

Recommendations for a Circular Economy

BASF
We create chemistry

A more Circular Economy will contribute to save the limited resources of our planet, reduce waste and greenhouse gas (GHG) emissions. To enable the transformation, technical innovation needs a supportive regulatory framework.

Regulatory Framework

Alternative feedstocks

Encourage sustainably sourced renewables and waste-based feedstock

Encourage innovation with technology-neutral incentives



Waste management
Harmonize and simplify

Sustainable Products

Rate sustainability using a holistic approach, based on existing product portfolio steering assessment schemes

Technical Innovation



MASS BALANCE

WHAT? The mass balance approach is a **drop-in solution** to reduce **fossil feedstock** consumption, waste and **greenhouse gas (GHG) emissions**.

HOW? BASF uses **recycled or bio-based feedstock** to partially substitute fossil feedstock in integrated, highly efficient chemical production. The amount of alternative feedstock is allocated **to final products** using a third-party verified certification scheme (**similar to green electricity**). Customers interested in sustainability can thus opt for a more sustainable product.



RETHINK RECYCLING

WHAT? The complementary **combination of recycling solutions** allows the most sustainable recycling option to be selected for each waste stream.

HOW? For example, BASF offers products which improve the properties of **mechanically recycled** plastics, and collaborates with Security Matters on tracing solutions. BASF invests in **chemical recycling** of tires, mixed plastic waste and mattresses to convert plastic waste back into high performance plastics. BASF's portfolio of **biodegradable and certified compostable plastics** supports the conversion of biomass into compost for certain applications.

An evolving European Policy Framework



ALTERNATIVE FEEDSTOCKS

Alternative, **bio- or waste-based feedstocks** can save fossil resources in chemical production, reduce CO₂ emissions and contribute to overall waste targets. To encourage their use, **mass balance principles** should be supported. **Standards** for a trustworthy chain of custody, including quantitative and qualitative product claims, should be developed to allow informed consumer choices. The use of alternative feedstocks should be encouraged by incentives for both segregated and mass balance allocated recycled content.

Measures are needed to support the **collection, harvest, storage and transport of renewable raw materials**. Investments in **flagships and demonstration biorefineries** should be encouraged by combined financing mechanisms, simplification of funding rules and alignment of European and national support programs.



SUSTAINABLE PRODUCTS

Products must be **designed for sustainability in the context of their use** and functions for the whole life cycle. **Holistic assessment schemes** based on life cycle thinking should be adopted. Ideally, new policies should build on existing portfolio steering approaches such as the methodology provided by the World Business Council for Sustainable Development (WBCSD). BASF also supports the application of Life Cycle Assessments (LCA) based on ISO standards and supports the development of the **European Environmental Footprint (EF)** scheme as a voluntary tool. For example, the ProScale and ProScaleE methods and mass balance approaches should be included into the latter.



WASTE MANAGEMENT

The nature of the waste determines which treatment process is the most sustainable. The sustainability benefits of technologies should be evaluated based on life cycle assessments. **Unambiguous and harmonized end-of-waste criteria** are critical for transporting and using secondary raw materials in the EU internal market without compliance risks. Efficient implementation of the **existing regulatory framework** (REACH and plant permits) should be leveraged to satisfy certification requirements with a minimum of administrative work, while guaranteeing a maximum of protection of health and the environment.

HOW TO ENCOURAGE PLASTICS CIRCULARITY?

BASF welcomes the intention of the European Commission to **encourage uptake of recycled plastics** into new products, and political **incentives such as eco-modulated EPR fees** or Green Public Procurement. **High quality recycling** and uptake of recycled plastics into performance applications should be particularly encouraged.

All recycling technologies are necessary to enable a circular plastics economy. The **technology-neutral approach** set by the European Waste Framework Directive needs to be transposed into evolving legislation, including comitology (e.g. calculation rules for recycled plastics). A level playing field must be created for mechanical, chemical and organic recycling. This comprises **incentives for both segregated as well as mass balance allocated recycled content**.

The **policy framework on the use of biodegradable or compostable plastics** should consider the benefits of such materials for certain applications, particularly when these are collected with food residues and help separate collection of bio-waste.

ABOUT BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 117,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2019. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.