use.

No Silver Bullet to Enable Feedstock Change in the Chemical Industry



If we want to move quickly, we need to make use of all alternative feedstocks

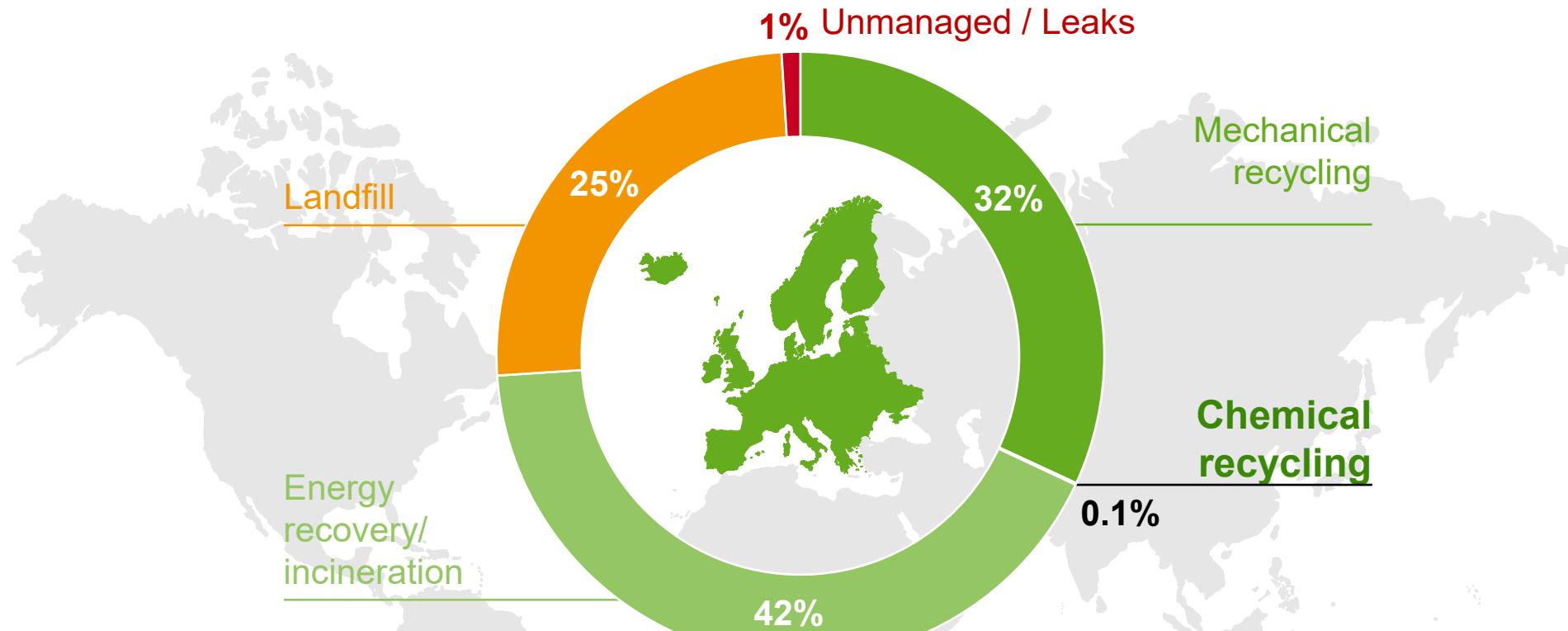
No Silver Bullet to Enable Feedstock Change in the Chemical Industry



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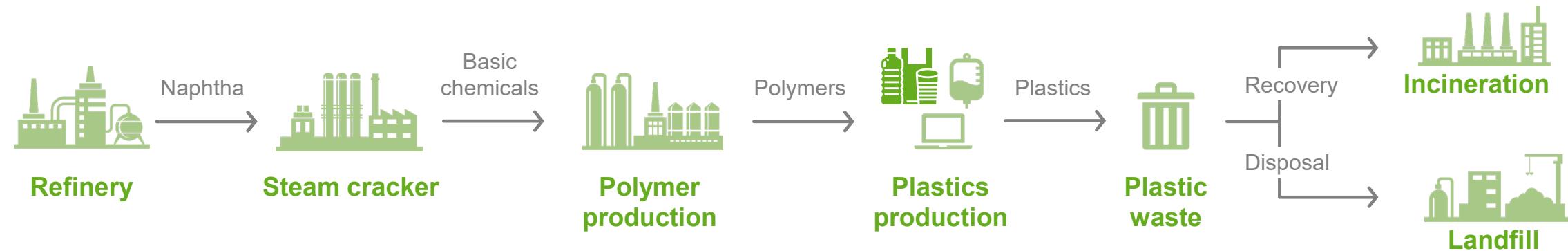
Today's recycling landscape for plastic waste

End-of-life treatment of 29 million tons of plastic waste in EU28+2 in 2018

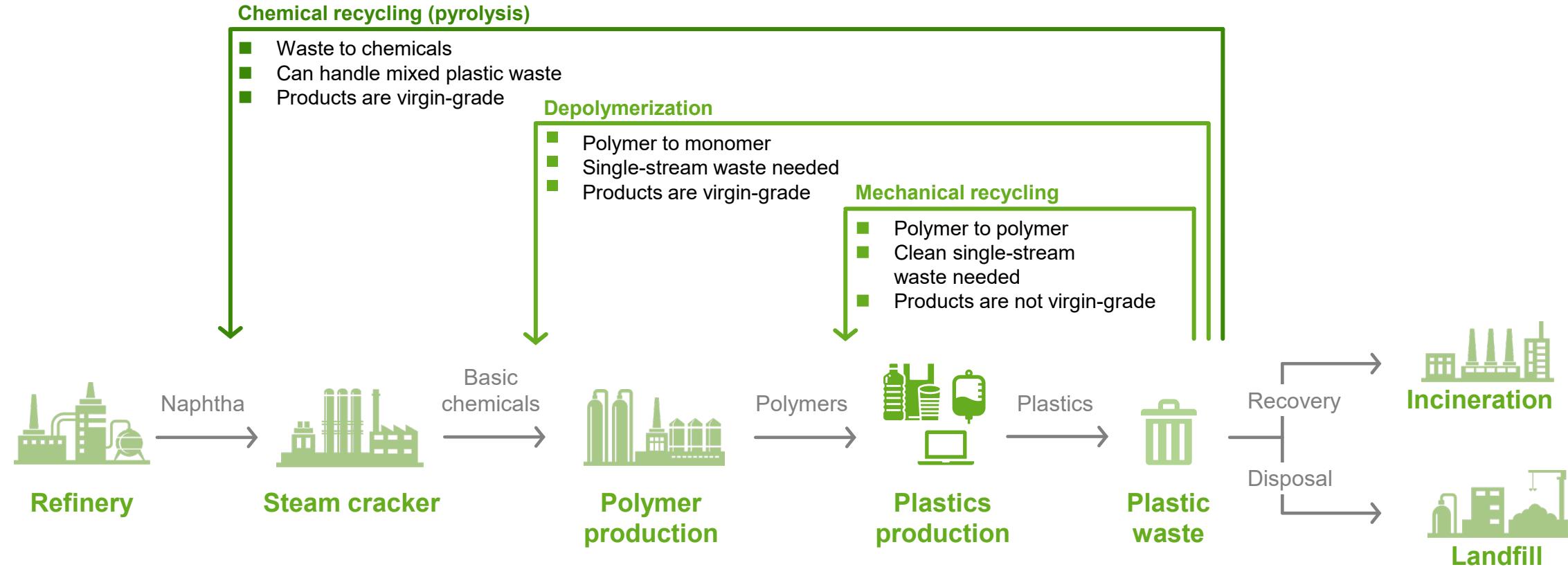


Only one third of all plastic waste is kept in the materials cycle in EU28+2.

Two Thirds of the Plastics Value Chain Still Work Linear



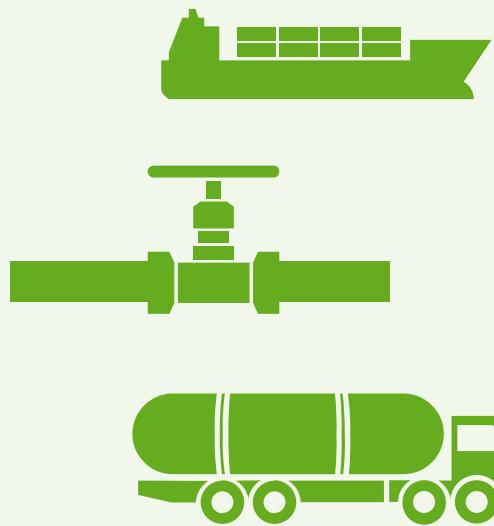
Chemical Recycling Complements Mechanical Recycling and can Contribute Significantly to Increasing Recycling Rates



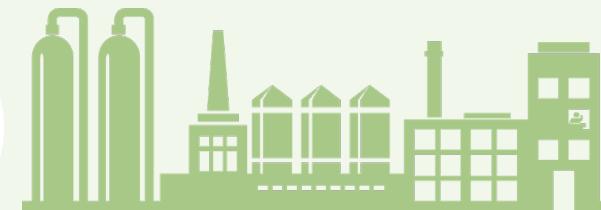
Chemical recycling is one of many measures needed to reduce fossil resource consumption and to achieve a world free of plastic waste

Chemical Recycling Broadens our Feedstock Base and Leverages our Existing Asset Structure

Flexible feedstocks



Existing Assets



Mass Balance concept



BASF can allocate new feedstocks to the most attractive applications combining its unique Verbund and Mass Balance concepts

Regulatory Support for Chemical Recycling Needed

- Chemical recycling **needs to count towards recycling targets**
- **Incentives** for recycled content should apply to all kinds of recycling
- **Acceptance of mass balance approach:** mass-balanced recycled content should be supported to the same extent as single-sourced recycled content

Technology-open definition of recycling is key to address the plastic waste problem



Aside from Chemical Recycling, we Already Have Many Products and Solutions Which Help Close or Extend the Plastics Materials Loop



Infinergy® – footwear material extending lifetime of shoes



Ecovio® – compostable polymer for agricultural mulch film



Joncrys® MB – Resins from renewable raw materials



Tinuvin® NOR® 356 – light stabilizer for increased longevity



trinamiX® – mobile spectroscopy solution to identify plastics



Petra® – polyester based on 100% recycled PET

Summary

- ▶ No “silver bullet”: access to **flexible raw material feedstocks** is needed to **enable the transformation**
- ▶ **Chemical recycling** is one important technology and is **complementary to mechanical recycling**
- ▶ Challenges regarding the **acceptance and technology** need to be tackled
- ▶ **Mass Balance** enables **accelerated transformation** by **utilizing the existing asset structure** of the Chemical Industry





BASF

We create chemistry