



Sustainability in BASF

29 August 2024

□ - BASF

We create chemistry



Our purpose:

We create
chemistry for a
sustainable future

We create chemistry for a sustainable future – BASF's emission targets

2030

25%

Scope 1 and **Scope 2**

CO₂ emission reduction
(compared with 2018)

15%

specific **Scope 3.1**

CO₂ emission reduction
(compared with 2022)¹

2050

net zero

Scope 1, Scope 2

and **Scope 3.1**

CO₂ emissions

¹ Corresponds to a reduction from 1.57 to 1.34 kilograms of CO₂e per kilogram of raw material bought; calculated on the basis of relevant Scope 3.1 emissions of 48 million metric tons

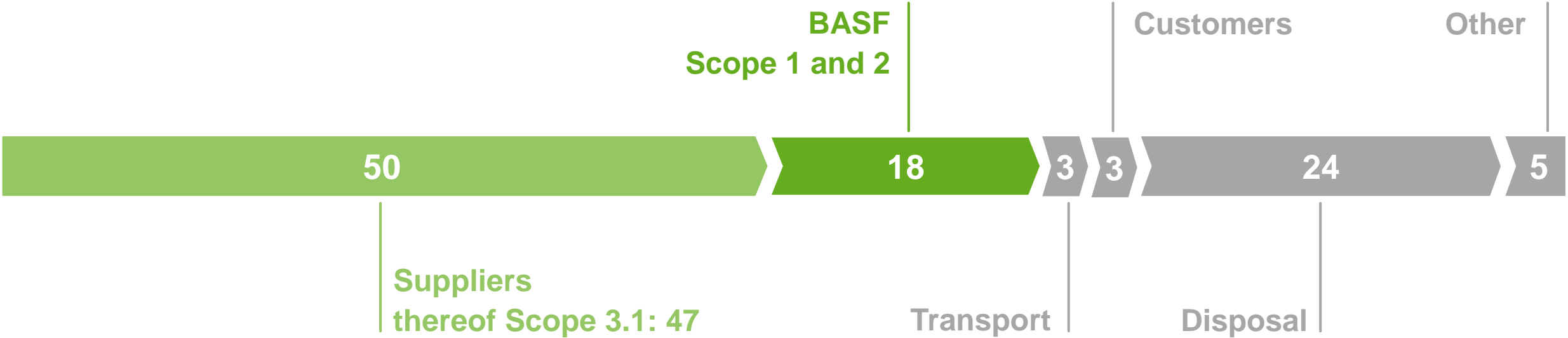
BASF reports emissions along the entire value chain

Greenhouse gas emissions along the BASF value chain in 2023¹

Million metric tons of CO₂ equivalents

Scope 3 upstream

Scope 3 downstream

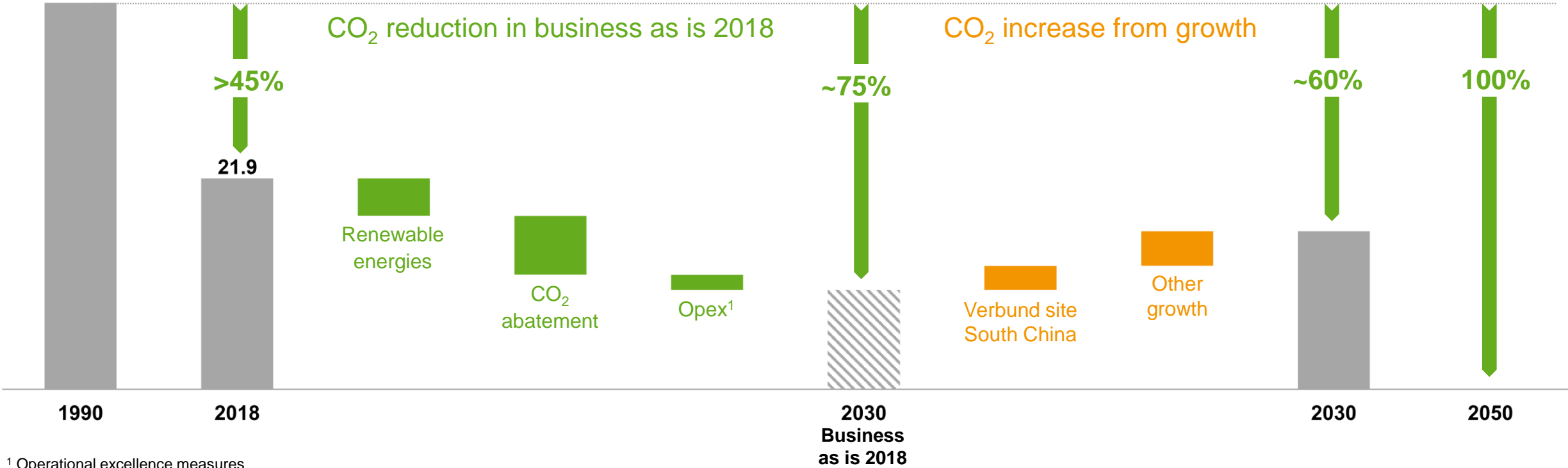


¹ See BASF Report 2023, page 108

Our path to reduce BASF emissions from 1990 to 2050

BASF greenhouse gas emissions (Scope 1 and Scope 2) 1990–2050

Million metric tons



¹ Operational excellence measures

BASF's way to Net Zero: Speed up and focus as one company

Renewable Energy

We are increasingly meeting our electricity needs from renewable sources

Circularity

We move from linear value creation to closed material cycles



CO₂ Abatement

We are taking targeted measures to avoid CO₂ emissions

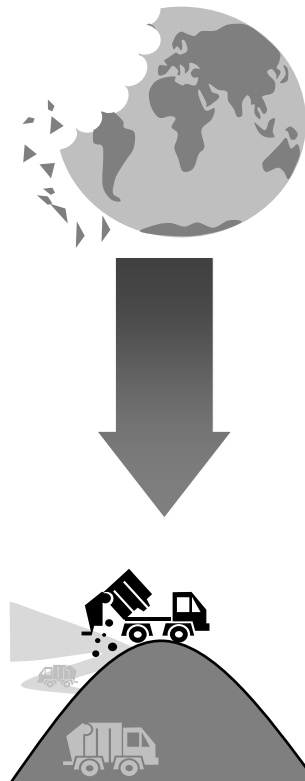
Circularity



A circular economy aims to decouple growth from resource consumption and is regenerative by design

- **Rethink design** and use of resources and **keep** them in **use as long as possible**
- **Recover and recycle** products and materials
- **Avoid waste and pollution** and **protect natural systems**

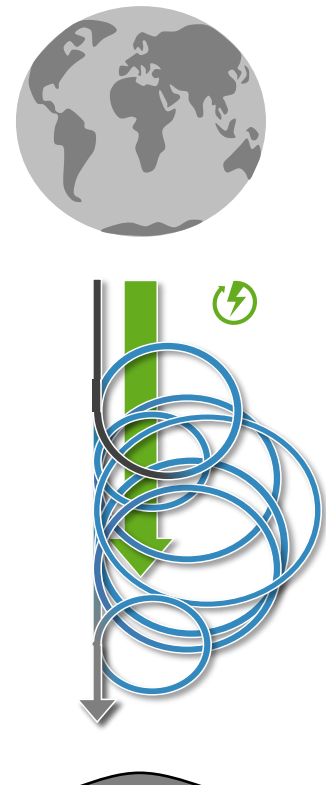
Linear economy



Recycling economy



Circular economy



By using alternative raw materials, we can reduce fossil feedstock demand and contribute to a circular economy

Recycled feedstock

Renewable feedstock

Dedicated mechanical recycling



e.g., mechanically recycled feedstock from expanded polystyrene (EPS) waste

Chemical recycling (e.g. ChemCycling®)



e.g., pyrolysis oil derived from plastic waste or end-of-life tires

Biomass balance



e.g., biomethane or bio-naphtha derived from biomass (waste)

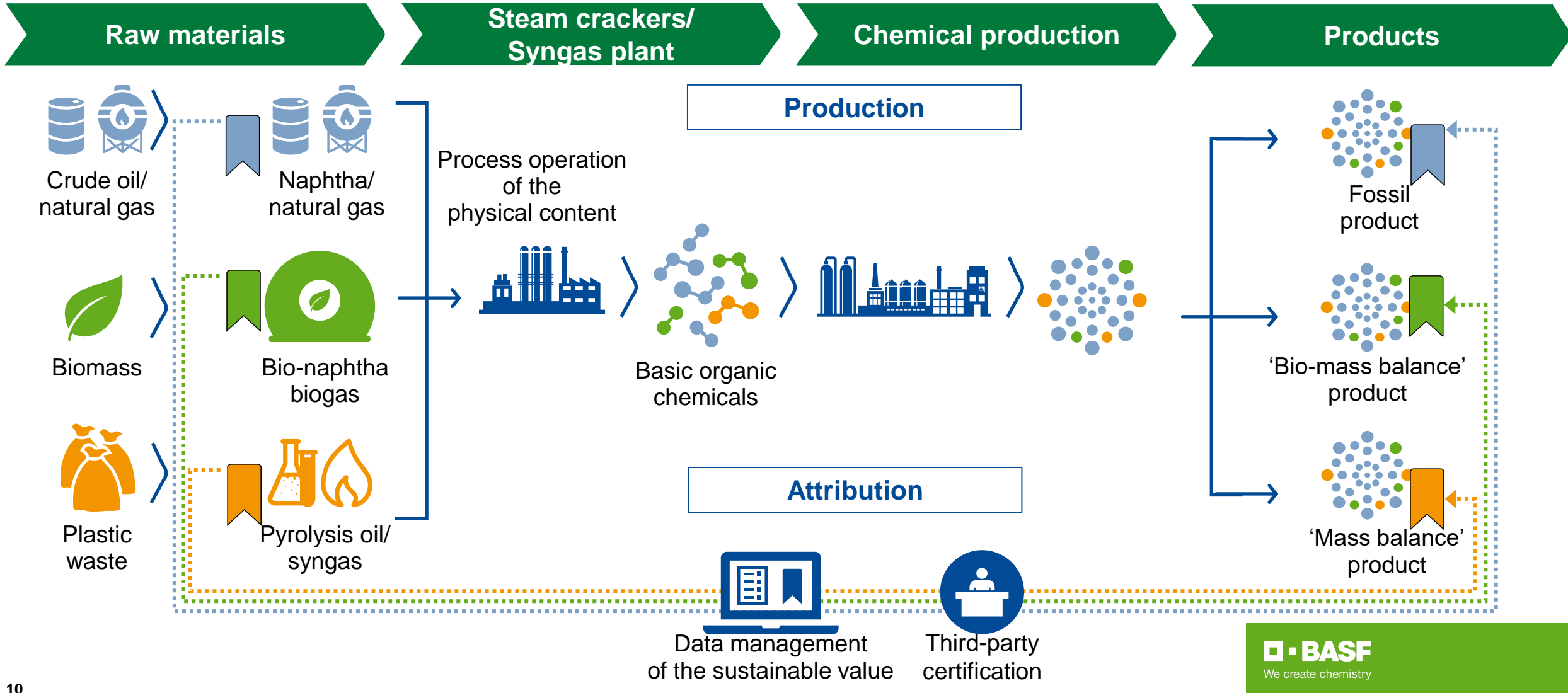
Dedicated bio-based production



Sustainably sourced bio-based resources, e.g., RSPO certified palm oil

Mass balance approach

The alternative feedstock is attributed to certified products through the mass balance approach (credit method, according to ISO 22095)



Biomass Balance Portfolio from renewable resources

- ~ 1,200 biomass balanced (BMB) products have been certified to ensure correct attribution along the value chain
- Certification standards in use are **REDcert²** and **ISCC+**



- Offers **identical product performance**



Value Adding with Innovation: Low and Zero-PCF products

Originally

Infinergy® 230 (AP) midsole



Today

Infinergy® 230 RC midsole



Future



¹ CO₂e emissions (cradle-to-gate), calculated according to a method from McKinsey; only Infinergy® part of the sole



Breakthrough

Zara's capsule jacket made from loopamid® is entirely based on textile waste

Closing the loop with loopamid®

loopamid® is the first Polyamide 6 entirely made from textile waste.

- Tackles one of the most pressing challenges faced by fashion industry: **textile waste.**



- **Collaboration with major players along the value chain** ensures specific requirements of textile production are met.

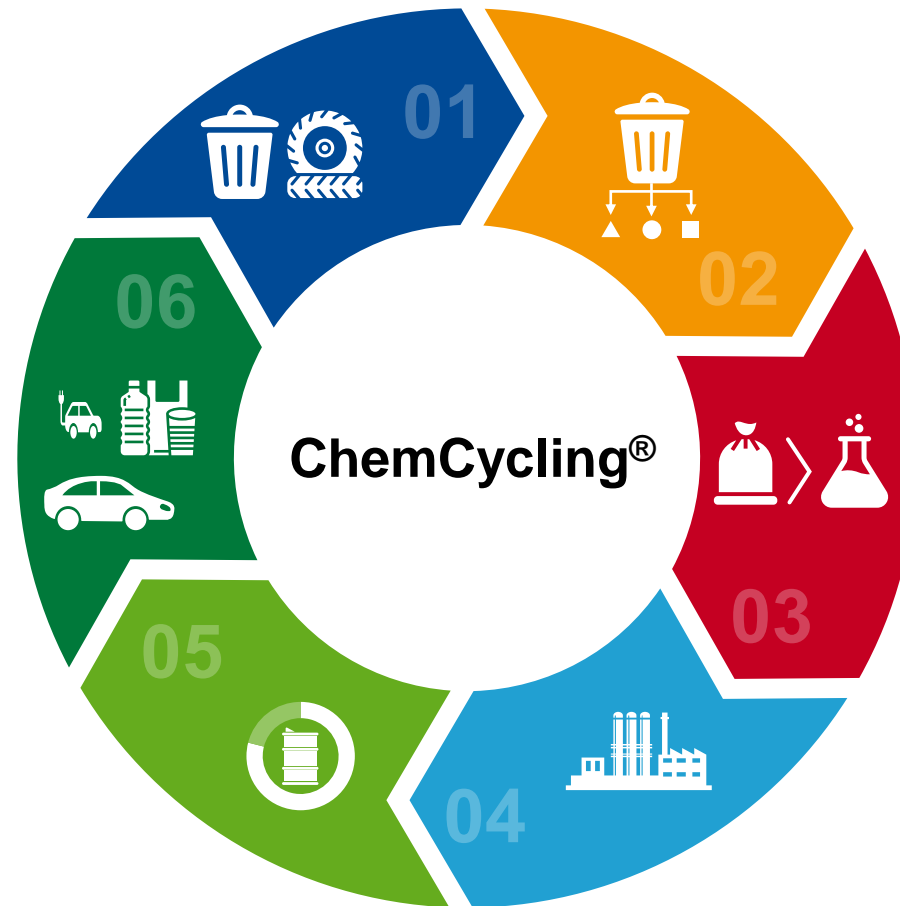
ChemCycling®

Breaking new ground in plastics waste recycling

Consumers use and dispose of plastic products (e.g., packaging, tires)

Our customers use these chemicals to make their own products

BASF can attribute the recycled feedstock to all chemicals produced in the Verbund via a certified mass balance approach



Waste companies collect and sort the waste and supply it to BASF's technology partners

Our partners convert the plastic waste into pyrolysis oil through a thermochemical process

Pyrolysis oil is purified to be used as feedstock at the beginning of BASF's Verbund production



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