

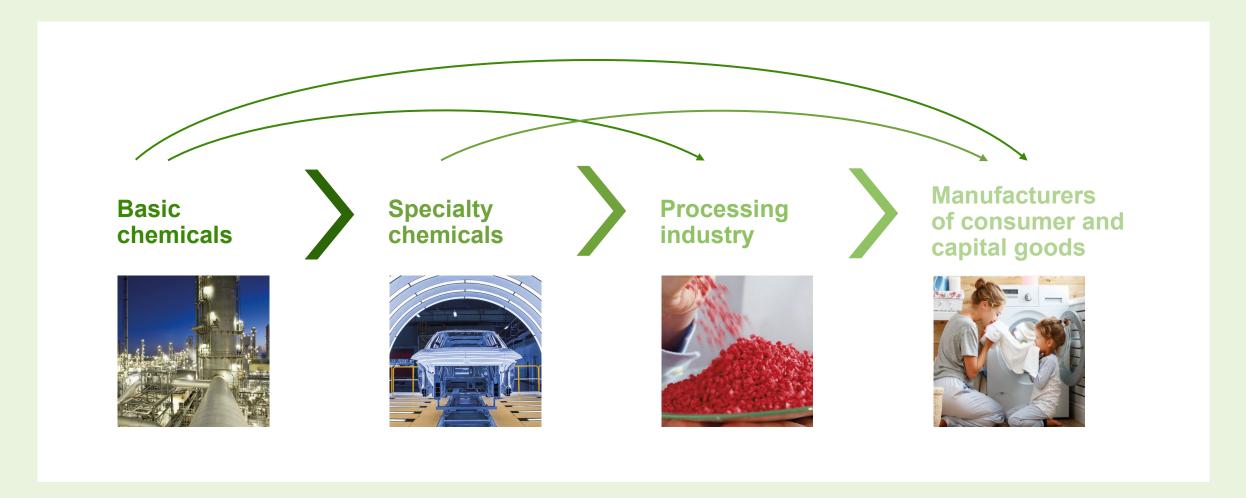
# Cautionary note regarding forward-looking statements

This presentation contains forward-looking statements. These statements are based on current estimates and projections of the Board of Executive Directors and currently available information. Forward-looking statements are not guarantees of the future developments and results outlined therein. These are dependent on a number of factors; they involve various risks and uncertainties; and they are based on assumptions that may not prove to be accurate. BASF does not assume any obligation to update the forward-looking statements contained in this presentation above and beyond the legal requirements.

The audited BASF Report 2024 including all sustainability-related indicators will be published on March 21, 2025. The key figures published on February 28, 2025, are therefore to be regarded as preliminary. From today's perspective, no adjustments are expected.



# The chemical industry is the starting point of almost all value chains



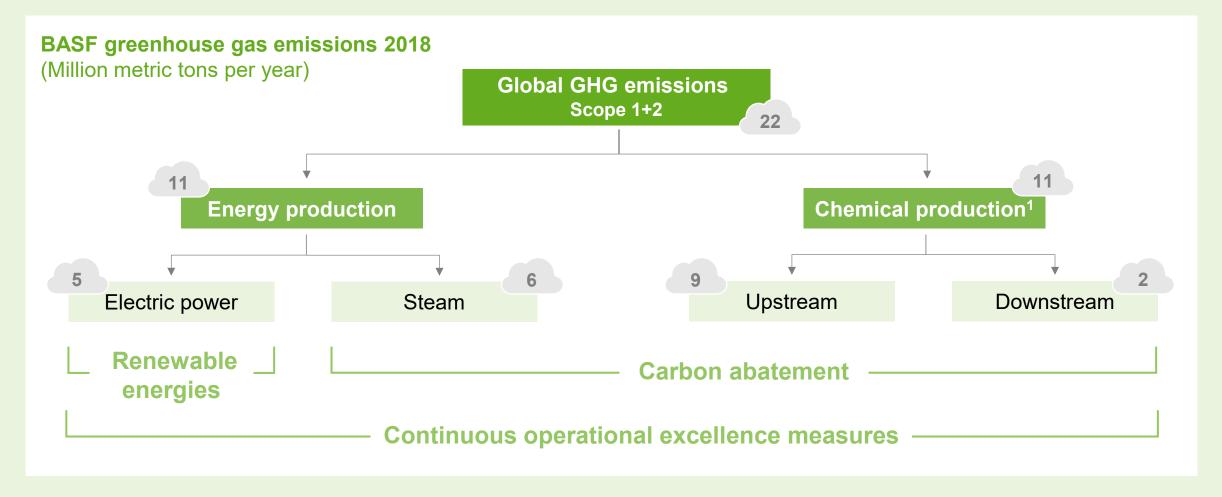


# Resource efficiency – BASF's Verbund is ideal for CO<sub>2</sub> emission reduction

- Combined heat and power plants and integrated energy Verbund avoided 6.1 million metric tons of CO<sub>2</sub>e emissions in 2024
- Synergies in logistics and infrastructure, minimization of waste
- European emissions trading benchmarks show that BASF's chemical plants operate at above-average energy efficiency



# No downstream decarbonization without upstream decarbonization



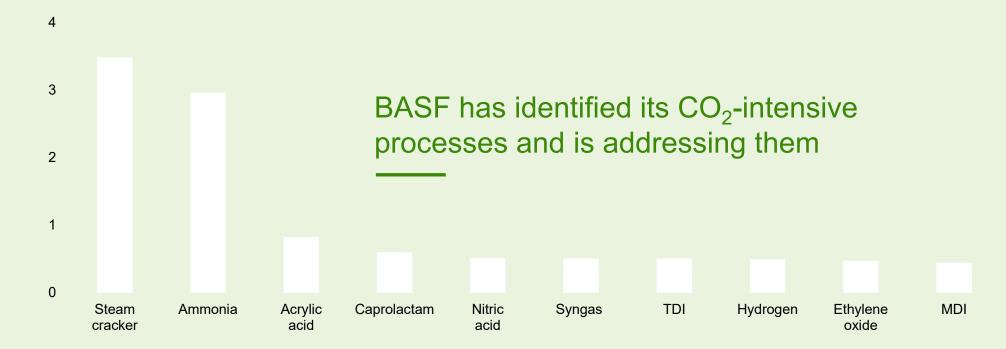
<sup>&</sup>lt;sup>1</sup> Includes emissions from process energy



# Ten base chemical production technologies cause the majority of BASF's CO<sub>2</sub> emissions

Greenhouse gas emission profile of BASF technologies

(Energy and chemistry emissions, million metric tons per year<sup>1</sup>)

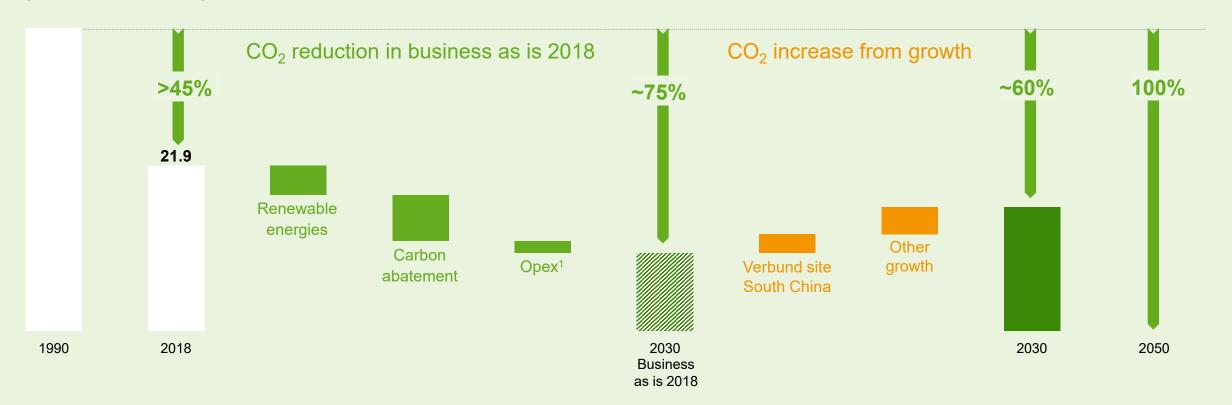




<sup>&</sup>lt;sup>1</sup> Based on nameplate capacities, March 2021, excluding at-equity consolidated companies

# Our path to reduce BASF emissions from 1990 to 2050

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

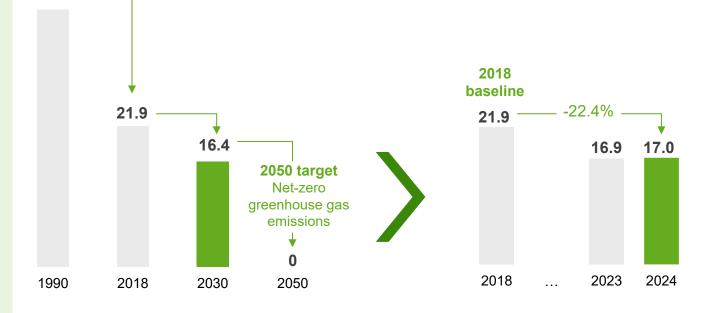


<sup>&</sup>lt;sup>1</sup> Operational excellence measures



# We are making good progress toward our 2030 target for Scope 1 and 2 emissions

# BASF greenhouse gas emissions (Million metric tons per year)



#### 2030 target

-25% greenhouse gas emissions compared with 2018 despite targeted growth

# Levers to reduce our greenhouse gas emissions

- Renewable energies
- Operational excellence
- Low-emission steam generation
- Climate-smart technologies



40.1

# We are fully committed to our climate protection targets and the transformation of the chemical industry

2030

25%

15%

Scope 1 and Scope 2

CO<sub>2</sub> emission reduction (compared with 2018)

Specific Scope 3.1 CO<sub>2</sub> emission reduction

(compared with 2022)<sup>1</sup>

2050

Net zero Scope 1, Scope 2 and Scope 3.1 CO<sub>2</sub> emissions



Orresponds to a reduction from 1.64 to 1.39 kilograms of CO<sub>2</sub> equivalents per kilogram of raw material bought; Scope 3.1, raw materials excluding battery materials, services and technical goods, excluding greenhouse gas emissions from BASF trading business

# We are shaping the transformation based on and catering to increasing customer demand

### Phase Explore and implement quick wins

1

- Implement Scope 2 measures with clear business cases
- Pilot new technologies and launch sustainable products

#### Phase Focus on market demand

2

- Secure increasing volumes of renewable feedstocks and ramp up volumes of products with sustainable attributes according to customer needs
- Execute Scope 1 measures with clear business cases

### Phase Transform asset base based on strategic relevance

3

 Decarbonize existing assets and invest in new competitive technologies in line with customer demand and our net zero target

2024

Low

High

Capex and customers' willingness to pay



# We are making progress on technologies for carbon abatement

#### **eFurnace**



eFurnace<sup>1</sup> demonstration plant built in Ludwigshafen with SABIC and Linde; testing of heating concepts ongoing





## Water electrolysis



54 MW water electrolysis<sup>2</sup> plant in Ludwigshafen (Hy4Chem-EI) to go live in Q1 2025





## **CCS** projects



**BASF** and Yara evaluating worldscale blue ammonia project using CCS in the United States<sup>3</sup>



**CCS** project to reduce BASF's CO<sub>2</sub> emissions in Antwerp by 1 million tons per year slated for startup in 2028





<sup>&</sup>lt;sup>1</sup> Supported by the Federal Ministry for Economic Affairs and Climate Action (BMWK) and funded by the European Union

<sup>&</sup>lt;sup>2</sup> Supported by the Federal Ministry for Economic Affairs and Climate Action (BMWK) and the State of Rhineland-Palatinate

<sup>&</sup>lt;sup>3</sup> Total capacity 1.2 to 1.4 million tons p.a.

# Construction of the world's largest industrial heat pump for CO<sub>2</sub>-free steam generation

Basic principle of an open-loop heat pump utilizing expansion compression the site grid reduction Ludwigshafen Separator from the plant Heat Exchanger Water from the site grid Supported by: on the basis of a decision by the German Bundesta

Funded by the Federal Republic of Germany Provider: Federal Ministry for Economic Affairs and Climate Action on the basis of a resolution of the German Bundestag. Funded by the European Union

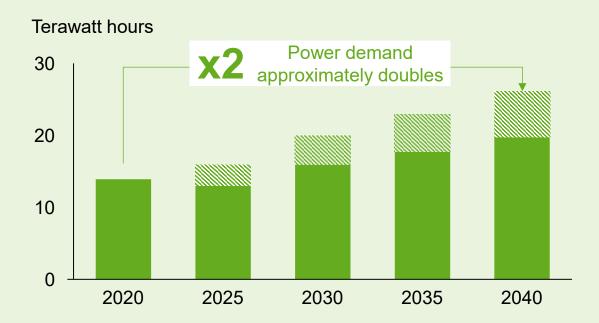
The views and opinions expressed are solely those of the author(s) and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible.

- New ways to generate steam will play a significant role in reaching our climate targets
- Heat pump will use waste heat from steam cracker for CO<sub>2</sub>-free steam
- Greenhouse gas emissions from formic acid production at the Ludwigshafen site reduced by 98 percent
- Construction scheduled to begin in Q1 2025, commissioning expected in 2027
- Project has been awarded funding by the German Federal Ministry for Economic Affairs and Climate Action and financed by the European Union



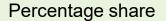
# BASF's efforts are paying off: A significantly increasing share of renewable energy alongside rising electricity demand

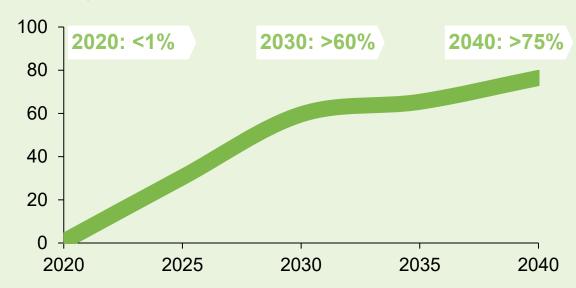
## **BASF** projected global power demand



Rising power demand due to electrification strategy and business growth, including new site in China

### **BASF** projected share of renewable power



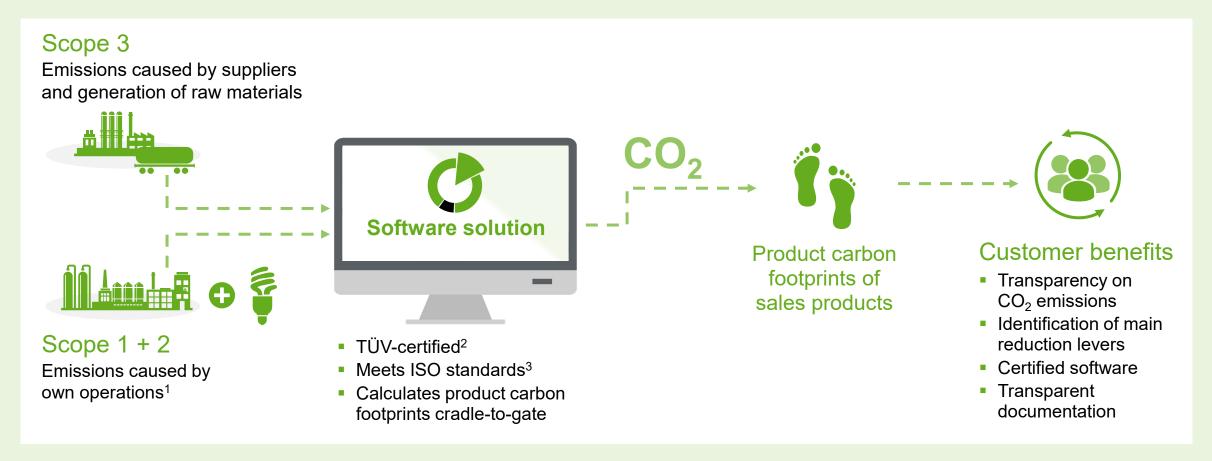


Increasing share due to investments in renewable power and conclusion of PPAs





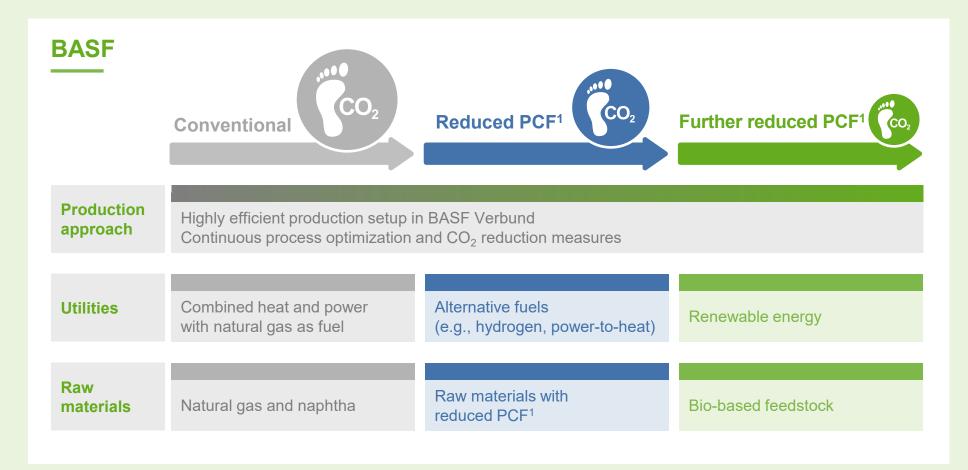
# We have built an industry-leading system enabling us to provide product carbon footprints calculated with a certified digital solution



<sup>&</sup>lt;sup>1</sup> Energy generation and chemical processes <sup>2</sup> ISO 14067:2018 <sup>3</sup> ISO 14040:2006, 14044:2006, 14067:2018, GHG Protocol Product Standard



# Our customers already benefit from product offerings with reduced carbon footprints







<sup>&</sup>lt;sup>1</sup> Product carbon footprint

# Based on our approach for renewable energy, we will set up a dedicated unit for renewable feedstocks

# **BASF Renewable Energy**



#### Dedicated unit created in 2022 to:

- Procure and trade renewable energy
- Initiate new projects to generate renewable energy from own production
- Conclude long-term supply agreements with energy producers
- Provide expertise and advice on renewable energy within BASF worldwide

## **BASF Renewable Carbon**

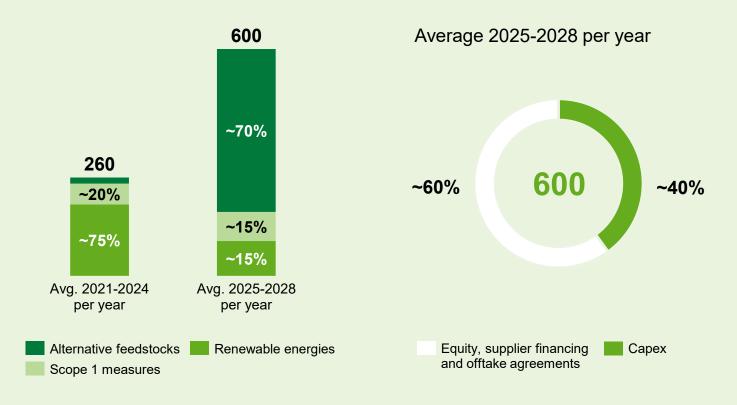


#### **New** dedicated unit to:

- Leverage existing expertise within BASF
- Oversee sourcing and trading of renewable feedstocks and biomass
- Define right entry points for the specific renewable value chains
- Pursue versatile cooperation models with suppliers, customers and partners

# Our phased transformation is also reflected in our spending

## **Transformation-related spending** (Million €)



- Transformation-related spending to average €600 million per year from 2025 to 2028
  - €225 million per year for capex
  - €375 million per year for equity participations, supplier financing and offtake agreements
- Implementation of sourcing strategy to manage price and volume volatility risks for renewable feedstocks
- Capex on new technologies at scale will follow in line with market demand and increasingly via partnerships



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

# **Recycled feedstock**

# Dedicated mechanical recycling



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



## Renewable feedstock



**Dedicated bio-based production** 

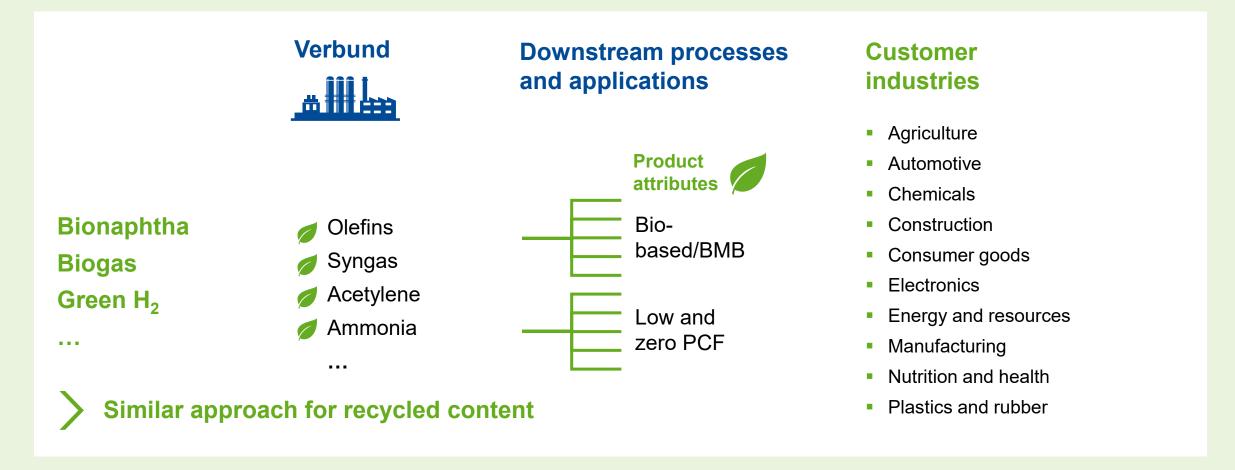


Sustainably sourced biobased resources, e.g., RSPO certified palm oil

Mass balance approach



# Our Verbund provides a scalable and competitive pathway for a gradual transformation from gray to blue to green



# We enable our customers' green transformation with an increasingly sustainable product portfolio

Sustainable-Future Solutions (TripleS sales share1)

41%

2023

>50%

2030

**Sustainable-Future Solutions** are products that offer sustainability benefits in terms of:

- Resource efficiency
- Climate change and energy
- Circularity
- Other<sup>2</sup>

**Loop Solutions sales** (Billion €)

€5<sub>bn</sub>

2023

€10<sub>bn</sub>

Loop Solutions are products that:

- close the loops by being based on renewable or recycled feedstocks or enabling recyclability and/or biodegradability
- extend the loops by performing better with less and thus helping to decouple growth from material consumption



<sup>&</sup>lt;sup>1</sup> TripleS: Sustainable Solution Steering methodology for steering the product portfolio based on sustainability criteria; not included: platinum group metals within ECMS, strategically non-relevant businesses such as IT services, licenses, etc.

<sup>&</sup>lt;sup>2</sup> "Other" comprises health and safety, pollution reduction, biodiversity, water protection and zero hunger

# We focus on three areas of circularity – enabling circular feedstocks, new material cycles and new business models



### Circular feedstocks

We will increase the volume of renewable and recycled feedstocks from sustainable sources, also via the certified mass balance approach.

## **New material cycles**

We design materials for circularity, develop solutions which improve or enable recycling, enable higher durability and prolonged lifetime/use phase of products, and establish product-specific recycling loops.

### **New business models**

We enter new markets, create smart digital solutions and offer new services which allow a decoupling of growth from resource consumption.



# We aim to reach €10 billion sales from Loop Solutions<sup>1</sup> for our customers by 2030

## Close the loop



# Renewable-based feedstocks

Example: CathoGuard® 800 ReSource protects car bodies from corrosion





### **Recycled-based feedstocks**

Example: Neopor® F 5 Mcycled™ from certified post-consumer EPS packaging





# **Q** Enabling recyclability and/or biodegradability

Example: Epotal® adhesives for the recycling of multilayer packaging materials



<sup>&</sup>lt;sup>1</sup> Loop Solutions: Sales of circularity products ("close the loop" and "extend the loop") based on TripleS (Sustainable Solution Steering) portfolio assessment; baseline 2023: €5 billion sales

## **Extend the loop**



## **Higher durability**

Example: Ultrason® offers high material strength, design freedom and high heat resistance for a broad range of applications





## Prolonged lifetime/use phase of products

Example: Tinuvin® light stabilizers protect plastics against all sorts of weather conditions





# From a linear to a more circular economy – BASF contribution: ChemCycling<sup>TM</sup>

# **ChemCycling**<sup>™</sup>

- + can handle mixed plastic waste
- + produces virgingrade materials
- + replaces virgin fossil resources
- + CO<sub>2</sub> emissions prevented<sup>1</sup>

## **Creating value from waste**

- BASF works with technology partners specialized in converting mixed plastic waste and end-of-life tires into liquid feedstock (pyrolysis oil)
- The recycled raw material is fed into BASF's value chains
- Pyrolysis oil is used to produce mass-balanced Ccycled™ materials for industries like automotive, packaging and textiles



Mechanical recycling

- Incineration
- Landfill
- Littering



<sup>&</sup>lt;sup>1</sup> Compared to conventional plastic production and incineration of plastic waste

# TripleS method increases measurability and transparency on sustainability – developed by BASF, adopted by the industry



- Methodology refined after achieving 2025 Accelerator target ahead of schedule in 2021
- Approximately 45,000 products are analyzed and classified worldwide
- Each product in its application is assigned to one of five TripleS segments
- Portfolio steered toward climate protection, resource efficiency and circular economy with Pioneer and Contributor products
- The World Business Council for Sustainable Development adopted BASF's TripleS logic for its Portfolio Sustainability Assessment (PSA)

# We categorize our product portfolio into five TripleS segments, taking upcoming regulatory changes into account



**Pioneer:** Products with adequate profitability and a positive contribution to sustainability above the market standard with regard to the topics of Biodiversity, Water Protection, Pollution reduction, Zero Hunger & Poverty, Health and Safety, Climate Change & Energy, Circularity or Resource Efficiency





**Contributor:** Products with adequate profitability and a positive contribution to sustainability on market standard with regard to the topics of Climate Change & Energy, Circularity or Resource Efficiency



Standard: Products performing on market standard without a dedicated contribution to the topics of Climate Change & Energy, Circularity or Resource Efficiency



Monitored: Products with specific identified regulatory or customer concerns arising mid-term (2-5 years) or posing a regional reputational risk for BASF



Challenged: Products with identified strong regulatory or customer concerns arising short-term (≤2 years), with Substances of Very High Concern in applications with an intended consumer use, violating BASF's Code of Conduct or posing a strong global reputational risk



# Protecting biodiversity is a key element of BASF's commitment to sustainability

### **Transform**

Contribute to system-wide change



**Restore & Regenerate** 

Recover the state of nature



Avoid & Reduce

When prevention is not possible, minimize impacts



- Key biodiversity loss drivers<sup>1</sup> for BASF are habitat transformation, climate change, overexploitation and pollution. We evaluate BASF's impacts at our sites and along the value chain.
- Various methods are used to measure our sustainability performance, e.g., Ecoefficiency analysis, Sustainable Solution Steering (TripleS) and AgBalance®
- Quantifying biodiversity is tremendously complex and requires location-specific approaches
- BASF is taking action by applying the mitigation hierarchy:
  - We avoid and reduce negative impacts on nature, e.g., by reducing GHG emissions, applying water stewardship, integrating Responsible Care®
  - We strive to restore or regenerate nature, e.g., in local projects like Mata Viva in Brazil
  - We contribute to system-wide change by transforming our business models to renewable energy, renewable raw materials and more circularity



<sup>&</sup>lt;sup>1</sup> IPBES models of drivers of biodiversity and ecosystem change

# Taking action to protect nature and biodiversity across the value chain

# **Supply chain**

- Supplier Code of Conduct
- Responsible sourcing,
   e.g., Palm Sourcing Policy<sup>1</sup>
- Forest protection position<sup>2</sup>



## Sites and production

- Measures to increase resource efficiency and reduce emissions
- Water stewardship
- Site-specific biodiversity projects
- Remediation

## **Products**

- Commitment to the Responsible Care<sup>®</sup> charter
- Product innovation through TripleS
- Product stewardship

## **Initiatives**



We are engaging in dialogs with a variety of stakeholders, for example:

- Forum of the Taskforce on Nature-related Financial Disclosures (TNFD)
- Roundtable on Sustainable Palm Oil (RSPO)
- Alliance to End Plastic Waste (AEPW)
- BASF Nature Advisory Council



<sup>&</sup>lt;sup>1</sup> basf.com/palm-sourcing-policy

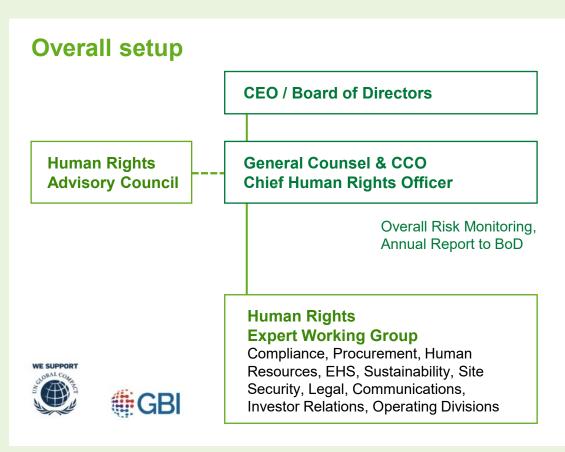
<sup>&</sup>lt;sup>2</sup> basf.com/forest-protection-position



# Global water stewardship – strong commitment to local water management

- Further increase of water stress areas expected worldwide (climate change, population growth and economic development)
- Growing competition among water users expected (e.g., households, agriculture, industry)
- Goal: Introduction of sustainable water management at our Verbund sites and at all production sites in water stress areas by 2030, covering ~90% of BASF's total water abstraction
  - Water stress areas are regions where more than 40% of available water is used by industry, households and agriculture
  - Status 2024: 65%

# Respect for human rights at BASF – longstanding self-commitment led to solid structures, proven processes and experience



# Important building blocks







### **Backbone**







## **Grievance mechanism**





# Engaged employees – proud ambassadors for what BASF stands for



- BASF's employees and their engagement are key to enable our long-term business success
- Annual goal: More than 80% of our employees feel that at BASF, they can thrive and perform at their best
- Global survey "Employee Voices" in 2024: 79% of all participants agreed with the statement that at BASF they can thrive and perform at their best

# **Corporate Governance – two-tier** management system of BASF SE

## **Board of Executive Directors**



6 members

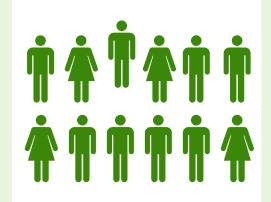
- appointed by the Supervisory Board
- Chair

appointed by the Supervisory Board

- appoints the Board of **Executive Directors**
- monitors the Board of **Executive Directors**
- advises the Board of **Executive Directors**

reports to the Supervisory Board

## **Supervisory Board**



#### 12 members

6 shareholder representatives elected by the Annual Shareholders' Meeting and 6 employee representatives

#### Chair

elected by the Supervisory Board

- Transparent and effective separation of company management and supervision
- Reasonable level of diversity, e.g., with respect to gender:
  - Board of Executive Directors: 17% female members
  - **Supervisory Board:** 33% female members



# We create chemistry for a sustainable future – overview of sustainability-related targets<sup>1</sup> (1/2)

Climate protection	Target	2024 status
Reduce our absolute CO <sub>2</sub> emissions <sup>2</sup> by 25% by 2030 (baseline 2018)	≤ 16.4 million metric tons	17.0 million metric tons
Reduce our specific CO <sub>2</sub> emissions <sup>3</sup> by 15% by 2030 (baseline 2022)	1.39 kg CO <sub>2</sub> per kg raw materials	1.58 kg CO <sub>2</sub> per kg raw materials

Product portfolio	Target	2024 status
Increase the sales share of Sustainable- Future Solutions to more than 50% by 2030	> 50%	46.3%
Increase sales of Loop Solutions to €10 billion by 2030	€10bn	€5.7bn

# Achieve net zero CO<sub>2</sub> emissions<sup>2</sup> by 2050

<sup>&</sup>lt;sup>3</sup> Scope 3.1, raw materials excluding battery materials, services and technical goods, excluding greenhouse gas emissions from BASF trading business. Future adjustment of the baseline in line with the TfS guideline possible depending on the availability of further primary data.



<sup>&</sup>lt;sup>1</sup> The sustainability-related indicators should be regarded as preliminary until the audited BASF Report is published on March 21, 2025.

<sup>&</sup>lt;sup>2</sup> Scope 1 and Scope 2 (excluding the sale of energy to third parties). The target includes greenhouse gases according to the Greenhouse Gas Protocol, which are converted into CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

# We create chemistry for a sustainable future – overview of sustainability-related targets<sup>1</sup> (2/2)

Resource efficiency and safe production	Target	2024 status
Reduce worldwide <b>high-severity process safety incidents</b> per 200,000 working hours to ≤ <b>0.10</b> by 2030	≤ 0.10	0.03
Reduce worldwide <b>high-severity lost-time work process-related injuries</b> per 200,000 working hours to ≤ <b>0.05</b> by 2025	≤ 0.05	0.02
Introduce sustainable water management at our production sites in water stress areas and at our Verbund sites by 2030	100%	65%

Employee engagement and diversity	Target	2024 status
Increase the proportion of women in leadership positions with disciplinary responsibility to 30% by 2030	30%	27.2%
More than <b>80%</b> of our <b>employees</b> feel that at BASF, they can <b>thrive</b> and <b>perform at their best</b> <sup>2</sup>	> 80%	79%²

Responsible procurement	Target	2024 status
Improve sustainability performance of suppliers who had a sustainability evaluation in the reporting period and who had inadequate results in the previous, comparable evaluation	80%	80%

<sup>&</sup>lt;sup>1</sup> The sustainability-related indicators should be regarded as preliminary until the audited BASF Report is published on March 21, 2025.



<sup>&</sup>lt;sup>2</sup> We regularly calculate the employee engagement level. The most recent survey was conducted in 2024.

# **BASF** in sustainability ratings and rankings

#### **MSCI ESG Research**

In 2025, BASF was rated A. The analysts highlighted BASF's efforts regarding governance, CO<sub>2</sub> and water management.

### **CDP Disclosure Leadership**

In February 2024, CDP once again awarded BASF Leadership status (A-) in the categories of climate protection, water management and forest protection.

## **Morningstar Sustainalytics**

BASF belongs to the best category for "diversified chemicals" with a medium ESG risk and was recognized for its strong risk management, e.g., in the areas of CO<sub>2</sub> emissions, wastewater and waste as well as occupational health and safety.

#### **ISS ESG**

In 2024, BASF held its Prime Status (B-), being among the top decile rank of the companies assessed.













We create chemistry