

# Environment

## E1 Climate Change<sup>1</sup>

### ESRS E1

As an energy-intensive company, we take responsibility for the efficient use of energy and global climate protection, and are committed to the Paris Agreement. We are determined to follow the path toward climate neutrality and to enable our customers' green transformation by providing low-emission chemistry.

### ESRS 2 IRO-1 ESRS 2 SBM-3

Our business activities result in the production of greenhouse gas emissions,<sup>2</sup> which have a negative impact on the climate. These are emissions from our production, our energy procurement and our upstream and downstream value chain. We are working to achieve a considerable reduction in these emissions along the entire value chain. This also creates opportunities for our business activities: Thanks to our transformation toward climate neutrality, we can increasingly offer our customers products with a reduced Product Carbon Footprint (PCF).

### Resilience and scenario analyses

At the same time, we have to position our business in line with the consequences of climate change and to create resilience. As a company that is active in a very wide variety of different regions and business areas, we take a diversified approach to climate change adaptation.

We use our TripleS method (Sustainable Solution Steering, see page [161](#)) to continuously review the resilience of our product portfolio with respect to environmental and social matters. We do this by categorizing our products into different segments. This enables us to quantify and steadily increase the proportion of products that contribute to sustainability. At the same time, products facing substantial regulatory, customer-specific or sustainability challenges are identified and removed from our portfolio within five years.

As part of our business strategy development, we also examine the medium- to long-term resilience of our business models from an ecological, economic and social perspective, and with a view to their impacts, risks and opportunities. As regards climate change, this process only looks at transition risks and opportunities – we analyze physical climate risks and existing resilience centrally for our sites (see page [180](#)). In 2024, we started embedding **resilience analysis** in our processes to a greater extent. The primary focus here is on our own business. The strategies of our business units are updated on a regular basis. This is done either individually at business unit level or as part of the overarching divisional strategy, and involves specialists from the business unit or operating division concerned and from our central strategy unit. In 2024, we piloted a method to address material topics in the strategies of the

<sup>1</sup> Unless otherwise stated, all metrics in the text comply with the consolidation by financial control approach (see also the disclosures on consolidation for the nonfinancial reporting on page [151](#)). The metrics listed in this section on the target-relevant Scope 1 and Scope 2 emissions are part of the statutory audit and have been audited with reasonable assurance.

<sup>2</sup> The terms "greenhouse gas emissions" and "CO<sub>2</sub> emissions" are used synonymously. They include all greenhouse gases in accordance with the Greenhouse Gas Protocol.

business units with a view to the next ten years.<sup>3</sup> Depending on the extent of the strategy revision, resilience reviews, regulatory aspects and stakeholder expectations can be included to estimate future market developments. Upstream and downstream value chains can also be taken into account. At the same time, climate-related transition risks are captured as part of our strategic controlling process. For example, this allowed us to identify the influence of emissions trading schemes as a risk and changes in demand for more sustainable products as an opportunity.

We also performed a comprehensive analysis of the resilience of the plants at our largest site in Ludwigshafen, Germany, in the past year. We consider a large proportion of our plants to be well positioned and competitive going forward. A short- to medium-term competition risk was identified for 16% of the plants.<sup>4</sup> Specific measures – which can also include their closures – are already being implemented for these plants so as to increase site profitability. We have identified a long-term risk for 6% of the plants, which we address through market-based measures.<sup>4</sup>

We use a variety of **scenarios** for future macroeconomic development in our strategy development and risk management (for more information on these scenarios, see the section on climate-related transition on page [180](#)). In contrast to the assumptions made when analyzing physical climate risks, the scenarios that we use here limit global warming to different extents. Using multiple scenarios addresses and minimizes uncertainties regarding expected developments and enables us to determine risks associated with different future developments. The chemical industry, which is the start of many value chains, can play a key role in the transformation process. Growing electrification – including of our own plants – will considerably increase the need for energy from renewable sources going forward. At the same time, the use of fossil raw materials will decline and the circular economy will become more important.

Our business units regularly analyze the opportunities and risks arising from the scenarios, including, where possible, their financial impacts. In strategy development, scenario impacts are largely examined from a qualitative perspective during assessment. We use a multistage process to review the economic efficiency of investment decisions. The metrics used in this process are calculated for different scenarios, highlighting differences that may affect the decisions. We also use opportunities and risks relating to environmental and social matters to evaluate projects. In addition, we regularly review planned CO<sub>2</sub> abatement strategies. We have identified measures when implementing our strategy that will enable low-emission plant operation in the long term. The necessary access to funding as part of the transformation is assisted by our Green Finance Framework.

BASF has published a comprehensive corporate carbon footprint every year since 2008. This reports on all greenhouse gas emissions along the value chain – from raw materials extraction to production and subsequent disposal. We regularly analyze the future development of our emissions. Additional greenhouse gas emissions resulting from business expansion are determined as early as the project assessment phase. We build on these to capture the current and future impacts that our business has on climate change.

Climate change poses challenges for us but also offers opportunities for our business activities that enhance the resilience of our business models. For example, our products and solutions contribute to reducing greenhouse gas emissions in many areas.

<sup>3</sup> The time periods considered in the resilience analysis described here only correspond exactly to those of the transition risk analysis. Our climate protection targets for 2030 are within the period under review. We consider physical climate risks and corresponding resilience over a longer period of time, as these only have an impact in the long term.

<sup>4</sup> The figures correspond to the time horizons used by BASF in the course of the assessment (short-term: until 2026, medium-term: until 2030, long-term: after 2030).

### Climate-related physical and transition risks

We systematically assess physical and transition influences to identify and assess material climate-related risks and opportunities.

When assessing our production sites for **physical climate risks**, we focus on material sites that make a relevant contribution to our business and our portfolio. The assessment is performed on the basis of climate data from the current Intergovernmental Panel on Climate Change (IPCC) scenarios, which were compiled together with an external partner. In the process, we focus on a climate protection scenario with a high level of global warming.<sup>5</sup> This data helps to analyze the potential impacts that climate change could have on the production sites in the coming decades. Our assessment addresses both current risks and long-term risks with a time horizon of 30 years. If long-term risks are identified, we examine whether they also represent a medium-term risk. Physical climate risks are assessed using geographical coordinates at site level. In a first step, a qualitative assessment is performed and sensitivities to various climate risks are prioritized so as to obtain an initial indication of potential material risks. Sensitivity analysis takes both internal and external factors into account. Internal factors comprise the resilience of plants, infrastructure, operations and services. External factors comprise the external infrastructure, water, energy and raw materials supplies, wastewater treatment and the dispatch of finished goods. In addition, the assessment considers risks affecting the entire site and, where relevant, individual plants or specific parts of the site.

We anticipate that most sites will be particularly affected by increasing heat and drought, whereas some may be faced with heavy precipitation and a few could also be exposed to risks in connection with flooding, hail, water stress and wildfires. Where risks are estimated to be in excess of €10 million, potential material losses are quantified and an adaptation plan is drawn up. Targeted site- and business-specific measures can involve optimizing process flows and infrastructure, for example. Based on our assessment in the reporting year, we consider our sites to be well positioned for climate change. However, the transportation of key raw materials and products depends materially on water levels on the River Rhine, for example, especially in the critical Middle Rhein region. An extreme drought could significantly impact transportation, or even bring it to a standstill. We are currently working to more precisely determine the scope of materiality of this risk and the sites affected. We have already taken measures to counteract this risk (see page [224](#)).

With respect to **transition climate risks** and opportunities, global climate policy ambitions and the implementation of relevant measures play a decisive role in the continuing growth of the chemical industry and its customer industries. Consequently, we have worked together with an external partner using an empirical simulation model to define and quantify global long-term scenarios up to 2050 featuring various global warming paths. In addition, a net-zero scenario in the EU and the United States by 2050, and globally by 2060, was also analyzed, which limits global warming to 1.5°C. The fundamental drivers for the scenarios are different societal preferences and, building on these, climate and economic policy objectives. To assess the impact of different global climate policy approaches on our business units, the scenarios are discussed by the business units in workshops. Feedback is incorporated into the ongoing development of the scenarios.

The resulting risks were reviewed for materiality as part of the double materiality assessment. Going forward, the material transition risks identified at Group level will be systematically examined by our business units and quantified if possible, and countermeasures will be taken where necessary. Adaptation measures can include modifying our product portfolio, investments in new technologies or enhancing existing technologies.

<sup>5</sup> The assessment model was based on the IPCC SSP5-8.5 climate change scenario (high global warming scenario) as the worst-case scenario.

We continuously analyze physical and transition opportunities and risks arising in connection with the topics of energy and climate protection as part of our opportunity and risk management (for additional information, see page [87](#) onward).

The double materiality assessment that we performed in 2024 (see page [167](#)) resulted in seven material impacts on climate change, plus four material climate-related risks and two material climate-related opportunities for BASF (see the following table "Results of the double materiality assessment"). For information on the relevant time horizons, see the overarching table on the results of the double materiality assessment (page [169](#)).

### Results of the double materiality assessment for E1 Climate Change: Impacts

Impacts	Evaluation	Placement in the value chain	Description
Climate-damaging emissions due to the use of fossil fuels in our upstream value chain (Scope 3)	Negative	Upstream value chain	The extraction and procurement of fossil energy causes greenhouse gas emissions, air and water pollution and habitat destruction in our upstream value chain.
Land-use change due to sourcing plant-based raw materials	Negative	Upstream value chain	Our procurement of plant-based raw materials creates an incentive to cultivate certain plants and expand the production environment for material loops. This negatively impacts land use.
Shift to renewable energy and electrification impacts the environment through the use of raw materials such as lithium.	Negative, potential	Upstream value chain	The manufacture and use of renewable energy requires minerals and metals whose mining and subsequent processing could negatively impact the environment. In addition, their mining poses a risk of inappropriate working conditions in some regions.
Climate-damaging emissions due to the use of fossil fuels for our production (Scope 1 and 2)	Negative	BASF's own operations	Our own production of energy in the form of steam and electricity using fossil fuels leads to emissions of greenhouse gases and other pollutants and thereby impacts the climate and the environment.
Climate-damaging emissions from oil and gas business <sup>a</sup>	Negative	Downstream value chain	The oil and gas business in which BASF holds shares causes greenhouse gas emissions during combustion at customers, and leads to environmental impacts in the downstream value chain.
Accelerated transition to climate neutrality through energy transformation	Positive	Upstream and downstream value chain	By investing in renewable energy, we can offer our customers products with a reduced Product Carbon Footprint (PCF) and contribute to the transition toward climate neutrality by reducing upstream emissions.
Innovations as a lever for climate change mitigation and climate change adaptation	Positive	Upstream and downstream value chain	Innovations in chemistry and new technologies can contribute materially to climate change mitigation and adaptation. We use our TripleS method (Sustainable Solution Steering) to manage our product portfolio on the basis of our products' sustainability performance.

<sup>a</sup> On September 3, 2024, BASF transferred Wintershall Dea's exploration and production business, excluding Russia-related activities, to Harbour Energy plc, London, United Kingdom. BASF continues to hold a material interest in Harbour Energy (see also page [344](#)).

## Results of the double materiality assessment for E1 Climate Change: Risks and opportunities

Risks and opportunities	Evaluation	Description
Rising product prices, and/or production costs and/or lower market growth	Negative, transition	Lower-emission production using raw materials with reduced carbon footprints and renewable energy increases production costs and ultimately also product prices. Coupled with societal pressure to consume less, this could lead to lower market growth.
Fragmentation in national and regional climate policy – and thus in the market	Negative, transition	Pronounced differences in the regulatory framework due to divergent regional climate policies pose particular strategic challenges for us as a globally active company.
Regulatory volatility leading to competitive risks	Negative, transition	Political regulations designed to mitigate climate change, such as those set out in the EU Green Deal, could represent a competitive risk for us due to higher costs, for example as a result of administrative effort, and a high level of volatility.
Rising energy costs due to climate-related regulations	Negative, transition	For BASF as an energy-intensive company, risks arise particularly from regulatory changes such as in carbon pricing on emissions trading systems, in taxes and in energy legislation.
Market opportunities through climate-smart products	Positive, transition	Our broad product portfolio includes, among other things, solutions for the circular economy and climate change mitigation. Increasing societal demands and resulting regulations would offer additional market opportunities for these products.
Renewable energy opens up opportunities for cheaper or otherwise more advantageous procurement.	Positive, transition	Investments in own power assets and long-term supply contracts reduce dependencies on volatile global markets and lead to comparatively lower CO <sub>2</sub> abatement and energy procurement costs.

## Strategy and governance

### E1-2

Climate change is the greatest challenge of the 21st century. Swift and resolute action is needed to achieve the targets agreed in the Paris Agreement. We stand by this responsibility. Climate change mitigation and the transformation of the chemical industry are very important to us and an important part of our corporate strategy (for more information, see page [18](#)).

BASF is taking a step-by-step approach to the green transformation and is combining climate change mitigation with its customers' and its own success. Our ambition is to be the preferred chemical company to enable our customers' green transformation. In recent years, we have increasingly invested in renewable energy to power our plants, tested new technologies and deployed alternative raw materials so as to drive forward our transformation and launch more sustainable products with a reduced or a net-zero carbon footprint on the market. This also allows our customers to benefit from our emission reduction measures.

In the future, we will focus even more on the specific opportunities for our business and will prioritize projects for which we see growing customer demand and willingness to pay. The focus will continue to be on projects that secure our license to operate. We will stagger our transformation projects over time in keeping with these priorities. In a first step, we are planning to use greater amounts of bio-based and recycled feedstocks in our existing plants. In doing so, we will make the most of the unique advantages offered by our Verbund. We are expecting demand for more sustainable products to outpace supply in the medium term, leading to profitable growth for BASF. As the markets for more sustainable products grow, we will be in a position to scale up and apply the new technologies that we are currently developing and, in some cases, already piloting. This step-by-step approach to transformation is reflected in our investments: Expenditure associated with the transformation is expected to average €600 million per year between 2025 and 2028. We expect that the majority of major capital expenditures for our green transformation will arise in the period after 2030.

We have established comprehensive management and control systems to minimize negative environmental impacts and protect the environment. Our **Responsible Care Management System** includes not only Group-wide requirements and guidelines for health and safety (for more information, see pages [209](#) and [278](#)) but also the areas of environmental protection and energy. Our global environmental protection standards serve to assess environmental impacts such as those resulting from CO<sub>2</sub> emissions. In addition, we implement the technical, operational and administrative measures needed to control and minimize these impacts, and ensure that we comply with national and local environmental legislation. Our global energy standards are specifically aimed at reaching our Scope 1 and Scope 2 climate protection targets (see "Global Targets"). In them, we undertake to continuously improve the energy efficiency of our operating procedures by implementing energy management systems, and to drive forward resource-saving and economic production at our sites. Moreover, we have defined general guidelines for optimizing existing energy supply structures and developing new energy supply concepts. These also involve evaluating low-emission and emission-free alternatives such as electricity and steam from renewable sources. We use requirements for systematically collecting and monitoring emissions and energy data as the basis for improving our sustainability performance and managing our climate protection targets.

The Corporate Environmental Protection, Health, Safety and Quality unit in the Corporate Center defines Group-wide management and control systems and monitors compliance with internal requirements and legal regulations, while the sites and Group companies implement these requirements locally. We regularly audit our performance and progress, and hence the effectiveness of our requirements. Our global network enables information and insights to be shared across the BASF Group on a regular basis. Our requirements and guidelines are continuously updated. To this end, we also exchange information with authorities, associations and international organizations. For example, BASF is actively involved in the global Responsible Care® initiative established by the International Council of Chemical Associations (ICCA).

We address climate change adaptation centrally through our approach to assessing physical climate risks (see page [180](#)). Based on this, our sites resolve and implement local measures such as adapting logistics to low water as well as flood protection measures. The risks associated with adapting to climate change depend heavily on the geographical location of our sites, site-specific conditions and the underlying regulations in the respective countries, and in some cases differ considerably. An overarching policy therefore does not exist.

We have also established guidelines and requirements for managing our emissions along the value chain, and thus our Scope 3.1 target and the Scope 3.1 emissions for our net-zero target by 2050. Our procurement organization has established a global risk-based management system for our upstream supply chain. We have defined the standards for this in a global procurement requirement. We continuously enhance this requirement and our structures and processes in order to adapt to changing conditions. Our suppliers are required to comply with internationally recognized environmental standards. Our expectations of our suppliers are laid down in the global **Supplier Code of Conduct** (see page [295](#)), which is part of our purchasing conditions. The code is based, among other things, on the Ten Principles of the United Nations Global Compact initiative and the Responsible Care® initiative, and includes the deployment of energy-efficient, environmentally friendly technologies. We endeavor to ensure compliance with these requirements using a multistage control process. In addition, BASF has drawn up principles for the responsible procurement of renewable raw materials, plus standards in relation to Product Carbon Footprints and eco-efficiency analyses with the aim of reducing our products' carbon footprints.



For further explanations of our overarching policies in respect of scope of application, accountability, impacts in the value chain, global applicability, accessibility to stakeholders and engagement thereof, see General Disclosures in our Sustainability Statement on page [151](#).

#### ESRS 2 GOV-3

We have laid the foundations for our successful transformation by establishing internal incentive schemes and we are setting up our organization accordingly.

We anchored reducing our Group-wide CO<sub>2</sub> emissions (Scope 1 and Scope 2)<sup>6</sup> as the **most important nonfinancial key performance indicator** in the BASF Group's steering and compensation systems back in 2020, giving it even more weight. This is one of three equally weighted (33.3%)<sup>7</sup> strategic targets for the long-term incentive (LTI) of the Board of Executive Directors and senior executives. Supervisory Board remuneration does not include any variable components and so is not linked to target achievement.

We used a short-term incentive (STI) program to introduce targets for the senior executives in our operating business units in the reporting year, with the goal being to drive forward the market-driven transformation as part of our new strategic direction. In addition to the financial targets, this defines three further targets: occupational and process safety, sustainability and development of the operating divisions. The first two targets mentioned are sustainability-related. All three objectives are equally weighted in the STI calculation and together account for 25% of the total STI formula. This means that 16.7% of the entire STI formula is sustainability-related. The sustainability target includes elements that contribute to our green transformation, such as sales of our Sustainable-Future Solutions (for more information, see page [161](#)) or that increase the share of purchased raw materials with supplier-specific Product Carbon Footprints (for more information, see page [193](#)).

» For additional information on integrating sustainability-related achievements into our incentive systems, see the Compensation Report at [basf.com/compensationreport](https://basf.com/compensationreport)

Our organizational structures are designed in such a way as to permit a market-driven transformation to a more sustainable product portfolio, plus the achievement of our climate protection targets. The Corporate Center unit Corporate Environmental Protection, Health, Safety and Quality, which reports to a member of the Board of Executive Directors, is responsible for our Responsible Care Management System. The Corporate Strategy & Sustainability unit, which reports to the Chairman of our Board of Executive Directors, develops the BASF Group's climate protection targets and tracks the emission reduction levers aiming at achieving them. The Global Procurement unit, which reports to the Chief Financial Officer, is responsible together with Corporate Strategy & Sustainability for the purchasing processes and procurement requirement relating to our raw materials-related targets. As part of our new corporate strategy, the BASF Renewable Carbon unit within Global Procurement is continuing to drive the sourcing of renewable raw materials and biomass for BASF's operating divisions. This is the counterpart to BASF Renewable Energy GmbH, the subsidiary that coordinates the procurement of renewable energy.

The Net Zero Accelerator unit, which had focused on emissions reduction projects since 2022, was dissolved as of January 1, 2025, in line with the new corporate strategy. The activities were integrated into existing divisions and service units, ensuring that BASF's green transformation is aligned even more closely with market trends and that the business can better react to new customer requirements.

<sup>6</sup> Scope 1 and Scope 2 (excluding the sale of energy to third parties). Greenhouse gases according to the Greenhouse Gas Protocol, converted into CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

<sup>7</sup> The exact percentage influence on compensation depends on target achievement. For more information, see the Compensation Report at [basf.com/compensationreport](https://basf.com/compensationreport).

## Transition plan for climate change mitigation

### E1-1

We are pursuing ambitious climate protection targets. We want to reduce greenhouse gas emissions from our production processes (Scope 1) and our energy purchases (Scope 2) by 25% by 2030 compared to the base year of 2018, and are aiming to achieve net-zero greenhouse gas emissions by 2050.<sup>8</sup> Our target focuses on emissions caused by our production and includes around 96% of our Scope 1 emissions and 99% of our Scope 2 emissions (see page 194).<sup>9</sup> It is compatible with limiting global warming to 1.5°C based on the emission reduction pathways described by the International Energy Agency (IEA) in its study entitled "Net Zero by 2050."<sup>10</sup> Already today, the emissions intensity of our plants for producing basic chemicals such as ammonia, methanol and high value chemicals is below the values defined by the IEA for 2030.

» For additional information on the analysis of our Scope 1 and Scope 2 target and on compatibility with the goals of the Paris Agreement, see [basf.com/corporate\\_carbon\\_footprint](https://basf.com/corporate_carbon_footprint)

Above and beyond our own production, we take responsibility for emissions along our value chain. This is why we set ourselves a target for our raw materials-related Scope 3.1 emissions in 2023 that includes around 92% of our Scope 3.1 emissions.<sup>11</sup> Raw materials-related emissions from battery materials are initially excluded from the target (see page 196). By 2030, we want to reduce these Scope 3.1 emissions in relation to the purchasing volume specifically by 15% compared to the 2022 base year (see page 195). However, the IEA study does not provide a basis for deriving an emissions reduction pathway for these emissions.

To achieve our climate protection targets, we have developed a transition plan<sup>12</sup> that shows our emissions reduction path based on the most important levers. We are focusing on the following emission reduction levers<sup>13</sup> to reduce our greenhouse gas emissions from our own production and energy purchases (Scope 1 and 2):

- **Renewable energy:** We are increasingly meeting our electricity needs from renewable sources (see the actions on page 189).
- **Operational excellence:** Our operational excellence activities are continually improving the energy and process efficiency of our plants (see the actions on page 190).
- **Low-emission steam generation:** In the future, we will increasingly rely on electrification for steam generation and hence also tap previously unused waste heat potential (see the actions on page 191).
- **Climate-smart technologies:** We are developing completely new emission-free and low-emission processes, and are assessing and piloting new technologies for more sustainable chemistry (see the actions on page 192).

<sup>8</sup> Scope 1 and Scope 2 (excluding the sale of energy to third parties). Greenhouse gases according to the Greenhouse Gas Protocol, converted into CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

<sup>9</sup> Based on the base year 2018

<sup>10</sup> The IEA's Net Zero by 2050 study reflects a scenario that, measured in accordance with the IPCC Special Report on Global Warming of 1.5°C, is consistent with a 1.5°C scenario for 2030 with a low temperature overshoot and with a 1.5°C scenario in which there is no overshoot for 2050.

<sup>11</sup> Scope 3.1, raw materials excluding battery materials, excluding services, technical goods and greenhouse gas emissions from BASF trading business. The emissions account for 52% of total Scope 3 emissions based on the 2024 business year. We adjusted the baseline in line with the TFS Guideline in the reporting year due to the availability of further primary data.

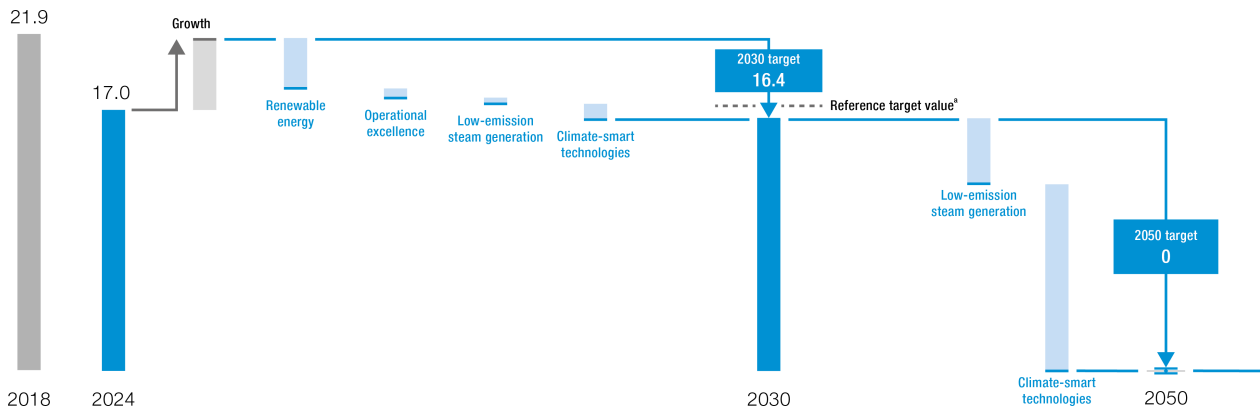
<sup>12</sup> BASF is not an undertaking that is excluded from the EU Paris-aligned Benchmarks in accordance with the exclusion criteria stated in Articles 12(1), points (d) to (g) of Commission Delegated Regulation (EU) 2020/1818 (Climate Benchmark Standards Regulation).

<sup>13</sup> No climate scenarios were used to identify the levers. Instead, the levers are based on an analysis of the sources of emissions and the technical means of reducing them.



## Transition plan for climate change mitigation

Million metric tons of CO<sub>2</sub> equivalents



<sup>a</sup> Reference target value of a 1.5°C-compliant reduction pathway

Roughly half of BASF's Scope 1 and Scope 2 emissions are attributable to energy produced to operate our plants. Scope 2 emissions can be reduced by up to 3.2 million metric tons of CO<sub>2</sub> by 2030 using the "renewable energy" lever. Additional emission reductions of up to 0.6 million metric tons of CO<sub>2</sub> (Scope 1) are possible in the period up to 2030 using the "low-emission steam generation" lever. In the long term, new steam generation technologies such as heat pumps and e-boilers not only enable emission reduction but will also enable decoupling of highly efficient steam and power generation in combined heat and power plants. The electricity generated from this today can then also be provided using renewable energy. The other half of our Scope 1 and Scope 2 emissions arise in our production processes. One way of reducing these emissions is the continuous improvement of our plants (operational excellence). We see a reduction potential of up to 0.6 million metric tons of CO<sub>2</sub> (primarily Scope 1), which we aim to achieve by 2030. Furthermore, we are working to develop and implement climate-smart technologies so as to facilitate lower-emission production. This will result in further potential reductions of up to 1.1 million metric tons of CO<sub>2</sub> (Scope 1) by 2030. Our emission reduction levers enable the reduction of growth-related CO<sub>2</sub> emissions that will be added by 2030, which are associated with organic growth and the investment in our new Verbund site in southern China. All reduction measures implemented are to be regarded as long-term. We will counteract growth-driven emission increases between 2030 and 2050 primarily using the "climate-smart technologies" and "low-emission steam generation" levers.

The transition plan reflects the market-driven transformation approach set out in our new strategy, which was published in the reporting year and in which we have adopted a step-by-step approach (see also "Strategy and governance"). In the first phase, we already succeeded in securing access to larger volumes of electricity from renewable energy and tested new, climate-smart technologies. Now, in the second phase, we are focusing on customer needs, on Scope 1 reduction actions offering specific opportunities for our business, and on securing our license to operate. At the same time, we are assessing new business models and new technologies. Major investments in scaling up climate-smart technologies will largely be made in the third phase after 2030.

For the progress made in implementing our transition plan, clustered by the relevant emission reduction levers, see "Actions" (page 189). We evaluate and prioritize specific actions for emission reduction and target achievement on an ongoing basis from an economic and technological perspective. We also continuously analyze our portfolio. Consequently, the representation in the graphic depicts the current status of our planning, but will be updated going forward. We will only consider external offsetting

measures for our Scope 1 and Scope 2 emissions<sup>14</sup> as a temporary measure in the medium term if our activities were not to make the desired contribution to reducing emissions.

As an energy- and emissions-intensive sector, the chemical industry today has a significant amount of potential locked-in greenhouse gas emissions.<sup>15</sup> This also applies to BASF and was taken into account when assessing our emission reduction levers. Since significant financial resources will be needed to transform our plants, locked-in emissions from assets jeopardize the achievement of our targets in principle. Potential locked-in emissions are factored into our investment decisions, such as the plans for our new Verbund site in southern China. From 2025 onward, the latter will be supplied exclusively with electricity from renewable sources and will serve as a model for sustainable chemical production.

Few of our products lead directly to CO<sub>2</sub> emissions during their use phase. Nevertheless, we also aim to reduce these emissions even further by constantly looking for new, more sustainable solutions (see "Product Carbon Footprints" on page [194](#)) and have already achieved significant emission reductions as a result (see the reduction in Scope 3.11 in "Actions along our value chain" on page [192](#)).

The transition plan is embedded in our financial planning and was approved by the Board of Executive Directors and the Supervisory Board. It is based on investments of around €300 million in Scope 1 measures and €250 million in renewable energies between 2025 and 2028. These are part of BASF's green transformation expenditure of €600 million each year on average.

In 2024, we invested €59 million (taxonomy-aligned capital expenditures/capex) in constructing a water electrolysis plant for producing hydrogen at our Ludwigshafen site in Germany (see the table on capital expenditures/capex in EU Taxonomy on page [263](#)).

Furthermore, we invested €149 million, which are attributable to gas-related economic activity (see the table on capital expenditures/capex in EU Taxonomy on page [263](#)). In addition to investments made to achieve our emission reduction target, we are also investing in steam generation at our Verbund site in Zhanjiang, China, which is under construction. Part of steam production there will come from a natural gas fired boiler, alongside to the future use of process waste heat steam.

BASF has not reported any taxonomy-eligible activities under the climate change adaptation objective. This is firstly to avoid double counting with economic activities that have already been included under the climate change mitigation objective. Secondly, in accordance with the notice issued by the European Commission, a prerequisite for taxonomy eligibility under the adaptation objective is the submission of an investment plan for implementing adaptation solutions; such a plan within the meaning of the Taxonomy Regulation has not been submitted to BASF. In addition, BASF does not have any other targets or plans with which it could adapt its economic activities to the criteria set out in Delegated Regulation (EU) 2021/2139. For information on activities under the climate change mitigation environmental objective, see the EU Taxonomy chapter (on page [257](#)).

<sup>14</sup> Scope 1 and Scope 2 (excluding the sale of energy to third parties). The emissions account for 96% of total Scope 1 and Scope 2 emissions in relation to the base year. Greenhouse gases according to the Greenhouse Gas Protocol, converted into CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

<sup>15</sup> These are future greenhouse gas emissions that are likely to be caused by key assets or products within their operating lifetimes.

## E1-2

We are focusing on **procurement-specific actions** to reduce our raw materials-related emissions (Scope 3.1) and are working closely together with our suppliers (see “Actions along our value chain” on page 192). In recent years, we have been able to considerably increase the data availability and thereby the transparency of our raw materials-related emissions, and aim to steer these more precisely via our resulting Scope 3.1 target.

What is more, we are taking responsibility for our other emissions along the value chain (see page 192). Reducing Scope 3 emissions – which account for the majority of our total emissions – presents us with particular challenges, as these are only partly within our own direct sphere of influence and are influenced by a large number of external factors.

We are also increasingly focusing on circularity in the form of renewable and recycled raw materials and raw materials based on the use of CO<sub>2</sub> in order to move from linear value creation to closed-loop material cycles (see page 247). In future, we will drive forward sourcing of renewable raw materials and deploy a make and buy approach similar to that with which we source renewable energy. Feeding in greater amounts of bio-based and recycled raw materials in our existing plants will allow us to leverage the unique strengths of our Verbund and to offer our customers products with lower Product Carbon Footprints (PCFs).

We use a digital solution that continuously determines the PCFs for more than 40,000 sales products<sup>16</sup> (see “Product Carbon Footprints”) to increase transparency about our product-specific greenhouse gas emissions and focus CO<sub>2</sub> reduction measures on those areas where they bring the greatest added value. These PCFs include all greenhouse gas emissions – from raw materials extraction to the finished product leaving the factory gates (“cradle-to-gate”). This lets our customers benefit from lower CO<sub>2</sub> emissions in the value chain. In addition, we offer our customers solutions that help prevent greenhouse gas emissions and improve energy and resource efficiency.

Moreover, our TripleS method, which steers the sustainability performance of our product portfolio, is a material element in the process of enhancing transformation topics relating to climate change, energy, resource efficiency and the circular economy (for more information, see page 161). In addition to implementing new regulatory requirements, we are actively driving forward the adaptation and development of new production processes with the aim of reducing the environmental footprint of our products. Criteria for reducing CO<sub>2</sub> emissions are a key part of the evaluation process. Products with sustainability concerns are identified and, in the case of severe challenges, action plans are developed to optimize them or replace them with alternative solutions.

» For more information on TripleS, see [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering)

All parts of society must work together to effectively protect the climate. The basis is a political and regulatory environment that promotes innovation in climate change mitigation, makes it possible to develop new processes that are competitive internationally and resolutely drives forward the expansion of renewable energies. Our aim is to work together to shape the transformation toward climate neutrality in a socially just manner (just transition). We include the viewpoints of our external stakeholders in our decisions and actions using dialog forums and advisory bodies such as the Nature Advisory Council, which we established together with external experts (for more information, see page 309) and the Sustainability Lab stakeholder engagement format (for more information, see page 166).

<sup>16</sup> This includes all BASF products of all A companies and some selected B companies, excluding traded goods. For more information on the Group's legal structure, see page 14.

In addition, we support various national and international initiatives and are involved in partnerships. For example, we engaged in close dialog with the Science Based Targets initiative (SBTi) to derive science-based climate protection targets for the chemical sector.

» For more information on climate protection, see [basf.com/climate\\_protection](https://basf.com/climate_protection)

We are committed to reporting transparently on our climate protection targets and progress, as well as on the impact of climate change on BASF. In this context, we support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We have also participated in the program established by the international nonprofit organization CDP for reporting on data relevant to climate protection since 2004. The final CDP assessment on climate protection for 2024 was not yet available up to the editorial deadline for the BASF Report 2024.

» For more information on the CDP climate change questionnaire, see [basf.com/en/cdp](https://basf.com/en/cdp)

## Actions

### E1-3

We consistently align our actions with our climate protection targets, based on a comprehensive analysis of our emissions. The transformation of our company toward low-emission chemistry is closely linked to our customers' transformation. Our key customer industries are facing enormous challenges in reaching their sustainability-related goals. We supply the chemical products supporting them in this. At the same time, the preconditions for business cases at scale do not yet fully exist. The market readiness, and hence also the speed of green transformation, varies widely between regions and customer industries. Against this background, we are focusing our transformation approach even more single-mindedly on development and on the needs of our various customer markets, which will allow us to concentrate even more strongly on our specific business opportunities. We will prioritize projects for which we see growing customer demand and willingness to pay for low-emission and emission-free solutions. As the markets for sustainable products grow, we will be in a position to finance necessary investments in new production technologies. Equally, we will need qualified staff and service providers to develop, implement and maintain these technologies.

In 2024, we invested €59 million (taxonomy-aligned investments/capex) in constructing a water electrolysis plant for producing hydrogen at our Ludwigshafen site in Germany (see the table on capital expenditures/capex in EU Taxonomy on page [263](#)). In addition, no significant capital and operating expenses within the meaning of the EU taxonomy were incurred in the business year 2024 for the actions described.

### Renewable energy

Roughly half of our Scope 1 and Scope 2 emissions are attributable to our plants' energy demand. A core component is therefore converting our energy supply from fossil to renewable sources; this applies especially with regard to our electricity supply. In 2024, electricity from renewable sources as a share of total electricity consumption rose further compared with the previous year to 26% (2023: 20%). Our electricity consumption will increase significantly in future due to the planned gradual electrification of our steam generation and the switch from natural gas-based to electricity-based, low-emission production processes. Nevertheless, we aim to source more than 60% of our power needs from renewable sources by 2030.

As regards the transformation of our power supply, we are pursuing a make and buy approach in the short, medium and long term. Firstly, BASF is investing in its own renewable power assets. Secondly, we are focusing on purchasing green power on the market through long-term supply agreements with plant operators, green power purchase agreements or renewable energy certificates, depending on the region and market regulations. Profitability and additionally are key purchasing criteria. The electricity purchased here is primarily sourced from new renewable energy facilities.

In 2024, we successfully advanced our plan for sourcing power from renewable sources. The Hollandse Kust Zuid offshore wind farm, a joint project with Vattenfall and Allianz, was commissioned successively and has been fully operational since the summer of 2024. With 139 turbines and a capacity of 1.5 gigawatts, it is one of the largest subsidy-free offshore wind farms in the world. As part of a further project, we have contractually agreed with Vattenfall to purchase 49% of the shares in the Nordlicht 1 and 2 offshore wind farms. Construction is due to start in 2026, subject to the final investment decision, expected in 2025. The wind farms, which have a total capacity of 1.6 gigawatts, are being built without government subsidies and should be fully operational in 2028. We plan to use just under half of the electricity generated by these two wind farms to supply our production sites in Europe, and particularly Ludwigshafen, Germany. In order to be able to fully supply our Verbund site in Zhanjiang in southern China, which is currently under construction, with electricity from renewable sources in the future, we have entered into a joint venture with Mingyang for an offshore wind farm in southern China, which includes development, construction and operation. The planned wind farm in Zhanjiang in the Chinese province of Guangdong will have a capacity of 500 megawatts and is scheduled to go into operation at the end of 2025, subject to approval.

From the beginning of 2025, our new site in Zhanjiang will be supplied with 100% electricity from renewable sources as a result of a supply agreement with the State Power Investment Corporation (SPIC). In addition to the long-term supply agreement with the SPIC, we have entered into a supply agreement with China Energy Engineering Group Guangdong Electric Power Design Institute (GEDI) to source electricity from renewable sources over a period of 25 years. In 2023 and 2024, we also signed further long-term supply agreements for green power at other sites in Asia, such as our three sites in Jiangsu, China, and six production sites in South Korea. In North America, we were able to secure around 150 megawatts<sup>17</sup> of solar generation capacity through virtual power purchase agreements back in 2022. These solar power plants are already operational. Further long-term supply contracts exist with X-ELIO, providing capacity of 48 megawatts of solar power to supply the Freeport, Texas, site and with other developers, providing 33 megawatts of solar power for the Freeport site and more than 35 megawatts of wind energy for the Freeport and Pasadena sites in Texas. In some regions, we have also acquired green power certificates. The aim is to gradually replace these temporary measures with our own power assets or long-term supply agreements.

The carbon footprint of purchased electricity in 2024 was around 0.20 metric tons of CO<sub>2</sub> per MWh (market-based approach). For the 2024 business year, we were able to reduce our greenhouse gas emissions by around 1 million metric tons of CO<sub>2</sub> by using electricity from renewable sources (for more information on the expected emission reductions, see our transition plan on page [186](#)).

In 2024, we started operation of a stationary long-term sodium sulfur-based battery storage system (NAS<sup>®</sup>) at our Schwarzheide site in Germany, driving forward integration of renewable energy. The system supports the provision of power to individual plants from the site's own solar park. BASF Stationary Energy Storage GmbH markets the NAS batteries, which were developed by NGK INSULATORS Ltd.

### Operational excellence

Through our operational excellence projects, we aim to make our plants and processes even more efficient and resource saving, thereby preventing CO<sub>2</sub> emissions. Certified energy management systems

<sup>17</sup> Adjustment of the capacity published in the BASF Report 2023 due to project-related changes

according to DIN EN ISO 50001 at all relevant production sites play a particularly important role here.<sup>18</sup> These help us to continuously identify and implement potential for improvement in energy efficiency. This not only reduces greenhouse gas emissions and saves valuable energy resources but also increases our competitiveness.

In 2024, we implemented more than 450 measures to reduce energy and resource consumption and increase our competitiveness, which led to a reduction in emissions of around 200,000 metric tons of CO<sub>2</sub> (for more information on the expected emission reductions, see our transition plan on page 186). For example, optimizing process technology and energy usage at several plants at our Antwerp, Belgium, site has enabled us to prevent more than 45,000 metric tons of CO<sub>2</sub> emissions per year. This includes measures to reduce natural gas, hydrogen and steam consumption as well as more effective catalytic reduction of nitrous oxide. Enhanced heat integration with additional heat exchangers at a plant at our site in Yeosu, South Korea, led to a reduction of 9,000 metric tons CO<sub>2</sub> per year. Our site in Camaçari, Brazil, reduced its natural gas consumption of the waste heat boiler and safety flares by optimizing controls, cutting CO<sub>2</sub> emissions by more than 5,000 metric tons per year.

### Low-emission steam generation

Alongside electricity, steam generation is an important component of our energy supply. In the medium to long term, new technologies should make a significant contribution to reducing CO<sub>2</sub>, for example by recovering energy from waste heat in our production and infrastructure facilities. In this context, we are examining various concepts such as using electric heat pumps and e-boilers as well as electrifying steam drives. We made initial progress toward low-emission steam generation in the reporting year: In 2024, BASF received funding approval from the German Federal Ministry for Economic Affairs and Climate Action for constructing the world's largest industrial heat pump, permitting emission-free steam generation at its site in Ludwigshafen, Germany. The planned heat pump will have a capacity of up to 500,000 metric tons of steam per year. The waste heat, which is used as a thermal energy source, is generated during the cooling and cleaning of process gases in one of the two steam crackers at the site. Emission-free steam is generated using electricity from renewable sources and will primarily be used for producing formic acid. This offers the potential to use the heat pump to reduce greenhouse gas emissions produced by up to 98%. A smaller proportion of the emission-free steam is supplied to other BASF production plants via the steam network at the site. In total, the heat pump, which is scheduled to start operations in 2027, will reduce up to 100,000 metric tons of CO<sub>2</sub> per year at the company's headquarters.

In addition, we are examining the use of geothermal energy at our site in Ludwigshafen, Germany, as part of a strategic partnership with Vulcan Energy. Our partner has been performing initial seismic measurements in the Upper Rhine Graben since early 2025. Assuming a successful outcome to exploration in the Upper Rhine Graben, heat pumps could harness the geothermal energy to generate emission-free steam. With a potential output of 300 megawatts of thermal energy, around 4 million metric tons of this crucial energy carrier for the chemical industry could be produced per year. This would prevent roughly 800,000 metric tons of CO<sub>2</sub> emissions.

We are also focusing on low-emission steam generation at our site in Schwarzheide, Germany. The goal there is to construct and operate a power-to-heat plant together with transmission systems operator 50Hertz. The plant will convert electricity from renewable sources into process heat. The planned plant consists of a 25-megawatt electrode boiler and is scheduled to commence operations at the end of 2026.

<sup>18</sup> Relevant sites are selected based on the amount of primary energy used and local energy prices.



## Climate-smart technologies

To further abate CO<sub>2</sub> emissions, we are also developing completely new technologies for emission-free and low-emission production and are planning to scale them as far as possible from 2030 onward. These technologies will need large volumes of electricity from renewable sources in order to realize their full potential. The main focus here is on basic chemicals, which are often still emissions-intensive to produce. This is the case with steam crackers, for example, which use large amounts of energy to break down crude petroleum into olefins and aromatics – both important groups of substances for numerous chemical value chains. The cracking reaction requires high temperatures of around 850°C, which until now have been achieved by burning natural gas. Heating concepts using electricity from renewable sources could reduce process-related emissions by at least 90% in future compared to today's conventional technologies. In 2024, together with our partners SABIC and Linde, we commissioned a demonstration plant for electrically heated steam cracker furnaces at our site in Ludwigshafen, Germany.<sup>19</sup> This is where we are testing this new process, and associated direct and indirect heating concepts, on an industrial scale. The prototype is completely integrated into one of the two existing steam crackers at the site.

Another important basic material in the chemical industry is hydrogen, which we have so far mainly used as a raw material. One common but emissions-intensive way of obtaining hydrogen is steam reforming. We are testing an alternative process – methane pyrolysis – in Ludwigshafen, Germany. This process is virtually emission-free if renewable energy is used and requires considerably less electricity compared with other methods such as water electrolysis. We successfully tested a new reactor concept at the test plant, which was commissioned in 2021, and demonstrated stable operations. This has overcome the first important technical hurdle for further scaling. We also continued construction of a PEM<sup>20</sup> (proton exchange membrane) water electrolyzer with a capacity of 54 megawatts at the Ludwigshafen site in Germany with Siemens Energy. The plant went into operation in March 2025. Powered by electricity from renewable energy sources, the electrolyzer produces up to 8,000 metric tons of emission-free hydrogen and thus reduces greenhouse gas emissions at the site by up to 72,000 metric tons per year. BASF will primarily use the hydrogen produced as a raw material for the manufacture of products with a reduced Product Carbon Footprint. We also agreed a partnership with Envision Energy, a leading provider of sustainable technologies, at the beginning of 2024. The objective is to drive forward the conversion of green hydrogen and CO<sub>2</sub> into e-methanol, a more sustainable energy source. BASF is contributing its catalyst technologies expertise. In addition, we are expecting new hydrogen applications to emerge in the future, such as its use as an independent or a basic material for sustainable energy carriers, and that demand for hydrogen is likely to increase as a result. Access to large quantities of low-emission or emission-free hydrogen at competitive costs is therefore becoming increasingly important for BASF.

Another focus area of our technological development is carbon capture and storage (CCS). Together with partners, we are examining an industrial CCS project at the Antwerp site in Belgium (Kairos@C) as the first phase of the Antwerp@C project, which could enable BASF to prevent the release of emissions from production of up to 1 million metric tons of CO<sub>2</sub> into the atmosphere every year.

## Actions along our value chain

As part of our supplier management, we continuously review compliance with our required criteria when selecting suppliers and assessing new and existing supplier relationships. We urge our suppliers to reduce CO<sub>2</sub> emissions. We arrange for third parties to evaluate suppliers with a high sustainability risk using either on-site audits or sustainability assessments by rating agency EcoVadis. Supplier assessment is mainly performed as part of the chemical industry's Together for Sustainability initiative. Depending on

<sup>19</sup> The project has been granted €14.8 million from Germany's Federal Ministry for Economic Affairs and Climate Action (BMWK) under the Decarbonization in Industry funding program. It is also being financed by the European Union via the NextGenerationEU fund.

<sup>20</sup> The project is funded by Germany's Federal Ministry for Economic Affairs and Climate Action (BMWK) and the Federal State of Rhineland-Palatinate.

business requirements, we perform our own Responsible Care audits at selected contract manufacturers if material risks have been identified with respect to environmental protection. This also covers the topic of CO<sub>2</sub> emissions.

We launched the Supplier CO<sub>2</sub> Management Program in 2021 to achieve transparency with respect to our raw materials-related emissions. The goal is to obtain a more accurate data base and to better manage and reduce emissions in the supply chain. In a first step, we have requested the Product Carbon Footprints (PCFs) of our raw materials since then and support our suppliers in determining these, for example, by sharing our knowledge of assessment and calculation methods with them. Since the start of the program, we have asked more than 1,900 suppliers, accounting for around 80% of our raw materials-related greenhouse gas emissions. After around three years, we have validated PCFs for more than 1,700 of our raw materials. This corresponds to a coverage of almost 30% in relation to the greenhouse gas emissions of our raw materials. We are working to further enhance the transparency of the PCFs for our raw materials.

In addition, we launched the next phase of our Supplier CO<sub>2</sub> Management Program in 2024, so as to agree PCF reduction pathways with our suppliers. We use dialog forums to exchange with suppliers about opportunities, challenges and BASF's specific expectations regarding PCF reductions. One example are the BASF Supplier Days that were held on the topic of Scope 3.1 emissions for the first time in 2024 in Ludwigshafen, Germany (Europe Region) and São Paulo, Brazil (South America Region). The format is to be rolled out to regions Asia Pacific and North America as well in 2025. We are also enhancing our purchasing processes and establishing PCFs as a relevant criterion for raw materials in the procurement requirement.

To replace fossil raw materials, we signed a long-term purchase contract for certified biomethane with ENGIE in 2024. This will be used at our Verbund sites in Antwerp, Belgium, and Ludwigshafen, Germany. Consequently, we will be able to reduce the carbon footprint of sales products in sectors such as the automotive, packaging and detergent industries using our mass balance approach (see page [250](#)). In another project, we have agreed an innovative approach to reducing the carbon footprint of the products from Graphit Kropfmühl, a subsidiary of AMG Critical Materials N.V. We supply the company with Guarantees of Origins for electricity from renewable sources, reducing the PCF of the graphite produced. We then use the graphite as a raw material for a reduced-PCF variant of our insulation material Neopor®.

In addition to reducing our raw materials-related emissions (Scope 3.1), we are taking targeted measures to reduce Scope 3 emissions along the entire value chain. To reduce the emissions from transporting our products (Scope 3.9), the Monomers division has developed a shipment emissions dashboard that enables us to share standardized, reliable data on shipment-related emissions with our customers and identify the most sustainable means of transportation. Moreover, we rely on product adaptations to reduce emissions from the use of sold products (Scope 3.11): For example, climate-damaging blowing agents for foaming polyurethane foams can now be largely dispensed within the downstream value chain. Thanks to these and other measures, we have been able to reduce our emissions from the use of sold products (Scope 3.11) by around 73% since 2018.<sup>21</sup> We also want to reduce emissions resulting from the disposal of our products (Scope 3.12). This can be done, for example, through the increased use of renewable raw materials or circular solutions (see page [247](#)). Both ensure that less and less CO<sub>2</sub> pollutes the atmosphere throughout the life cycle of our products.

<sup>21</sup> BASF operations without oil and gas business

## Product Carbon Footprints

In 2024, we further expanded our portfolio of products with a certified reduced carbon footprint. These include ammonia and urea products and the intermediate butanediol, which our customers process in the manufacture of textile fibers, solvents and engineering plastics. Since the end of 2024, we are offering our customers bio-based and biomass balance-based ethyl acrylate – a more sustainable alternative for use in manufacturing adhesives and coatings, among other things. We already offer net-zero carbon footprint versions of some of our products; these include the polyamide Ultramid® and AdBlue®, an exhaust gas reducing agent for diesel engines, which we offer as Ultramid® ZeroPCF and AdBlue® ZeroPCF by BASF. These lower PCFs are primarily made possible by the substitution of fossil raw materials. For example, we use partially or fully renewable, waste-based or recycled raw materials to produce low PCF and zero PCF products. These include castor oil, biomethane or pyrolysis oil from plastic waste. These alternative resources often have a lower carbon footprint compared with fossil raw materials. The alternative resources are allocated to the end product using the mass balance approach (see page 250). Furthermore, we use electricity from renewable sources to reduce our PCFs.

The digital methodology we have developed to calculate PCFs meets general life cycle analysis standards such as ISO 14040, ISO 14044 and ISO 14067, as well as the Greenhouse Gas Protocol Product Standard. A certification from TÜV Rheinland confirms that our calculation method and reporting fully comply with the requirements of Together for Sustainability (TfS). We make our automated PCF calculation approach available to interested industry players through partnerships. At the same time, we are involved in various initiatives to drive transparency, harmonization and standardization across the industry. This also takes place as part of TfS, where we have been involved in the creation and revision of a uniform guideline for calculating the carbon footprint of products in the chemical industry. This enables the climate impact of products to be directly compared and evaluated based on a standardized approach. Harmonizing the approaches used to calculate PCFs allows us to better steer greenhouse gas emissions that arise during the extraction of raw materials or the manufacture of precursors. A digital solution developed by TfS and Siemens for sharing PCF data between companies was launched in October 2024. We have been migrating our queries to this solution since the end of 2024. Equally, it has been possible to share data within the Catena-X network, in which we work together with partners in the automotive value chain, since 2024.

» For more information on Product Carbon Footprints, see [basf.com/en/pcf](https://basf.com/en/pcf)

## Global targets

E1-4

As an energy-intensive company that generates and consumes energy in the form of electricity and steam and that processes fossil raw materials, we are responsible for greenhouse gas emissions that negatively impact the climate (see also “Impacts, risks and opportunities from our business activities” from page 181 onward). We accept this responsibility and are pursuing ambitious climate protection targets.<sup>22</sup>

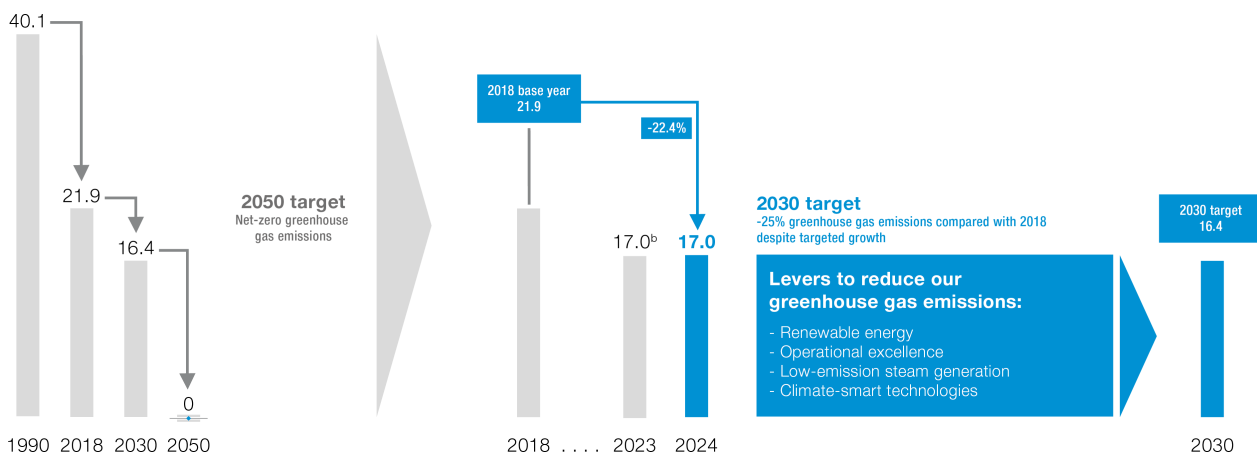
<sup>22</sup> We report on greenhouse gas emissions in accordance with the Greenhouse Gas Protocol Standard as well as the sector-specific standard for the chemical industry. Our targets include future organic growth and investments. They are based on the scope of consolidation using the financial control method and are audited in the context of the annual report. For information on compatibility with the 1.5°C scenario, see page 185.

## Scope 1 and 2

Based on the 2018 base year, we want to achieve a 25% reduction in greenhouse gas emissions from our production processes (Scope 1) and our energy purchases (Scope 2) by 2030.<sup>23</sup> Our target focuses on emissions caused by our production and includes 96% of our gross Scope 1 emissions and 99% of our gross Scope 2 emissions. This means that we aim to reduce greenhouse gas emissions from 21.9 million metric tons to 16.4 million metric tons – despite our growth plans and the construction of a new Verbund site in southern China. This corresponds to a decrease of around 60% compared with 1990. Our long-term target is to achieve net-zero greenhouse gas emissions by 2050.<sup>23</sup> We consider future developments in our Scope 1 and Scope 2 emissions in line with the requirements of the Greenhouse Gas Protocol. When recalculating the emissions from the base year, we have set ourselves a limit of 5% cumulative deviations from the base year.

### Greenhouse gas emissions of the BASF Group (Scope 1 and 2)<sup>a</sup>

Million metric tons of CO<sub>2</sub> equivalents



<sup>a</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).

<sup>b</sup> The figure for 2023 has been adjusted to reflect updated data.

In 2024, the BASF Group's emissions from production and energy purchases<sup>23</sup> amounted to 17.0 million metric tons of CO<sub>2</sub> equivalents (2023: 17.0 million metric tons of CO<sub>2</sub> equivalents<sup>24</sup>). The slight rise in demand year on year lifted production volumes and thus resulted in higher CO<sub>2</sub> emissions. At the same time, we increased the share of electricity from renewable sources compared with the previous year to 26% and, together with measures to increase energy and process efficiency, made a relevant contribution to reducing emissions. All in all, we have reduced our greenhouse gas emissions in BASF's operations by 58% since 1990.

## Scope 3.1

We set ourselves an ambitious Scope 3.1 target<sup>25</sup> for our specific raw materials-related emissions in 2023. This includes around 92% of our Scope 3.1 emissions based on the base year. By 2030, we want to reduce these in relation to the purchasing volume specifically by 15% from the 2022 base year. Consequently, we are planning to reduce our specific Scope 3.1 emissions from 1.64 kilograms of CO<sub>2</sub> per kilogram of raw materials purchased in the base year 2022 to 1.39 kilograms in the target year 2030.<sup>25</sup> Through our commitment, we aim to keep our target-relevant Scope 3.1 emissions roughly

<sup>23</sup> Scope 1 and Scope 2 (excluding the sale of energy to third parties). The emissions account for 96% of total Scope 1 and Scope 2 emissions in relation to the base year. 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). Scope 2 emissions are calculated using the market-based approach in accordance with the Greenhouse Gas Protocol. Based on the aforementioned emission reduction levers, we assume a reduction in Scope 1 emissions of around 14% between 2018 and 2030. We aim to reduce Scope 2 emissions by around 75% in the same period. The target is aligned with limiting global warming to a global average of 1.5°C, and is thus science-based. It has not been externally audited.

<sup>24</sup> The figure for 2023 has been adjusted to reflect updated data.

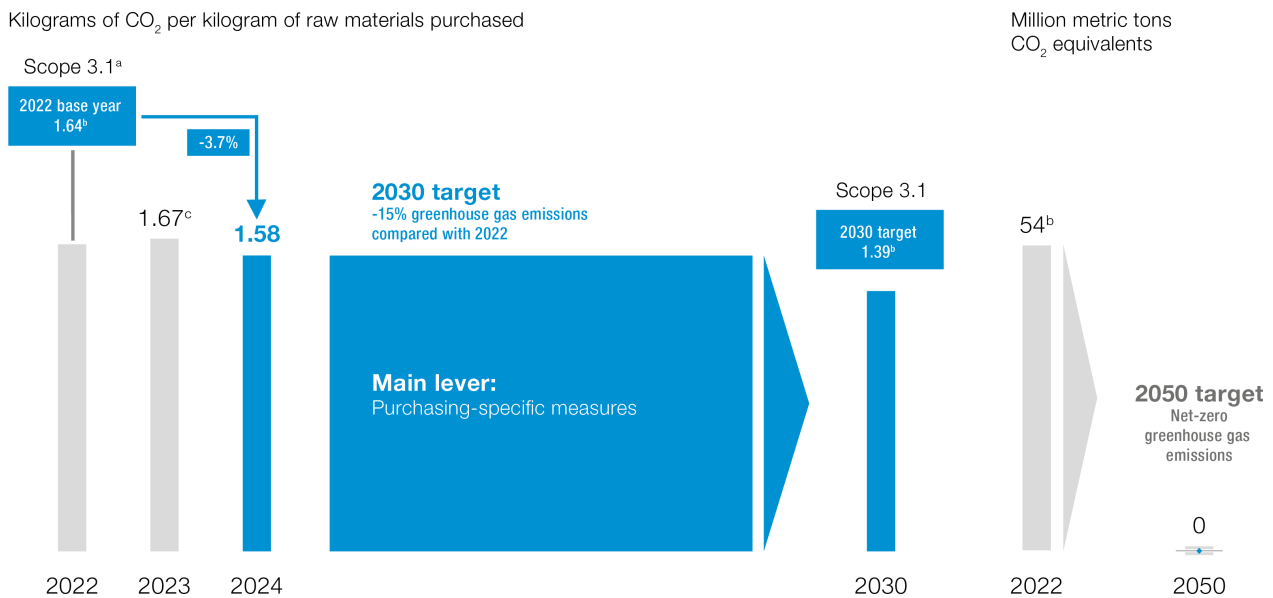
<sup>25</sup> Scope 3.1, gross emissions from raw materials excluding battery materials, excluding services, technical goods and greenhouse gas emissions from BASF trading business. The emissions account for 52% of total Scope 3 emissions based on the 2024 business year. The target is not science-based and has not been externally audited. We adjusted the baseline in line with the TFS Guideline in the reporting year due to the availability of further primary data.

constant at 50 million metric tons of CO<sub>2</sub> equivalents by 2030 despite growing production. We have recalculated our base value for our Scope 3.1 target in line with the Greenhouse Gas Protocol Scope 3 Standard, due to a change in secondary data and to the ongoing improvement in primary data availability under our Supplier CO<sub>2</sub> Management Program (see "Actions along our value chain" on page 192). This preserves comparability between the base year and current business years.

Raw materials-related emissions from battery materials are initially excluded from the target. Battery materials make a significant contribution to reducing CO<sub>2</sub> emissions and thus facilitate the transformation of the transportation sector. Required raw materials such as lithium, nickel and cobalt will not be able to be replaced by more sustainable alternatives in the foreseeable future. Accordingly, associated emissions cannot be reduced significantly in the short term. As soon as recyclable solutions come into play with the increase in available end-of-life batteries, we will include these raw materials in our target definition (for more information on our battery recycling activities, see page 254).

In the long term, we are striving to reduce Scope 3.1 emissions to an unavoidable minimum by 2050, thereby expanding our long-term net-zero target to include these greenhouse gas emissions.

### Greenhouse gas emissions of the BASF Group (Scope 3.1)



<sup>a</sup> Scope 3.1, raw materials excluding battery materials, excluding services, technical goods and greenhouse gas emissions from BASF trading business

<sup>b</sup> We adjusted the baseline in line with the TFS Guideline in the reporting year due to the availability of further primary data.

<sup>c</sup> The value for 2023 was adjusted due to increased data availability.

In 2024, specific Scope 3.1 emissions<sup>26</sup> amounted to 1.58 kilograms of CO<sub>2</sub> per kilogram of raw materials purchased (2023: 1.67 kilograms<sup>27</sup>). The reduction in specific emissions is mainly attributable to a change in the raw materials portfolio. In addition, first raw materials were purchased from suppliers who offer these with a lower PCF.

We monitor progress toward our targets annually as part of our strategic controlling activities.

For an overview of our greenhouse gas emissions – broken down by operational control and financial control – see page 200. Our projection of target-relevant Scope 1 and Scope 2 emissions for 2025 can be found in the forecast on page 82 onward.

<sup>26</sup> Scope 3.1, raw materials excluding battery materials, excluding services, technical goods and greenhouse gas emissions from BASF trading business. The emissions account for 52% of total Scope 3 emissions based on the 2024 business year. We adjusted the baseline in line with the TFS Guideline in the reporting year due to the availability of further primary data.

<sup>27</sup> The value for 2023 was adjusted due to increased data availability.

Target setting was preceded by an analysis of expected business developments, external requirements relating to emission reduction targets and internal implementation opportunities, including the use of pilot plants to develop technical solutions. In addition, cost estimates were developed for planned actions. A Supplier CO<sub>2</sub> Management Program was established and support was provided for the development of standards such as TfS before the Scope 3.1 target was introduced. This approach was designed to ensure that the targets were not only ambitious but also implementable. We discuss the sustainability topics that are material for BASF at regular meetings with external stakeholders forming part of our strategic stakeholder engagement activities, and in discussions with investors. In this way, stakeholder expectations are continuously taken into account in the development of strategic sustainability management approaches, targets and principles.

### Carbon credits

#### E1-7

As part of the above stated targets, we have committed to reducing our Scope 1, 2 and 3.1 emissions to net zero by 2050. Despite all our efforts, we expect there to be a residual share of emissions in 2050 that cannot be abated using technical or economic approaches. We are aiming to offset all remaining emissions by 2050 inclusive through high-quality, high-credibility nature-based and technical measures, such as the sequestration of CO<sub>2</sub> into the soil through farming (carbon farming). We are planning to use ratings such as BeZero and Sylvera, and initiatives such as the Integrity Council for the Voluntary Carbon Market (ICVCM), its Core Carbon Principles and carbon credits assessed using them. At the same time, we are developing internal standards for evaluating projects and considering whether to develop our own projects. We are also evaluating using/developing a project under the European Carbon Removal and Carbon Farming Certification Framework (CRCF). In view of this situation, we will likely use a portfolio of different credits, and will rely on well-known standards such as Verra and Gold Standard, but also credits under Article 6 of the Paris Agreement and the CRCF. BASF did not use any carbon credits in the past business year.



## Metrics

### Energy supply

E1-5

Our total energy consumption<sup>28</sup> amounted to 75.6 million MWh in 2024. Total energy consumption includes fuel demand for our own energy generation and production plants, plus power and steam imports for our own use.

#### BASF Group's energy consumption and mix

Million MWh	2024	
	Financial control	Operational control
<b>Total energy consumption</b>	75.6	74.8
Fuel consumption from renewable sources (biomass)	0.0	0.0
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources	3.6	3.6
Consumption of self-generated nonfuel renewable energy	0.0	0.0
<b>Total energy consumption from renewable sources</b>	<b>3.6</b>	<b>3.6</b>
Share of renewable sources in total energy consumption	%	4.8
Fuel consumption from coal and coal products	1.1	1.1
Fuel consumption from crude oil and petroleum products	0.3	0.3
Fuel consumption from natural gas	33.7	33.0
Fuel consumption from other fossil sources <sup>a</sup>	27.7	27.5
Consumption of purchased or acquired electricity, heat, steam, or cooling from fossil sources	9.0	9.3
<b>Total energy consumption from fossil sources</b>	<b>71.9</b>	<b>71.2</b>
Share of fossil sources in total energy consumption	%	95.2
<b>Total energy consumption from nuclear sources<sup>b</sup></b>	<b>0.0</b>	<b>0.0</b>
Share of nuclear sources in total energy consumption	%	0.0
Energy production from renewable sources	0.0	0.0
Energy production from fossil sources	43.8	43.0
<b>Energy intensity (total energy consumption per sales revenue)<sup>c</sup></b>	million MWh/ billion €	<b>1.16</b>
		<b>1.15</b>

<sup>a</sup> Residues from chemical production plants that cannot be reused in the BASF Verbund.

<sup>b</sup> Only contracts aimed at the use of nuclear energy are included.

<sup>c</sup> Energy intensity is determined on the basis of the "manufacturing" high climate impact sector. The sales revenue from high climate impact sectors corresponds to the sales revenue in the report on the Results of Operations (see page 46).

The generation of our own steam and power in highly efficient and predominately natural gas-based combined heat and power plants and our Verbund system are key to CO<sub>2</sub>-optimized energy supply at our sites. In the latter, waste heat generated during one plant's production process is used as energy in other plants. Thanks to combined heat and power generation and our continuously optimized Energy Verbund, we were able to prevent a total of 6.1 million metric tons of CO<sub>2</sub> emissions<sup>29</sup> in 2024 compared with separate, fossil-based power and steam generation without the use of the Verbund system.

<sup>28</sup> Consolidation by financial control; adjusted to include by-product streams that are used as energy sources in the process plants compared with the prior-year figure

<sup>29</sup> Calculation basis: electricity conversion efficiency of conventional power plants 45%; steam generation efficiency 90%

## Corporate carbon footprint

E1-6

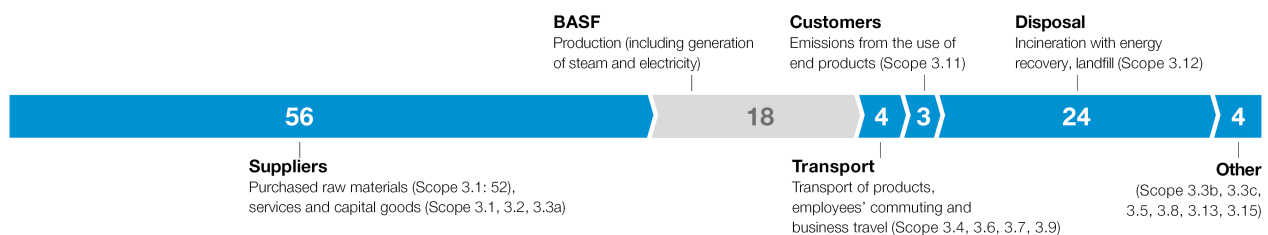
BASF has published a comprehensive corporate carbon footprint every year since 2008. This reports on all emissions along the value chain – from raw materials extraction to production and disposal. We are continually working to reduce greenhouse gas emissions both in our own production and, together with our partners, along the value chain (see “Strategy and governance”).

In 2024, our greenhouse gas emissions according to the Greenhouse Gas Protocol including Scope 1 and Scope 2 emissions<sup>30</sup> amounted to 17.948 million metric tons of CO<sub>2</sub> equivalents (2023: 17.902 million metric tons of CO<sub>2</sub> equivalents<sup>31</sup>). Of this amount, 87% were Scope 1 emissions (2023: 87%) and 13% were Scope 2 emissions (2023: 13%). Carbon dioxide was by far the largest component and accounted for 98% of emissions (2023: 98%).

Scope 3 emissions arising upstream and downstream of our operations in the value chain are calculated in accordance with the Corporate Value Chain (Scope 3) Accounting and Reporting Standard published by the Greenhouse Gas Protocol and the WBCSD Guidance for Accounting and Reporting Corporate GHG Emissions in the Chemical Sector Value Chain (WBCSD Chemicals). For 2024, we calculated Scope 3 emissions of around 92 million metric tons of CO<sub>2</sub> equivalents.<sup>32</sup> There was an increase in total emissions along the BASF value chain in 2024 due to the slight year-on-year increase in production volumes. The share of emissions that were calculated using primary data<sup>33</sup> amounted to 21% in the business year.

### CO<sub>2</sub> emissions along the BASF value chain in 2024<sup>a</sup>

Million metric tons of CO<sub>2</sub> equivalents



<sup>a</sup> According to the Greenhouse Gas Protocol Standard; Scope 1, 2 and 3; reported categories within Scope 3 are shown in parentheses. Scope 3 emissions in category 10 (“Processing of sold products”) are not reported according to the standard for the chemical sector. Only direct use phase emissions are reported in the customer category (Scope 3.11). Excluding greenhouse gas emissions from BASF trading business.

The largest contribution to emissions along the value chain in 2024 was in category 3.1 (purchased raw materials and technical goods and services) at 52 million metric tons of CO<sub>2</sub> equivalents.<sup>32</sup> To calculate these upstream greenhouse gas emissions, we use both primary data from our suppliers from the Supplier CO<sub>2</sub> Management Program (see page 193) and industrial averages and values from external databases.<sup>34</sup> Apart from raw materials-related emissions, the disposal of our products (Scope 3.12) accounts for the second-largest share of our Scope 3 emissions at around 24 million metric tons of CO<sub>2</sub> equivalents.

» For additional information on our emissions reporting, see [basf.com/corporate\\_carbon\\_footprint](https://basf.com/corporate_carbon_footprint)

» For more information on the Supplier CO<sub>2</sub> Management Program, see [basf.com/suppliers](https://basf.com/suppliers)

<sup>30</sup> Market-based approach, including sale of energy to third parties

<sup>31</sup> The figure for 2023 has been adjusted to reflect updated data.

<sup>32</sup> In 2024, we adjusted the calculation of Scope 3 emissions in category 3.1 due to increased availability of primary and secondary data. For additional information on the calculation method, see [basf.com/corporate\\_carbon\\_footprint](https://basf.com/corporate_carbon_footprint).

<sup>33</sup> Primary data in this case is data provided directly by our partners in the value chain.

<sup>34</sup> The database values are updated on an annual basis. Significant changes in these values are reflected accordingly in our calculations.

## BASF Group's greenhouse gas emissions according to the Greenhouse Gas Protocol

Million metric tons of CO <sub>2</sub> equivalents	Retrospective						Milestones and target years				
	2024		2023		Difference 2024/2023		Base year	2025	2030	2050	Reduction each year on average
	Financial control	Operational control	Financial control	Operational control	Financial control	Operational control	Financial control	Financial control	Financial control	Financial control	
<b>Scope 1<sup>a</sup></b>							2018				
CO <sub>2</sub> (carbon dioxide)	14.402	14.202	14.345	–	0%	–	17.025	–	–	–	–
N <sub>2</sub> O (nitrous oxide)	0.176	0.172	0.239	–	-26%	–	0.667	–	–	–	–
CH <sub>4</sub> (methane)	0.027	0.022	0.025	–	+8%	–	0.027	–	–	–	–
HFCs (hydrofluorocarbons)	0.035	0.035	0.026	–	+35%	–	0.091	–	–	–	–
PFCs (perfluorocarbons)	0	0	0	–	0%	–	0	–	–	–	–
SF <sub>6</sub> (sulfur hexafluoride)	0.001	0.001	0.000	–	.	–	0.000	–	–	–	–
NF <sub>3</sub> (nitrogen trifluoride)	0	0	0	–	0%	–	0	–	–	–	–
Total <sup>f</sup>	14.641	14.432	14.635	–	0%	–	17.810	–	–	–	–
Sale of energy to third parties (Scope 1) <sup>b</sup>	0.874	0.746	0.927	–	-6%	–	0.773	–	–	–	–
Scope 1 emissions (nonproduction companies)	0.037	0.038	–	–	–	–	–	–	–	–	–
<b>Gross Scope 1 emissions</b>	15.552	15.216	15.562	–	0%	–	18.583	–	–	–	–
Percentage of Scope 1 emissions from regulated emission trading schemes <sup>c</sup>	66 %	66 %	–	–	–	–	–	–	–	–	–
<b>Scope 2</b>							2018				
Scope 2 emissions (nonproduction companies) <sup>d</sup>	0.044	0.044	–	–	–	–	–	–	–	–	–
Location-based Scope 2 emissions (production companies)	3.520	3.587	3.317	–	+6%	–	3.747	–	–	–	–
Market-based Scope 2 emissions (production companies) <sup>e</sup>	2.352	2.416	2.340 <sup>e</sup>	–	+1%	–	4.067	–	–	–	–
<b>Gross location-based Scope 2 emissions</b>	3.564	3.631	3.317	–	+7%	–	3.747	–	–	–	–
<b>Gross market-based Scope 2 emissions</b>	2.396	2.460	2.340	–	+2%	–	4.067	–	–	–	–
Share of electricity consumption by market-based calculation <sup>f</sup>	46 %	47 %	–	–	–	–	–	–	–	–	–
<b>Total target-relevant Scope 1 and Scope 2 emissions<sup>g</sup></b>	16.993	–	16.975 <sup>e</sup>	–	0%	–	21.877	–	16.4	0	2.1%
<b>Scope 3</b>							2022				
<b>Total gross Scope 3 emissions</b>	91.64	94.49	–	–	–	–	–	–	–	–	–
1 – Purchased goods and services	52.34	54.13	–	–	–	–	54.13 <sup>h</sup>	–	–	0	–
2 – Capital goods	1.84	1.81	–	–	–	–	–	–	–	–	–
3 – Activities related to fuels and energies (not included in Scope 1 or Scope 2)	2.63	2.61	–	–	–	–	–	–	–	–	–
4 – Upstream transportation and distribution	2.32	2.32	–	–	–	–	–	–	–	–	–
5 – Waste generated in operations	0.76	0.75	–	–	–	–	–	–	–	–	–
6 – Business travel	0.12	0.12	–	–	–	–	–	–	–	–	–
7 – Employee commuting	0.20	0.20	–	–	–	–	–	–	–	–	–
8 – Upstream leased assets	0.15	0.16	–	–	–	–	–	–	–	–	–
9 – Downstream transportation	1.49	1.53	–	–	–	–	–	–	–	–	–
11 – Use of sold products	3.01	3.01	–	–	–	–	–	–	–	–	–
12 – End-of-life treatment of sold products	24.23	24.75	–	–	–	–	–	–	–	–	–
15 – Investments	2.56	3.12	–	–	–	–	–	–	–	–	–

## BASF Group's greenhouse gas emissions according to the Greenhouse Gas Protocol

Million metric tons of CO <sub>2</sub> equivalents	Retrospective						Milestones and target years				
	2024		2023		Difference 2024/2023		Base year	2025	2030	2050	Reduction each year on average
	Financial control	Operational control	Financial control	Operational control	Financial control	Operational control	Financial control	Financial control	Financial control	Financial control	Financial control
<b>Total</b>											
Total emissions (site-based)	110.76	113.34	–	–	–	–	–	–	–	–	–
Total emissions (market-based)	109.59	112.17	–	–	–	–	–	–	–	–	–
<b>Other metrics</b>											
Biogenic CO <sub>2</sub> emissions from the combustion or bio-degradation of biomass (Scope 1) <sup>b</sup>	0.140	0.140	0.112	–	+25%	–	–	–	–	–	–
Biogenic Scope 2 emissions from the combustion of biomass <sup>c</sup>	0.053	0	–	–	–	–	–	–	–	–	–
Biogenic Scope 3 emissions from the combustion or bio-degradation of biomass in the value chain <sup>d</sup>	1.23	1.23	–	–	–	–	–	–	–	–	–
Offsetting <sup>e</sup>	0	0	0	–	0%	–	0	–	–	–	–
Total emissions (location-based) per sales revenue (million metric tons CO <sub>2</sub> e/billion €) <sup>f</sup>	1.697	1.737	–	–	–	–	–	–	–	–	–
Total emissions (market-based) per sales revenue (million metric tons CO <sub>2</sub> e/billion €) <sup>f</sup>	1.679	1.719	–	–	–	–	–	–	–	–	–

<sup>a</sup> Emissions of N<sub>2</sub>O, CH<sub>4</sub>, SF<sub>6</sub> and NF<sub>3</sub> are converted into CO<sub>2</sub> emissions using the global warming potential (GWP) factor. GWP factors are based on the Intergovernmental Panel on Climate Change (IPCC) 2007, Errata table 2012 for the reporting year 2018, and IPCC 2014 for the reporting year 2024, in line with the requirements of the EU ETS methodology. HFCs (hydrofluorocarbons) and PFCs (perfluorocarbons) are calculated using the GWP factors for their individual components.

<sup>b</sup> Includes sales to BASF Group companies; as a result, emissions reported under Scope 2 can be considered twice in some cases.

<sup>c</sup> The emissions trading schemes from the following states/unions of states were used in the calculation: China, Germany, Europe, Shanghai, Switzerland, South Korea. Information subject to official review, which had not yet been completed at the time of the editorial deadline.

<sup>d</sup> The emissions are estimated on the basis of location-based emission factors, since no information on market-based factors is available.

<sup>e</sup> The comparative figure for 2023 has been adjusted to reflect updated data.

<sup>f</sup> The market- and location-based concept is applied exclusively to electricity.

<sup>g</sup> We adjusted the baseline in line with the TfS Guideline in the reporting year due to the availability of further primary data.

<sup>h</sup> The emissions are disclosed outside of Scope 1 in accordance with the Greenhouse Gas Protocol Standard.

<sup>i</sup> The emissions are disclosed outside of Scope 2 in accordance with the Greenhouse Gas Protocol Standard.

<sup>j</sup> The emissions are disclosed outside of Scope 3 in accordance with the Greenhouse Gas Protocol Standard. Only biogenic emissions from category 3.12 are included in the calculation. We do not have any information about other biogenic emissions along our value chain.

<sup>k</sup> Offsetting relates to carbon credits utilized in the reporting year.

<sup>l</sup> The sales revenue used to calculate the GHG intensity corresponds to the sales revenue in the report on the Results of Operations (see page 46).

<sup>z</sup> Emissions labeled with this footnote are included in our Scope 1 and Scope 2 emissions target.

BASF reports its Scope 2 emissions using the market-based approach in accordance with the Greenhouse Gas Protocol. In 2024, the share of total electricity consumption determined in accordance with the market-based approach was 45.9%. Contractual instruments such as energy attribute certificates (Guarantee of Origins, I-RECs), also in the form of power purchase agreements, local contracts to source renewable energy and supplier-specific electricity labels are used for this purpose.

Information trading methodologies, significant assumptions, factors and calculation tools that are used to calculate direct greenhouse gas emissions can be found among other places in General Disclosures in the Sustainability Statement from page 150 onward. We use supplier data where possible to calculate our market-based Scope 2 emissions. Where such data is not available, we rely on country-specific residual mix and grid-average emission factors respectively. In this case we use information from the International Energy Agency and the United States Environmental Protection Agency, among other sources. When calculating our Scope 3 emissions, we prefer to use primary data in particular for category 3.1. In the case of secondary data, we rely on leading life cycle analysis databases.

The following table explains the calculation approaches used for the individual Scope 3 categories.

### Calculation methodologies for Scope 3 categories

Scope 3 category	Calculation methodology
1 Purchased goods and services	The raw materials-related Scope 3.1 emissions are calculated per raw material, purchasing BASF company and supplier in those cases in which a supplier-specific PCF is available for the raw material. If no supplier-specific PCF is available, we use PCF values from databases (industry association data, GaBi, ecoinvent), publications or expert estimates. We record the packaging used globally and break it down into categories for which life cycle inventories were created. The data for technical goods and services is recorded by Procurement. Based on the SCI (Standard Industrial Classification) system, the segments are assigned a code, which is used to calculate emissions using emission factors from DEFRA (the United Kingdom Government's Department for Environment, Food and Rural Affairs).
2 Capital goods	See the calculation for emissions from technical goods and services (3.1)
3 Activities related to fuels and energies (not included in Scope 1 or Scope 2)	Fuel used and purchased volumes of electricity and steam are captured annually in an internal BASF EHS database. Emissions from fuel usage are calculated using regionally differentiated emission factors from the GaBi database, based on the type of fuel involved (coal, natural gas, LPG, light and heavy heating oil). The fuels used to generate purchased electricity and steam are determined using regional average values, after which the emissions are calculated in the same way as for purchased fuels. A conversion efficiency of 37% for electricity and 82.5% for steam is assumed.
4 Upstream transportation and distribution	Emissions are calculated on the basis of emission factors from EcoTransIT. Where no information about transportation distances is available, these are estimated by experts. It is assumed that almost all goods are transported by truck. Exceptions to this are the transportation of raw materials and naphtha in Europe and the transportation of all industrial gases and natural gas. In these cases the assumptions published by CEFIC (the European Chemical Industry Council) are used.
5 Waste generated in operations	A distinction is made in waste disposal between solid waste and wastewater. In addition, a distinction is made between different disposal routes for solid waste. It is assumed that the carbon content of solid waste corresponds to the average carbon content of the purchased raw materials. In the case of incineration, total conversion into CO <sub>2</sub> is assumed. In the cases of incineration plus energy recovery and landfill, emission factors from the ELCD (European Reference Life Cycle Database) are used. CO <sub>2</sub> emissions from wastewater are calculated on the basis of experts' estimates of the carbon content. Potential nitrous oxide emissions are not taken into consideration. In the case of sewage sludge treatment, only disposal via incineration and the resulting CO <sub>2</sub> emissions are included. It is assumed that no landfill is used and hence that no methane emissions arise.
6 Business travel	Data is captured by the travel agents commissioned by BASF and by other mobility service providers. If no primary data is available from these service providers, we use emission factors from DEFRA (flights, rental cars and trains) and the U.S. Environmental Protection Agency (EPA) (train travel and rental cars).
7 Employee commuting	Emissions are determined on the basis of a survey of BASF SE employees and then estimated on this basis for all employees in Europe. We use statistical data for the other regions. DEFRA data are used for the emission factors in Europe and Asia Pacific, and EPA data for North and South America.

## Calculation methodologies for Scope 3 categories

Scope 3 category	Calculation methodology
8 Upstream leased assets	<p>This category comprises leased cars, leased office and storage space and leased equipment. Average values provided by the manufacturers are used for leased cars, broken down by drive system and engine size.</p> <p>In the case of electric vehicles we use the regional CO<sub>2</sub> emission factors from the IEA (International Energy Agency). Since data availability varies, we extrapolate global emissions on the basis of BASF SE data and the number of staff. Emissions for leased office and storage space are calculated using the IEA's regional emission factors for electricity and internal standard values for steam. Energy consumption is assumed by region per m<sup>2</sup> on the basis of average values. Emissions from leased equipment are calculated in the same way as emissions from technical goods (3.1).</p>
9 Downstream transportation	<p>Greenhouse gas emissions from BASF's freight transports are calculated as well-to-wheel (WtW) emissions using the EcoTransIT World (ETW) IT solution, drawing on transportation data from BASF's ERP system.</p>
11 Use of sold products	<p>This category comprises direct emissions in BASF products' use phase. Since most products undergo further processing, this primarily relates to CO<sub>2</sub> that is passed on to the food industry; emissions from blowing agents needed to produce polyurethane foams; emissions from the production of polyurethanes from polyol and isocyanates; and emissions from the use of fertilizers, urea and carbonates (baking powder). We use our own purchase and sales volume data to calculate the emissions.</p>
12 End-of-life treatment of sold products	<p>Sales volumes and the carbon content of BASF's sales products are used to calculate emissions. It is assumed that the products are disposed of in the regions in which they were sold. Regional differences in disposal routes are taken into account. The annual shares of the different disposal routes for municipal waste are taken from the following sources: Eurostat, OECDStat, UNStats and IDB. In the case of waste disposal by incineration or landfill, it is assumed that all the carbon contained in the product is ultimately emitted as CO<sub>2</sub>.</p>
15 Investments	<p>Greenhouse gas emissions from joint ventures and associated companies accounted for using the equity method and not included in BASF's Scope 1 and Scope 2 emissions. Emissions from production sites are captured directly using a database query.</p>

## Internal carbon pricing

### E1-8

We use shadow prices in the form of price projections to factor in the costs of CO<sub>2</sub> emissions when assessing investment projects. These shadow prices differ by region (Europe, Asia and North America) and represent the expected developments in these economic areas in the decades up to 2050. In view of the different ways in which the global economy could potentially develop, BASF currently uses three different scenarios (for more on the scenarios see page 180), which are also used to analyze transition risks. The scenarios and the prices derived from them were developed together with an external cooperation partner. The fundamental drivers for the scenarios are different societal preferences and, building on these, climate and economic policy objectives. The result is a price per metric ton of CO<sub>2</sub> equivalents of up to €340, depending on the year. This is used for all Scope 1 and Scope 2 emissions caused by investments (capex) by our companies worldwide, and is included in the cost calculations. As a result, the emissions caused or reduced are directly included in the decision-making process. This favors investments in low-emission measures and measures that contribute to reducing emissions.



Since the investments will be made in the future, they are not included in the reported emissions for the business year. Consequently, the Scope 1, Scope 2 and Scope 3 emissions for the current year covered by shadow prices amount to 0 metric tons of CO<sub>2</sub> equivalents in each case. In the Consolidated Financial Statements, the shadow prices were only used for the valuation of the climate protection agreement that BASF concluded with the Federal Republic of Germany to fund a heat pump at the Ludwigshafen site.

## E2 Pollution Prevention

### ESRS E2

We work continuously to reduce environmental impacts caused by our business activities. This includes preventing or reducing emissions to air and water, which we achieve first and foremost by operating our plants safely and efficiently. We are also committed to our responsibility for environmental protection throughout the entire value chain in order to reduce the impacts on air and water. In addition, we develop product solutions for our customers that enable them to reduce emissions.

### ESRS 2 IRO-1

As part of our double materiality assessment conducted in 2024 (see page 167), the topic Environment was identified as material. In particular, the assessment identified emissions to air and water as relevant subtopics for the business activities of BASF. Emissions to air in the form of air pollutants, such as nitrogen oxides and ammonia, are produced in connection with energy generation and in our production processes. We use water as a coolant, solvent and cleaning agent as well as to make our products. We utilize waterways for the purpose of transporting goods. Most of the water used at our production sites is purified and largely reused multiple times, before being discharged as wastewater. Organic substances and heavy metals, for instance, are thus emitted.

Our double materiality assessment reveals nine material impacts on the environment and two material risks for BASF (see the table "Results of the double materiality assessment").

### Results of the double materiality assessment for E2 Pollution Prevention: Impacts

Impacts	Evaluation	Placement in the value chain	Description
Regular emissions to air (excluding greenhouse gases; GHG) in connection with the manufacture of extracted raw materials	Negative	Upstream value chain (mining/mineral extraction industry)	Emissions to air (excluding GHG) contributing to air pollution are generated in connection with the mining and extraction of raw materials in our upstream value chain in the mining and mineral extraction industries.
Regular emissions to air (excluding GHG) in connection with the production of precursors and intermediates	Negative	Upstream value chain (excluding mining/mineral extraction industry)	Emissions to air (excluding GHG) contributing to air pollution are generated by the production of precursors and intermediates in our upstream value chain.
Regular emissions to water	Negative	Upstream value chain	Emissions to water contributing to water pollution are generated by the production and extraction of raw materials, precursors and intermediates in our upstream value chain.
Regular emissions to air (excluding GHG)	Negative	BASF's own operations	Emissions to air (excluding GHG) contributing to air pollution, such as nitrogen oxides, particles and volatile organic compounds (VOCs), are generated in connection with production in our plants.
Regular emissions to water	Negative	BASF's own operations	Emissions to water contributing to water pollution, such as nitrogen compounds, organic substances and heavy metals, are generated in connection with production in our plants.
Regular emissions to air (excluding GHG) in connection with the usage, further processing, transport, storage and disposal of our products	Negative	Downstream value chain	Emissions to air (excluding GHG) contributing to air pollution are generated in connection with the usage, further processing, transportation, storage and disposal of our products by our customers.

## Results of the double materiality assessment for E2 Pollution Prevention: Impacts

Impacts	Evaluation	Placement in the value chain	Description
Regular emissions to water	Negative	Downstream value chain	Emissions to water contributing to water pollution are generated in connection with the usage, further processing, transportation, storage and disposal of our products by our customers.
Chemical leakages	Negative, potential	BASF's own operations, upstream and downstream value chain	Potential chemical leakages in our own operations, as well as in upstream/downstream processing, may result in pollution of water and therefore environmental pollution.
Impact on human health and the environment of substances of (very high) concern	Negative, potential	Downstream value chain	Due to the sale of products containing substances of concern or of very high concern, irresponsible and improper handling of these products in the downstream value chain may result in water or soil pollution or to an adverse impact on the environment or human health.

## Results of the double materiality assessment for E2 Pollution Prevention: Risks and opportunities

Risks	Evaluation	Description
Increased costs for water treatment due to regulatory changes.	Negative	Regulatory developments concerning emissions to water may require investments in our infrastructure and upgrades to our systems.
Regulations with respect to substances of (very high) concern may have a negative impact on the market, for procurement, BASF's own production or sales.	Negative	Regulatory changes on substances of concern or of very high concern, such as their restriction, may limit the availability of relevant raw materials and negatively impact market behavior and customer acceptance.

As a result of our double materiality assessment, emissions into the soil are not deemed as material for BASF. Moreover, generated and used microplastic does not represent a material topic for BASF either. We systematically record all short and long-term opportunities and risks linked to environmental impacts as part of our general opportunity and risk management (for additional information, see page [87](#) onward).

We considered all BASF sites and their operations as the basis for the double materiality assessment. Emissions to air and water are systematically documented and reviewed in a Group-wide database. Pollutant-related impacts are assessed and documented continuously. In addition, the screening of new sites includes environmental impact assessments by independent third parties. As part of internal approval processes, risks associated with environmental impacts are assessed and documented in an environmental statement. When assessing the upstream and downstream value chain, we are aware of the risks associated with the production and handling of chemical substances and draw on our own experience.

We aim to even better understand our impact on our environment in terms of emissions to air and water and include the perspectives of surrounding communities in our decision-making and activities. We are therefore committed to dialog based on a spirit of trust and maintain close relations with surrounding communities at our BASF sites. We provide information on the topic of emissions to air and water, issue updates on the latest developments, set up hotlines for immediate contact and availability as well as hosting neighborhood forums where concerns about environmental impacts, such as emissions to air and water, can be voiced (see also page [308](#)). In addition, we participate in dialog forums and advisory

bodies, such as our Nature Advisory Council, which we established together with external specialists, where we discuss topics related to nature and biodiversity (for more information, see page 309). Since 2023, we have also been using the new stakeholder engagement format of the Sustainability Lab, where around 100 external and internal experts discuss specific issues concerning sustainable development from various perspectives (for more information, see page 166). Also in the future, we plan to conduct the Sustainability Lab format on an event-driven basis.

» For more information about the BASF Nature Advisory Council, see [basf.com/en/nature-advisory-council](https://basf.com/en/nature-advisory-council)

» For more information on the BASF Sustainability Lab, see [basf.com/en/sustainability-lab](https://basf.com/en/sustainability-lab)

## Strategy and governance

### E2-1

Explanations of our overarching policies in respect of scope of application, accountability, impacts in the value chain, global applicability, accessibility to stakeholders and engagement thereof, see General Disclosures in our Sustainability Statement on page 151 onward. These include, among other things, our Responsible Care Management System and, as part of this, our global standards in terms of environmental protection, process safety, product safety and transportation safety as well as emergency and crisis management. BASF's position on water protection, our risk-based sustainability management for procurement and the Supplier Code of Conduct can also be found there.

### Environmental protection in our production

With its "Winning Ways" strategy, BASF intends to continue to drive forward the transformation of its production operations and its product portfolio. In order to prevent or reduce negative environmental impacts due to regular emissions to air and water, as well as due to potential product spills and leakages into water, a holistic approach is needed to ensure efficient and resource-saving production and continuous monitoring to protect the environment.

We have therefore established comprehensive management and control systems for our own production. BASF is actively involved in the International Council of Chemical Associations' (ICCA) global Responsible Care® initiative. Our Responsible Care Management System, based on the eponymous initiative, not only encompasses occupational health and safety requirements and standards (see page 278 onward), but also environmental protection. We aim to further reduce emissions to air from our production by means of process improvements and new technologies. Similarly, we strive to reduce negative impacts on water quality as part of responsible handling of water as a resource and sustainable water management. This is also set out in our position paper on water protection.

» For more information on our position paper on water protection, see [basf.com/water](https://basf.com/water)

We have defined our global standards for emissions to air and water in Group-wide requirements, the implementation and compliance of which is the responsibility of the sites and Group companies. The requirements also cover the aspects of process and transportation safety in order to prevent production and transportation-related product spills and leakages into air and water as effectively as possible (for more information, see page 209 onward). For example, these stipulate that water protection concepts must be implemented at all production sites in order to prevent unforeseen emissions and the pollution of surface or ground water. We continuously update our requirements and guidelines, which can be accessed via an internal BASF database. To this end, we also exchange information with authorities, associations and international organizations. We also exchange information, experiences and practical examples via the global BASF network of experts.

Our emissions to air and wastewater are subject to stringent controls. We assess their impact carefully and in compliance with applicable laws and regulations. In this context, we also evaluate whether regulatory developments concerning emissions to air and water require investments in our infrastructure and the further development of our systems. The chemical industry is facing substantial risks due to changes to and reforms of regulatory requirements or approval conditions, including in relation to the areas of environmental protection, biodiversity and ecosystems. More stringent regulations may limit the approval, use or marketing of certain chemicals. BASF plans to respond to regulatory changes with a combination of proactive and reactive measures. These include continuous monitoring, analysis of the regulatory framework and steering of our product portfolio using the TripleS (Sustainable Solution Steering) method. We also invest in research and development in order to continuously develop chemicals with improved toxicological and ecotoxicological properties and thus meet the new requirements. Moreover, BASF is committed to working closely with stakeholders and regulatory bodies to ensure that company practices comply with the latest standards.

Continuous monitoring, documentation and control of emissions to air and water as well as the implementation of measures for improvement are an integral part of our environmental management. The Corporate Center unit Corporate Environmental Protection, Health, Safety & Quality monitors this regularly by means of Responsible Care audits. We pursued a risk-based approach in the 121 audits carried out in 2024. In addition, responsible local authorities regularly inspect whether the analyses and safety precautions at our sites comply with internal and legal requirements.

In developing our business strategies, we also consider the resilience of our business models with regard to economic, ecological and social aspects, as well as their impacts, risks and opportunities. As part of our opportunity and risk management system, strategic risks connected with material economic, ecological and social matters are evaluated, among other things (for additional information, see page [87](#) onward). The strategies of our business units are updated on a regular basis. This is done either individually at business unit level or as part of the overarching operating division strategy, and involves specialists from the business unit or operating division concerned and from our central strategy unit. In 2024, we have piloted a method to address material topics in the strategies of the business units over the next ten years. Depending on the extent of the strategy revision, resilience reviews, regulatory aspects and stakeholder expectations can be included to estimate future market developments. Upstream and downstream value chains can also be taken into account. In addition, we use our TripleS method to review the resilience of our product portfolio with regard to environmental and social aspects.

### Process, product and transportation safety

In particular, the reliable and safe operation of our plants, which form the core of our business, represents a key element of our Responsible Care Management System. We take extensive preventive measures in order to counteract incidents at our plants – such as product spills and leakages into water – and continuously improve our production processes. Opportunities arise in particular in the automation and digitalization of processes.

The topic categories of product and transportation safety, emergency response and remediation, soil and groundwater also form part of our Responsible Care Management System. With comprehensive safety concepts and globally binding standards and requirements, we aim to prevent resulting environmental damage to the best extent possible, such as product spills and leakages into air and water. Here, we rely on comprehensive preventive measures and clearly defined responsibilities. We review the guidelines by means of regular audits. We continuously further develop our production and logistics processes as well as our approach to product stewardship.

As a chemical company, we also transport dangerous goods. We want to ensure that our products are loaded, transported and handled in accordance with the relevant regulations and their hazard potential, thereby minimizing the risk along the entire transportation chain. To this end, the managers responsible and their employees are regularly trained, advised and supervised by our transportation safety experts, and the reliability of logistics partners is regularly reviewed. All BASF products intended for transportation must be clearly identifiable, classified, securely packaged and labeled.

Should a crisis situation, however, be caused by process safety incidents, product spillages or other emergencies, we wish to be as well prepared as possible at global, regional and local level. We have established structures and processes for emergency preparedness and emergency response that enable an effective response. Our emergency and crisis management focuses on the protection of our employees, contractors and neighbors, the safety of our plants and the protection of the environment. Unusual incidents are recorded and reported centrally in accordance with a standardized Group-wide procedure (e-Rapid Incident Report). The aim is to identify risks at an early stage and, if necessary, initiate appropriate remedial and communication measures. Incidents are followed up on to identify potential for improvement, which is integrated into existing concepts as needed.

We continually invest in reducing the impact of our actions on the environment. By means of Responsible Care audits in the areas of “Organization and management system,” “Product stewardship,” “Transportation safety,” “Process safety,” “Environment (air, water, waste)” and “Emergency response,” we are able to verify compliance with our policies. We also establish appropriate provisions for environmental protection measures, including provisions for the remediation of contamination at our sites (for additional information, see Note 22 to the Consolidated Financial Statements on page [409](#)).

Emissions to soil were not material in the reporting year (see page [206](#)). Nevertheless, contamination exists at former and active sites, and/or at sites for which we have taken on responsibility in connection with acquisitions. It is our principle to manage these contaminated sites in close consultation with the responsible authorities in such a way that no negative impacts arise on the environment. We develop remediation solutions that aim to balance nature conservation and climate protection concerns, costs and social responsibility. These site and case-specific measures take into account the legal frameworks and currently available technology. We document contamination risks and the status of soil and groundwater for our sites worldwide in a database. Ongoing remediation work continued on schedule in the reporting year and planning was completed for further measures.



In order to minimize the impact of substances of concern and substances of very high concern on human health and the environment in the downstream value chain, such substances are used in accordance with statutory requirements, such as the EU's REACH regulation. In addition, our TripleS method for steering the sustainability performance of our product portfolio (see page [161](#)) takes into account substances of concern and of very high concern with a view to proactive portfolio and substitution planning.

For more information on substances of concern or of very high concern, as well as their potential impact on human health and the environment, see Substances of concern or of very high concern in this chapter on page [218](#) onward.

### Responsibility in our value chain

We are also committed to our responsibility for environmental protection throughout our entire value chain in order to reduce the impacts of regular emissions to air and water and potential product spills and leakages. Alongside production at our plants and the activities at our sites and warehouses, this also applies to the procurement and transport of our raw materials as well as the distribution and usage of our products.

For our **upstream value chain**, our procurement organization has established guidelines in a global risk-based management system that define how we implement our due diligence processes. We have defined corresponding standards in a global requirement. We continuously enhance this requirement and our structures and processes in order to adapt to changing conditions. Procurement requirements and targets are set centrally and are binding for all employees with procurement responsibility worldwide. We endeavor to ensure compliance with these guidelines using a multistage control process. The unit-specific risk management systems of our business units are supported and monitored during implementation according to minimum standards set by the Corporate Center units. The Corporate Audit unit, as the third instance involved, monitors the effectiveness of and compliance with risk management. Our management processes are activated in the event of specific incidents (see pages [297](#) and [301](#)). We expect our suppliers to comply with internationally recognized environmental standards. Our expectations are set out in our global Supplier Code of Conduct (see page [295](#)), which is part of our risk-based management system and integrated into our procurement conditions. It is based, among other things, on the Ten Principles of the United Nations Global Compact initiative and ICCA's Responsible Care® program and also includes emissions to air and water.

As part of our supplier management, we review compliance with our required criteria when selecting suppliers and assessing new and existing supplier relationships. We instruct our suppliers to reduce regular emissions to air and water and to prevent product spills and leakages in upstream processing. We arrange for third parties to evaluate suppliers with a high sustainability risk. Supplier assessment is mainly performed as part of the chemical industry's Together for Sustainability initiative (TfS), either through on-site audits by TfS-approved auditors or through sustainability assessments based on online assessments via the rating agency EcoVadis. Depending on business requirements, we perform our own Responsible Care audits at selected contract manufacturers if material risks have been identified with respect to environmental protection. This also includes emissions to air and water.

In our **downstream value chain**, we continuously want to collaborate with our customers on the development of innovations and solutions that are designed to enable their green transformation and make a significant contribution to sustainability (for more information on steering the sustainability performance of our product portfolio using the TripleS methodology, see page [161](#) onward). We offer our customers a wide range of products that enable them to reduce regular emissions to air or water, from industrial process catalysts and fuel additives to high-performance plastics for manufacturing ultrafiltration membranes and the precursors used to produce coagulants for water treatment.

We have also established relevant global management systems in our downstream value chain. We address the safe handling and application of our chemical raw materials and products as part of our product and transportation safety management, for example. BASF regards product stewardship as an integral component of all business processes, as a key element of our risk management system and as a vital pillar of our commitment to Responsible Care®. We aim to continuously minimize negative impacts on humans and the environment and to improve the safety and sustainability of our products on an ongoing basis.

Before our products are launched on the market, they undergo various tests and assessments – depending on legal requirements and their application profile. These tests enable us to identify potential hazard characteristics as well as health and environmental risks at an early stage. On the basis of the results, we devise precautionary and protective measures and develop recommendations on safe handling – from production to application through to transport and disposal – in order to prevent potential product spills in downstream processing, for example.

By systematically implementing external and internal requirements, we also aim to ensure in the downstream value chain that our customers receive their goods in harmless condition as well as in safe packaging and transport containers. To this end, we rely on the qualified selection, approval and clear labeling of packaging and transport containers as well as the accompanying transport documents and multiple checks. We communicate product safety information via our safety data sheets. These contain, for example, information on the physicochemical, toxicological and ecotoxicological properties of our products, as well as on potential hazards, first aid measures, measures to be taken in the case of accidental release and disposal, and on safe handling. We also wish to contribute to the prevention of leakages and emergencies and to mitigating and limiting their impacts. Should an emergency occur, however, we provide our customers with the support of our expert network.

## Actions

### E2-2

Our actions for avoiding and minimizing environmental pollution often entail decentralized activities, projects and initiatives. They have not been assigned to any centrally managed action plan. Instead, they – like our management and monitoring systems – aim to ensure continuous optimization and further development and fall within the responsibility of the sites and Group companies concerned. This goes hand in hand with the BASF approach to sustainability steering (see page [152](#)).

### Actions in our own production

Our activities for avoiding and minimizing environmental impacts due to regular emissions to air and water take effect right at the start of the product life cycle: We invest continuously in research and development (for additional information, see page [37](#) onward) in order to design products in such a way that their impacts on the environment are as minimal as possible. Drawing on TripleS – an instrument used to steer our product portfolio based on the sustainability performance of our products – we review our relevant global product portfolio continuously, but at least every four years (for more information, see page [161](#)).

Moreover, we evaluate the effectiveness of our actions as part of our Responsible Care audits in the categories of "Organization and management system," "Product stewardship," "Transportation safety," "Process safety," "Environment (air, water, waste)" and "Emergency response."

Thanks to our focus on operational excellence (see also page [190](#)), we continuously design our plants and processes to be more efficient and resource-saving. This creates direct incentives for investing in efficiency projects and contributes to reducing emissions. Corresponding projects address all levels of the mitigation measure hierarchy: Prevent, reduce, recapture and reuse, restore and regenerate. We therefore further reduce regular emissions to air through various actions, such as lowering the emission of nitrogen oxides using catalysts and feed waste gases back into the production process.

When it comes to emissions to water, our approach is to reduce wastewater volumes and contaminant loads at the source in our production processes and to reuse wastewater and material flows internally as far as possible. To treat wastewater, we use both central measures in wastewater treatment plants and the selective pretreatment of individual wastewater streams before these are sent to the wastewater treatment plant. We use different methods depending on the type and degree of contamination – including biological processes, chemical oxidation, membrane technologies, precipitation or adsorption. At our Verbund site in Freeport, Texas, we commissioned a membrane bioreactor for treating wastewater in 2023, which improved the capacity and cleaning performance of the wastewater treatment plant. In the medium term, the treated wastewater is to be reused, thereby reducing the need for freshwater. Depending on the local situation, we also implement actions together with other stakeholders. For example, at the Tarragona site in Spain, we are working with our water supplier AITASA and other companies to further expand wastewater reuse in the medium term.

As part of our water protection concepts, we regularly conduct risk assessments of our wastewater, evaluate it in terms of its risks and derive suitable monitoring measures.

In order to take preventive action against environmental impacts due to potential product spills and leakages, such as into water, we set demanding safety standards when planning, building and operating our plants around the world. These meet and, in some cases, go beyond local legal requirements. Our experts develop a safety concept for every plant that takes into account the key safety, occupational health as well as environmental protection aspects – from plant design to the end of production – and stipulates corresponding protective measures. In order to maintain a high level of safety at our plants worldwide over their entire life cycles, we carry out implementation checks at regular intervals and dependent on the risk potential to verify the implementation of our safety concepts. We regularly update the safety and protection concepts of our plants. Here, we particularly take new findings, technological opportunities and regulatory developments into account.

To reduce process safety incidents, we focus in particular on technical measures, digital solutions and on a leadership culture that places even greater focus on process safety and dealing openly with mistakes. We use the rate of High Severity Process Safety Incidents (hsPSI) per 200,000 working hours as a reporting indicator (for information on the external validation of metrics, see General Disclosures on page [151](#)).

By 2030, we aim for a rate of no more than 0.10 High Severity Process Safety Incidents per 200,000 working hours.<sup>1</sup> In 2024, we recorded a global rate of 0.03 hsPSI per 200,000 working hours (2023: 0.05). The rate of process safety incidents (PSI rate; number of process safety incidents per 200,000 working hours) was 0.22 in 2024 (2023: 0.29). In addition, we are continually refining our training methods and offerings to increase risk awareness and strengthen our safety culture. In North America, a campaign was launched in 2023 with the aim of promoting behaviors that contribute to responsible and competent safety practices. To engage their teams in discussions on these topics, leaders have specific tools at their disposal. One example is an instrument known as the "Safety Moment": short, illustrative presentations with thought-provoking ideas on safety, which can be used routinely to kick off meetings and events. In internal and external networks, through our involvement in associations such as the ICCA, the European Process Safety Centre (EPSC) and the Center for Chemical Process Safety (CCPS), as well as through our dialog with authorities, we make an active and continuous contribution to improving process safety around the world.

In the event of process safety incidents, their handling initially falls within the remit of local crisis organizations and/or local emergency response. We have implemented precautionary organizational measures with clearly defined responsibilities and procedures at all sites for this purpose. The employees responsible receive regular training. This includes safety and emergency drills, which vary in scope and the number of people involved. Depending on the situation, we also involve business partners and our sites' communities, such as cities or neighboring companies, both in drills and in the event of an emergency. Additional teams may be called in for emergencies, depending on the development of the damage extent. The Global Crisis Management Support Team (GCMS), led by a member of the Board of Executive Directors, is activated in the event of a global crisis situation. It provides the strategic direction for crisis management and is supported by issue-specific and specialist working groups.

We use a range of tools to minimize transport risks, such as impacts on the environment due to potential product leakages. For every dangerous good, we verify whether the packaging has been approved for that product and is suitable for the type of transport. We conduct digital dangerous goods checks before shipping orders are released. Vehicles are subjected to a thorough dangerous goods check prior to loading and rejected if there are any issues. Above and beyond this, we use our global requirements to specifically assess the safety and environmental risks of transporting and handling raw materials and sales products with high hazard potential. This is based on the guideline Safety Risk Assessment for Chemical Transport Operations of the European Chemical Industry Council (CEFIC). We stipulate worldwide requirements for our logistics service providers and assess them in terms of safety and quality. Our experts use our own tools as well as internationally approved schemes for evaluation and monitoring. These include the ship inspection reports issued by the Chemical Distribution Institute (CDI). We remain involved in external networks, which quickly provide information and assistance in emergencies. These include the Intervention in Chemical transport Emergencies (ICE) initiative and the German Transport-Accident-Information and Emergency-Response-System (TUIS), in which BASF plays a coordinating role. We apply the experience we have gathered in the course of this involvement to improve our own processes and set up similar systems in other countries.

<sup>1</sup> Working hours by BASF employees, temporary workers and contractors.

## Actions in the value chain

We are committed to minimizing the impacts of regular emissions to air and water as well as of potential product leakages into water throughout our entire value chain. To this end, we work together with our suppliers and numerous partners. Ongoing initiatives serve the purpose of continuous optimization and further development.

In the **upstream value chain**, we take a closer look at suppliers in critical supply chains, such as those for mineral and renewable raw materials and a range of pigments, using a risk-based approach. Upstream stages of the value chain are assessed in respect of serious sustainability risks, with suitable remedial measures instigated where necessary (see pages 297 and 301). In shared initiatives with suppliers and other partners, we also develop and test approaches to making the supply of raw materials more sustainable. We work continuously to switch to more sustainable alternatives for raw materials and to reduce the use of raw materials in the manufacture of our products, such as by means of more efficient processes and innovative technologies.

This also enables us to provide our customers in the **downstream value chain** with more sustainable solutions and reduce emissions.

With TripleS, we have established a steering tool for our product portfolio based on the sustainability performance of our products (for more information, see page 161). Based on this, we review our relevant global product portfolio continuously, but at least every four years. In 2022, we updated the TripleS method in order to further steer our product portfolio toward climate protection, climate neutrality and circular economy. In addition to implementing new regulatory requirements, we are actively driving forward the adaptation and further development of our production processes with the aim of reducing the environmental footprint of our products. Criteria for mitigating environmental impacts, such as reducing emissions to air and water or new approaches to water purification, also form part of the evaluation process. If products with sustainability concerns are identified, we classify them as part of TripleS either as Monitored, or in the case of significant concerns, as Challenged. A description of potential actions is mandatory for both categories. In the event of significant challenges, we develop action plans to optimize the products or replace them with alternative solutions. These include research projects and reformulations to optimize products or replace them with alternative products. To consistently make our portfolio more sustainable, we are generally phasing out all Challenged products within five years of their initial classification.

» For more information on TripleS, see [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering)

Together with partners and in dialog with stakeholders in the food value chain, we continuously drive projects aimed at promoting sustainable agriculture. Improper use of our crop protection and seed products may have a negative impact on human health and the environment. We are therefore focusing our smart stewardship activities on education and continuously improving our solutions for farmers through the use of digital tools and innovative technologies. Alongside aspects such as efficacy and productivity, this includes also safe use by our customers and impact on the environment. All of BASF's crop protection products can be used safely under local farming conditions if the information and directions on the label are followed. If they have any questions, complaints or issues, our customers can contact us through various channels, for example, by calling the telephone number printed on all product labels, using the contact forms on our websites or by approaching our sales employees directly. We record all product incidents relating to health or the environment that come to our attention in a global database. If necessary, we take appropriate measures on the basis of this information to minimize preventable incidents. These include updating the instructions for use on product labels. We communicate these changes and general recommendations on the safe use of our products through channels such as our global training and education activities.

» For more information on smart stewardship, see [basf.com/smart-stewardship](https://basf.com/smart-stewardship)

In order to protect the water as a resource, deepen our knowledge and share our expertise with others, we cooperate with numerous partners along the value chain and from civil society. We are, for example, a member of the Alliance for Water Stewardship, which, with its Strategy 2022–2030, calls for collective action to tackle shared water challenges. In addition, we are continuously involved in networks such as the Alliance to End Plastic Waste (AEPW), the World Plastics Council and Operation Clean Sweep® to prevent waste from plastic production from entering water bodies. In South America, we support sustainable development activities, including in the area of water, through Fundação Eco+.

## Global targets

### E2-3

In our global sustainability-related corporate targets (for additional information, see page [31](#) onward), we see effective levers in terms of environmental protection in general. These include our climate targets to reduce our greenhouse gas emissions, our target of closing loops, our TripleS target, our sustainable water management target and our responsible procurement target.

We also endeavor to minimize potential incidents impacting the environment through our targets for resource-efficient and safe production, particularly our process safety target. A process safety incident, however, does not necessarily have a negative impact on the environment. From 2025 onward, the environmental impacts from process safety incidents will – as is already the case for transportation incidents with significant environmental impacts – be systematically recorded in a global database.

In 2024, we had no transportation incidents with significant impacts on the environment.

BASF does not have a specific reduction target for emissions to air (excluding GHG) and water in the topic category Pollution Prevention. All relevant indicators are monitored and published on a regular basis (see Metrics on page [216](#) onward). The ways in which we track the effectiveness of our policies is discussed in the section Strategy and governance from page [207](#) onward.

We discuss the sustainability topics that are material for BASF at regular meetings with external stakeholders, forming part of our strategic stakeholder engagement activities, and in discussions with investors. Through this, the expectations of our stakeholders are continuously taken into account when setting potential targets.



## Metrics

### Emissions to air and water

E2-4

#### Emissions to air and water in 2024 (excluding GHG)<sup>a</sup>

Pollutant	Emissions to air in kg per year	Emissions to water in kg per year
Carbon monoxide (CO)	1,841,646	–
Ammonia (NH <sub>3</sub> )	1,894,780	–
Nonmethane volatile organic compounds (NMVOCs)	2,622,097	–
Nitrogen oxides (NO <sub>x</sub> /NO <sub>2</sub> )	7,596,114	–
Sulfur oxides (SO <sub>x</sub> /SO <sub>2</sub> )	905,966	–
Total nitrogen	–	1,875,809
Total phosphorus	–	172,297
Hydrochlorofluorocarbons (HCFCs)	15,667	–
Chlorofluorocarbons (CFCs)	181	–
Halons	198	–
Arsenic and compounds (as As)	53	483
Cadmium and compounds (as Cd)	20	45
Chromium and compounds (as Cr)	123	326
Copper and compounds (as Cu)	–	2,212
Mercury and compounds (as Hg)	20	–
Nickel and compounds (as Ni)	680	1,812
Lead and compounds (as Pb)	–	34
Zinc and compounds (as Zn)	835	7,322
Alachlor	–	–
Aldrin	–	–
Atrazine	–	–
Chlordane	–	–
Chlordecone	–	–
Chlorfenvinphos	–	–
Chloro-alkanes C <sub>10</sub> –C <sub>13</sub>	–	–
Chlorpyrifos	–	–
DDT	–	–
1,2-Dichloroethane (EDC)	1,867	–
Dichloromethane (DCM)	11,730	–
Dieldrin	–	–
Diuron	–	–
Endosulphan	–	–
Endrin	–	–
Halogenated organic compounds (as AOX)	–	37,452
Heptachlor	–	–
Hexachlorobenzene (HCB)	–	–
Hexachlorobutadiene (HCBd)	–	–
1,2,3,4,5,6-Hexachlorocyclohexane (HCH)	–	–
Lindane	–	–
Mirex	–	–
PCDD + PCDF (dioxins + furans) (as TEQ)	–	0.03
Pentachlorobenzene	–	–
Pentachlorophenol (PCP)	–	1
Polychlorinated biphenyls (PCBs)	–	–
Simazine	–	–
Tetrachloroethylene (PER)	–	–
Tetrachloromethane (TCM)	1,025	–
Trichlorobenzene (TCB) (all isomers)	2,604	–

Emissions to air and water in 2024 (excluding GHG)<sup>a</sup>

Pollutant	Emissions to air in kg per year	Emissions to water in kg per year
1,1,1-trichloroethane	-	-
1,1,2,2-tetrachloroethane	-	-
Trichloroethylene	-	-
Trichloromethane	5,625	-
Toxaphene	-	-
Vinyl chloride	-	-
Anthracene	-	-
Benzene	12,729	-
Brominated diphenylether (PBDE)	-	-
Nonylphenol and nonylphenol ethoxylates (NP/NPEs)	-	280
Ethylbenzene	-	-
Ethylene oxide	3,846	90
Isoproturon	-	-
Naphthalene	14,564	-
Organotin compounds (as total Sn)	-	-
Di-(2-ethyl hexyl) phthalate (DEHP)	-	-
Phenols (as total C)	-	4,698
Polycyclic aromatic hydrocarbons (PAHs)	-	-
Toluene	-	-
Tributyltin and compounds	-	-
Triphenyltin and compounds	-	-
Total organic carbon (TOC) (as total C or CSB/3)	-	3,485,782
Trifluralin	-	-
Xylenes	-	-
Chlorides (as total Cl)	-	243,528,382
Chlorine and inorganic compounds (as HCl)	134,044	-
Asbestos	-	-
Cyanides (as total CN)	-	4,399
Fluorides (as total F)	-	140,374
Fluorine and inorganic compounds (as HF)	-	-
Hydrogen cyanide (HCN)	3,163	-
Particulate matter (PM <sub>10</sub> )	584,650	-
Octylphenols and octylphenol ethoxylates	-	89
Fluoranthene	-	-
Isodrin	-	-
Hexabromobiphenyl	-	-
Benzo(g,h,i)perylene	-	-

<sup>a</sup> A hyphen (-) indicates that the parameter and medium in question do not trigger a reporting obligation or that the emissions are not above the threshold value.

For a description of our measurement methods on determining the quantities of substances emitted in connection with environmental pollution and a description of the data collection process for accounting and reporting in connection with the reduction of environmental pollution, as well as general information on the estimation or rounding of individual sustainability metrics, see General Disclosures from page 150 onward in our Sustainability Statement.

## Substances of concern or of very high concern

E2-5

Substances of concern or of very high concern may represent an integral component of the chemical raw materials used for production or of chemical products. To this extent, a portion of our products, which are key input products in further industrial or professional value creation or application, contain substances of concern or of very high concern. We address the safe handling and usage of chemical raw materials as part of our product safety. BASF understands product safety to be an integral part of all business processes, as an important element of our risk management and as an essential pillar of our commitment to Responsible Care®.

We continuously work on ensuring our products – including those that may contain substances of concern or very high concern – pose no risk to people and the environment when they are used responsibly and in the manner intended. A thorough safety and risk assessment enables us to serve markets with innovative and more sustainable products that meet regulatory requirements while still responding to trends.

We aim to comply with all relevant national and international laws and regulations. The guidelines, requirements, processes and responsibilities described above in this chapter under “Strategy and governance,” also pertain to the handling of substances of concern and of very high concern.

We document and evaluate the safety, health and environmental information for our substances and products in a global database. We update this information on an ongoing basis. The database forms the basis for communicating this information via our safety data sheets, which we provide to our customers in around 40 languages. These include information on physicochemical, toxicological and ecotoxicological properties of products, potential hazards, first aid measures, measures taken in the case of accidental release and disposal. Our global emergency hotline network enables us to provide information around the clock. To ensure that people who buy, sell, use, transport or dispose of our products can quickly find information about the products and their associated hazards, we use the Globally Harmonized System (GHS) to classify and label our products around the world, provided this is legally permissible in the country concerned. We take into account national or regional adaptations within the GHS framework if applicable, such as the EU's regulation on the classification, labeling and packaging of substances and mixtures (CLP Regulation).

If necessary, we advise our customers on product safety. We set global requirements on the safe transport of dangerous goods for our logistics providers (see page 213). We also train our employees worldwide on the proper handling and usage of selected products with special hazard potential. In associations and together with other manufacturers, BASF supports the establishment of voluntary global commitments to prevent the misuse of chemicals. We are also involved at national and international level in various initiatives to further develop risk assessments, such as that of the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC).

With such efforts, we aim to ensure that these substances or products containing these substances with very high hazard potential are safely handled and to ensure that impacts on human health and the environment can be prevented.

Substances of concern and of very high concern are subject to strict regulatory supervision, and the list of restricted substances with hazardous properties is continuously growing. When a substance is added to a regulatory list, this can change both the future availability of raw materials and the market behavior of customers and consumers. Normally, such changes are planned well in advance and transparently, allowing the industry to prepare by taking suitable measures, such as substitution planning or the implementation of derogations. Our proactive TripleS steering instrument, for example, makes a substantial contribution to planning a sustainable portfolio. A potential material risk for value chains,

which would, however, not specifically affect BASF, could only arise in the event of an unforeseen proliferation of regulatory measures.

The substances of concern or of very high concern deployed by BASF in global value chains in the 2024 business year are stated in the following tables. As an integrated chemical company, BASF manufactures a broad portfolio of products, many of which are further processed by customers in the chemical industry. We handle the substances in our production appropriately and supply our customers with products that can be used safely if handled properly. As a B2B company, we market only a very small portion of our products directly to consumers and end users. The values listed in the tables also include multiple counts if several main hazard classes apply to a substance. The values therefore do not correspond to the total tonnages actually introduced into the downstream value chain.

#### Information about substances of concern (SoC) that are classified in one of the following hazard classes or hazard categories in Part 3 of Annex 4 of Regulation 1272/2008 (CLP Regulation)

Main hazard class <sup>a</sup>	Total volumes (aggregated) in metric tons per year <sup>b</sup>
Carcinogenicity (Carc. 1; Carc. 2)	4,178,324
Germ cell mutagenicity (Muta. 1; Muta. 2)	2,058,739
Reproductive toxicity (Repr. 1; Repr. 2)	697,124
Endocrine disruptor for human health (ED HH 1; ED HH 2) <sup>c</sup>	–
Endocrine disruptor for the environment (ED ENV 1; ED ENV 2) <sup>c</sup>	–
Persistent, mobile and toxic (PMT) or very persistent and very mobile (vPvM) <sup>c</sup>	–
Persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) <sup>c</sup>	–
Respiratory sensitization (Resp. sens. 1)	1,995,577
Skin sensitization (Skin sens. 1)	2,809,301
(Aquatic chronic 1; Aquatic chronic 2; Aquatic chronic 3; Aquatic chronic 4)	764,913
Damages the ozone layer (Ozone 1)	612
Specific target organ toxicity, repeated exposure (STOT RE 1; STOT RE 2)	3,442,402
Specific target organ toxicity, single exposure (STOT SE 1; STOT SE 2)	643,551

<sup>a</sup> Where components in a product/material are assigned to more than one main hazard class, the volume of components will be included in each hazard class, respectively.

<sup>b</sup> Emissions (separate reporting via environmental legislation) not included

<sup>c</sup> Not yet implemented part of the EU regulation

Information on substances of very high concern (SVHC) that correspond to the criteria pursuant to Article 57 and that have been identified pursuant to Article 59 (1) of the REACH regulation (EC) 1907/2006

Main hazard class as per REACH Article 57 <sup>a</sup>	Total volume (aggregated) in metric tons per year <sup>b</sup>
Carcinogenity (Carc. 1A; Carc. 1B) (Article 57a)	289,788
Germ cell mutagenicity (Muta 1A; Muta 1B) (Article 57b)	224,046
Reproductive toxicity (Repr. 1A; Repr. 1B) (Article 57c)	67,739
Persistent, bioaccumulative and toxic (PBT) Article (57d)	807
Very persistent and very bioaccumulative (vPvB) (Article 57e)	1,593
Substances – such as those with endocrine disrupting properties or those with persistent, bioaccumulative and toxic properties or very persistent and very bioaccumulative properties that do not meet the criteria of items d or e – that according to scientific knowledge probably have severe impacts on human health or on the environment, which give rise to an equivalent level of concern to those other substances listed under a to e and that are identified, on a case-by-case basis, in accordance with the procedure set out in Article 59 (Article 57f).	46,354

<sup>a</sup> Where components in a product/material are assigned to more than one main hazard class, as nominated in the candidate list, the volume of components in each hazard class will be included, respectively.

<sup>b</sup> Emissions (separate reporting via environmental legislation) not included

## E3 Water

### ESRS E3

Water is of fundamental importance in chemical production along the entire value chain. It is used as a coolant, solvent and cleaning agent, and to make our products. Waterways are used to transport goods. At the same time, water is a scarce commodity in an increasing number of regions. That is why we promote the responsible use of this resource with sustainable water management.

Our main business – the development, production and processing of chemicals – as well as the transportation of chemicals requires the responsible use of water as a resource. Firstly, we aim to use water as sparingly and efficiently as possible. Secondly, we want to minimize emissions of potentially harmful substances to water in our production processes and treat wastewater adequately. We address environmental, health and safety risks with a comprehensive Responsible Care Management System (see page 207).

### ESRS 2 IRO-1

As part of our double materiality assessment conducted in 2024 (see page 167), the topic Water was identified as material. The assessment identified six material impacts on water as a resource and one material risk for BASF (see the table “Results of the double materiality assessment”).

#### Results of the double materiality assessment for E3 Water: Impacts

Impacts	Evaluation	Placement in the value chain	Description
Limited availability due to water abstraction and consumption	Negative	Upstream value chain	We impact water availability through water abstraction and consumption in our upstream value chain, particularly in water stress areas.
Regular emissions to water	Negative	Upstream value chain	Emissions to water contributing to water pollution are generated by the production and extraction of raw materials, precursors and intermediates in our upstream value chain.
Limited availability due to water abstraction	Negative	BASF's own operations	Water abstraction for our production impacts water availability in the areas where our production sites are located, particularly in water stress areas.
Regular emissions to water	Negative	BASF's own operations	Emissions to water contributing to water pollution, such as nitrogen compounds, organic substances and heavy metals, are generated in connection with production in our plants.
Limited availability due to water abstraction and consumption	Negative	Downstream value chain	We impact water availability through water abstraction and consumption in our downstream value chain, particularly in water stress areas.
Regular emissions to water	Negative	Downstream value chain	Emissions to water contributing to water pollution are generated in connection with the usage, further processing, transportation, storage and disposal of our products by our customers.



## Results of the double materiality assessment for E3 Water: Risks and opportunities

Risk	Evaluation	Description
Increased costs for water treatment due to regulatory changes	Negative	Regulatory developments concerning emissions to water may require investments in our infrastructure and upgrades to our systems.

The three identified impacts related to water quality impairment from regular emissions to water along the value chain, as well as the identified risk from regulatory developments, are mainly covered in chapter E2 Pollution Prevention (see page [205](#)).

The use of marine resources, such as seawater as a water source or for wastewater discharge, is not considered material for BASF due to the small volumes involved. Our Responsible Care Management covers these aspects despite their lower relevance. We systematically record all short and long-term opportunities and risks that arise from water as part of our general opportunity and risk management (for additional information, see page [87](#) onward).

As the basis for the double materiality assessment, all BASF sites were considered for our own operations. We systematically record and monitor water volumes and constituents in a Group-wide database. The impacts of water abstraction and wastewater discharge are continuously assessed and documented as part of permitting requirements. The screening of new sites also includes environmental impact assessments by independent third parties. As part of internal approval processes, risks associated with environmental impacts are assessed and documented in an environmental statement. When assessing the upstream and downstream value chain, we are aware of the risks associated with the production and handling of chemical substances and draw on our own experience.

By engaging in open and trusting dialog, we strive for better understanding our impact on the environment and incorporate the perspectives of surrounding communities in our decision-making and doing. Our BASF production sites maintain close relationships with surrounding communities by providing information and updates on current developments, offering hotlines for immediate contact and availability as well as hosting neighborhood forums to address concerns about environmental impacts, such as water availability and quality (see also page [308](#)). In addition, we rely on dialog forums and advisory bodies, such as our Nature Advisory Council, which we established together with external specialists, where we discuss topics related to nature and biodiversity (for more information, see page [309](#)). Since 2023, we have also been using the new stakeholder engagement format of the Sustainability Lab, where around 100 external and internal experts discuss specific issues concerning sustainable development from various perspectives (for more information, see page [166](#)). Also in the future, we plan to conduct the Sustainability Lab format on an event-driven basis.

» For more information on the BASF Nature Advisory Council, see [basf.com/en/nature-advisory-council](https://basf.com/en/nature-advisory-council)

» For more information on the BASF Sustainability Lab, see [basf.com/en/sustainability-lab](https://basf.com/en/sustainability-lab)

## Strategy and governance

### E3-1

Explanations of our overarching policies in respect of scope of application, accountability, impacts in the value chain, global applicability, accessibility to stakeholders and engagement thereof, see General Disclosures in our Sustainability Statement on page [151](#) onward. These include, among other things, our Responsible Care Management System and, as part of this, our global standards in terms of environmental protection, product safety and transportation safety. BASF's position on water protection, our risk-based sustainability management for procurement and the Supplier Code of Conduct can also be found there.

## Water protection in our production

We aim to reduce negative impacts on water availability caused by water abstraction in our own production. Likewise, we also strive to reduce water pollution from regular emissions to water. This requires a holistic approach and continuous control.

That is why we have established comprehensive management and control systems for our own production. BASF is actively involved in the International Council of Chemical Associations' (ICCA) global Responsible Care® initiative. Our Responsible Care Management System, based on the eponymous initiative, not only encompasses occupational health and safety requirements and standards (see page 278 onward), but also environmental protection. The responsible use of water as a resource is a core element of our Responsible Care Management System and an important part of our commitment to the United Nations' Sustainable Development Goals (SDGs). This is also reflected in our position paper on water protection. We use Responsible Care audits, including in areas such as environment (air, water, waste), to monitor compliance with our Responsible Care Management System.

» For more information on our position paper on water protection, see [basf.com/water](https://basf.com/water)

A key component of our strategy for many years now has been the introduction and implementation of sustainable water management, for which we have set a global target (see page 227). We have reviewed our water target in 2024 and assessed it as important for implementing our strategy. This is also consistent with recent scientific findings, such as the Planetary Boundaries reassessed in 2023 (Richardson et al. (2023); Stockholm Resilience Centre). We want to protect water as a resource, continuously improve water use efficiency and reduce emissions. These efforts focus on our Verbund sites and production sites in water stress areas.<sup>1</sup> We look at water availability, water quality and the impact of our water use on the environment and other users. For this, we use the standard of the Alliance for Water Stewardship (AWS) as guidance. AWS is a global multistakeholder organization that promotes the responsible use of water, which we are a member of.

Our water consumption is low compared with the total water volume sourced (see information on Water balance on page 229) and therefore not a material topic for BASF in terms of the double materiality assessment.

Our global standards and guidelines for water are defined in the Group-wide requirement Corporate Requirement Environmental Protection. Among other things, these stipulate that water protection concepts must be implemented at all production sites to prevent emissions and the pollution of surface or groundwater. The requirements also cover the aspects of process and transportation safety in order to prevent production and transport-related product spills and leakages into water bodies as effectively as possible. Our sites and Group companies are responsible for implementing and complying with internal requirements, accessible via an internal BASF database, and legal requirements. The Corporate Environmental Protection, Health, Safety & Quality unit in the Corporate Center conducts regular audits to monitor this. During these audits, a safety and environmental profile is created, which shows if we are addressing the existing hazard potential properly. If this is not the case, corrective measures are determined, which are to be implemented within a specific time frame depending on the identified hazard potential. We monitor this in follow-up audits, among other things. BASF's global network of experts shares information, insights and best practices on the responsible use of water on an ongoing basis. Our requirements and guidelines are continuously updated on a regular basis. To this end, we also exchange information with authorities, associations and international organizations.

<sup>1</sup> We define water stress areas as regions in which more than 40% of available water is used by industry, households and agriculture. Our definition is based on the Water Risk Atlas (Aqueduct 4.0) published by the World Resources Institute. For more information, see [wri.org/aqueduct](https://wri.org/aqueduct)

In developing our business strategies, we also consider the resilience of our business models with regard to economic, ecological and social aspects as well as their impacts, risks and opportunities. As part of our opportunity and risk management system, strategic risks connected with material economic, ecological and social matters are evaluated, among other things (for additional information, see page [87](#) onward). The strategies of our business units are updated on a regular basis. This is done either individually at business unit level or as part of the overarching divisional strategy and involves specialists from the business unit or operating division concerned and from our central strategy unit. In 2024, we have piloted a method to address material topics in the strategies of the business units over the next ten years. Depending on the extent of the strategy revision, resilience reviews, regulatory aspects and stakeholder expectations can be included to estimate future market developments. Upstream and downstream value chains can also be considered in the analysis. In addition, we use our TripleS methodology (Sustainable Solution Steering) to review the resilience of our product portfolio with regard to environmental and social aspects.

In the wake of advancing climate change, the resulting water shortages and extreme weather events, climate resilience measures are becoming increasingly important for our production (for more information on our risk management, see page [178](#) onward). To ensure our supply of raw materials and transportation via water, we rely on early warning systems and, at the Ludwigshafen site in Germany, for example, on special vessels for low water levels on the Rhine River. Further measures at our sites are aimed at reducing our demand for water, for example, through recycling, intelligent cooling water systems and water treatment. Depending on the subsequent use of the water (from cooling or production processes), varying levels of treatment may be required using sand filtration, membrane filtration or reverse osmosis. When water is reused for cooling processes, it is often cooled through evaporation in recooling plants before being used again.

#### Water protection in the value chain

We are also aware of and want to mitigate the negative impacts on water availability in our upstream and downstream value chains caused by water abstraction and consumption, as well as the deterioration of water quality from regular emissions to water.

Our procurement organization has established a global risk-based management system for our **upstream value chain** that specifies how we implement our due diligence processes. We have defined the standards for this in a global requirement. We continuously enhance this requirement and our structures and processes in order to adapt to changing conditions. Procurement requirements and targets are set centrally and are binding for all employees with procurement responsibility worldwide. We endeavor to ensure compliance with these guidelines using a multistage control process. The unit-specific risk management systems of our business units are supported and monitored during implementation according to minimum standards set by the Corporate Center units. The Corporate Audit unit, as the third instance involved, monitors the effectiveness and compliance with risk management. Our management processes are activated in the event of specific incidents (see pages [297](#) and [300](#)). Our expectations of suppliers are set out in our global Supplier Code of Conduct (see page [295](#)), which is part of our risk-based management system and integrated into our procurement conditions. It is based, among other things, on the Ten Principles of the United Nations Global Compact initiative and ICCA's Responsible Care® program and also includes the responsible use of water as a resource. When selecting suppliers and assessing new and existing supplier relationships, economic criteria and particularly ESG standards are relevant. We expect our suppliers to reduce water emissions and minimize impacts on water scarcity. We arrange for third parties to evaluate suppliers with a high

sustainability risk. Supplier assessment is mainly performed as part of the chemical industry's Together for Sustainability initiative (TfS), either through on-site audits by TfS-approved auditors or through sustainability assessments based on online assessments via the rating agency EcoVadis. Depending on business requirements, we perform our own Responsible Care audits at selected contract manufacturers if material risks have been identified with respect to environmental protection. This also includes water use.

In our **downstream value chain**, we continuously collaborate with our customers on innovations and the development of water-related solutions that are designed to enable their green transformation and make a significant contribution to sustainability (for more information on steering the sustainability performance of our product portfolio using the TripleS methodology, see page [161](#) onward). We offer our customers solutions that help purify water and use it more efficiently and reduce pollution.

We report transparently and comprehensively on how we use water. For instance, in 2024, we again participated in the program established by the nonprofit organization CDP for reporting on data relevant to climate protection on the topic of water. BASF again achieved leadership status with an A- rating in the final assessment. CDP evaluates how transparently companies report on their water management activities and how they reduce risks such as water scarcity. The assessment also considers the extent to which product developments can contribute to sustainable water management also at the customers of the evaluated companies.

In addition, we have established relevant global management systems in our downstream value chain, such as in the area of product and transportation safety. Our product stewardship experts identify potential risks related to transportation, handling, usage and disposal of our products and provide advice to minimize potentially negative impacts. We work continuously with all relevant stakeholders to ensure that our products do not pose any risk to people or the environment when used as intended and responsibly (for more information, see page [218](#)).

## Actions

### E3-2

Our actions in the area of sustainable water management are often decentralized activities, projects and initiatives. Like our management and monitoring systems, they aim to ensure continuous optimization and further development and fall within the responsibility of the sites and Group companies. This goes hand in hand with the BASF approach to sustainability steering (see page [152](#)). For this reason, we have not defined an action plan with central resource allocation for sustainable water management.

### Actions in our own production

An important part of our sustainable water management is the continuous analysis and the implementation of actions for improvement. This can include site-based projects to improve water efficiency or wastewater quality as well as off-site measures in collaboration with third parties to improve the water situation in the catchment area.

Thanks to our focus on operational excellence (see also page [190](#)), we continuously design our plants and processes to be more efficient and resource-saving. This creates direct incentives for investing in efficiency projects and contributes to reducing emissions.

Corresponding projects address all levels of the mitigation measure hierarchy: Prevent, reduce, recapture and reuse, restore and regenerate. The extraction, treatment, transportation and recooling of water is often associated with a high energy demand. We are constantly working to optimize our energy consumption and the amount of water we use, and to adapt to the needs of our operations and the environment.

In order to use water as efficiently as possible, we rely on measures such as intelligent cooling water systems, increased water reuse and multimodal transportation concepts with combined transportation methods. For example, process optimizations such as the use of modified valves or the recycling of low-temperature cooling water at the General Lagos site in Argentina have led to water savings of 22% since 2018. At our Verbund site in Freeport, Texas, we commissioned a membrane bioreactor for treating wastewater in 2023, which improved the capacity and cleaning performance of the wastewater treatment plant. In the medium term, the treated wastewater is to be reused, thereby reducing the need for freshwater. Depending on the local situation, we also implement actions together with other stakeholders. For example, at the Tarragona site in Spain, we are working with our water supplier AITASA and other companies to further expand wastewater reuse in the medium term. Through results such as reduced water use or the replacement of higher-quality water with alternative sources, our activities contribute to sustainable water management. At our Guaratinguetá site in Brazil, we have collaborated with local authorities, the Fundação Eco+ and other partners since 2011 on the Incentivo ao Produtor de Água program: Through improved soil management and the reforestation of primary forests, surface runoff and soil erosion in the Ribeirão Guaratinguetá catchment area have since been significantly decreased.

#### Actions along the value chain

We advocate the responsible use of water as a resource along the entire value chain.

We audit supplier compliance with environmental standards in the **upstream value chain** worldwide as part of our regular supplier assessments (see page [297](#)). Where improvement is necessary, we support suppliers in developing and implementing appropriate measures, such as the correct handling of wastewater. We have also been involved in a wide range of initiatives to promote sustainability in the supply chain, for example since 2016 in the Pragati project for an efficient water use concerning more sustainable farming of castor beans in India (see page [299](#)).

Another example is our effort with regard to lithium sourcing. Together with the BMW Group, Mercedes-Benz AG, Fairphone B.V., Daimler Truck AG and the Volkswagen Group, we have been a member of the Responsible Lithium Partnership since 2021. This initiative, which is scheduled to run until 2025, campaigns for the responsible use of natural resources in the Salar de Atacama salt flat in Chile. This region is home to the world's largest lithium brine reserves and a significant share of global production. With this in mind, the German Agency for International Cooperation (GIZ) was commissioned with organizing a local multistakeholder platform, also comprising Indigenous communities, on the water-related opportunities and risks of lithium and copper extraction and other commercial activities as well as with driving forward action plans. BASF participated in a study organized by BMW together with experts from the University of Alaska and the University of Massachusetts to examine the hydrological conditions in Salar de Atacama. The results of this study are incorporated as an important component of the Responsible Lithium Partnership's work.

We also impact the availability of water resources in our **downstream value chain**, for example, through our products, solutions and their application.

With TripleS, we have established a steering tool for our product portfolio based on the sustainability performance of our products (for more information, see page 161). Based on this, we review our relevant global product portfolio continuously, but at least every four years. In 2022, we updated this method in order to further steer our product portfolio toward climate protection, climate neutrality and circular economy. In addition to implementing new regulatory requirements, we are actively driving forward the adaptation and further development of our production processes with the aim of reducing the environmental footprint of our products. Part of the evaluation process includes criteria for water protection, such as more efficient water use in production, new approaches to water treatment and lower water consumption. If products with sustainability concerns are identified, we classify them as part of TripleS either as Monitored, or in the case of significant concerns, as Challenged. A description of potential actions is mandatory for both categories. In the event of significant challenges, we develop action plans to optimize the products or replace them with alternative solutions. These include research projects and reformulations to optimize products or replace them with alternative products. To make our portfolio more sustainable, we are generally phasing out all Challenged products within five years of their initial classification.

» For more information on TripleS, see [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering)

Agriculture is one of the highest water-consuming sectors worldwide. That is why we offer our customers targeted solutions to help use water more efficiently, such as yield-enhancing products, water-saving cultivation methods and crops that require less water. A specific example is the artichoke variety with the name Green Queen, which, compared with conventional varieties, delivers higher yields with the same water usage. The implementation of new crop management for Green Queen can reduce water demand by 20% to 35%. Green Queen is mainly sold in Spain and the United States, where the regions of Murcia and California are increasingly affected by periods of drought. We are currently conducting a project for Green Queen to evaluate a combined solution of AI technology and genetics.

We work with numerous partners along the value chain and from civil society to protect water as a resource, deepen our knowledge and share it with others. We are a member of the Alliance for Water Stewardship (AWS), whose 2022–2030 strategy aims for sustainable water use and promotes collective action to tackle shared water challenges. In addition, we are continuously involved in networks such as the Alliance to End Plastic Waste (AEPW), the World Plastics Council and Operation Clean Sweep® to prevent waste from plastic production from entering water bodies. In South America, we support sustainable development activities, including in the area of water, through Fundação Eco+.

## Global target

### E3-3

Our aim is to introduce sustainable water management (for more information, see E3-1 on page 222) at our Verbund sites and at all production sites in water stress areas<sup>2</sup> by 2030, covering around 90% of BASF's total water abstraction. Water stress areas are identified based on the latest water stress data in line with the World Resources Institute's Water Risk Atlas.<sup>2</sup>

<sup>2</sup> We define water stress areas as regions in which more than 40% of available water is used by industry, households and agriculture. Our definition is based on the Water Risk Atlas (Aqueduct 4.0) published by the World Resources Institute. For more information, see [wri.org/aqueduct](https://wri.org/aqueduct). Our water target also continues to take into account the sites that we identified as water stress sites in accordance with Pfister et al. (2009) prior to 2019, as well as water stress sites according to Aqueduct 3.0.



In 2024, we achieved 65% of our target<sup>3</sup> (2023: 57%).<sup>4</sup> Sustainable water management was introduced at eight additional sites (2023: seven sites).

The focus of sustainable water management is on efficient water use, not necessarily on reducing water consumption, since the latter, compared with the total volume of water sourced, is not material for BASF in terms of the double materiality assessment. Efficient water use considers, among other things, reuse and the use of alternative or less sensitive water sources.

As part of sustainable water management, our sites regularly assess the water situation in the catchment area, particularly when changes are made to the production infrastructure, but no later than every five years. We look at water availability, water quality and the impact of our water abstraction on the environment and other users. We use the AWS Standard as guidance.<sup>5</sup> This raises awareness of potential risks and potential impacts such as water scarcity for the population.

Our commitment to sustainable water management also extends to our value chains. We have set out our expectations of suppliers in the global Supplier Code of Conduct (see page 295) which, among other things, covers the areas of the Responsible Care® initiative, including the responsible use of water as a resource. During the reporting year, we refined our target to drive forward sustainability in the supply chain in an even more targeted manner (for additional information, see page 31). For the downstream value chain, we have established TripleS as a tool for steering our product portfolio based on the sustainability performance of our products (for more information, see page 161). We aim to reduce the environmental footprint of our products, also taking into account criteria for water protection.

» For more information on TripleS, see [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering)

We discuss the sustainability topics that are material for BASF at regular meetings with external stakeholders, forming part of our strategic stakeholder engagement activities, and in discussions with investors. Through this, the expectations of our stakeholders are continuously taken into account when setting potential targets.

<sup>3</sup> Our water target is not subject to any legally binding requirements.

<sup>4</sup> By including water stress sites according to Aqueduct 4.0, the number of sites required to implement sustainable water management increases. As a result, the implementation status for 2023 has decreased and been adjusted accordingly. The number of sites relevant to the water target is reevaluated each year, so the current year corresponds to the reference year.

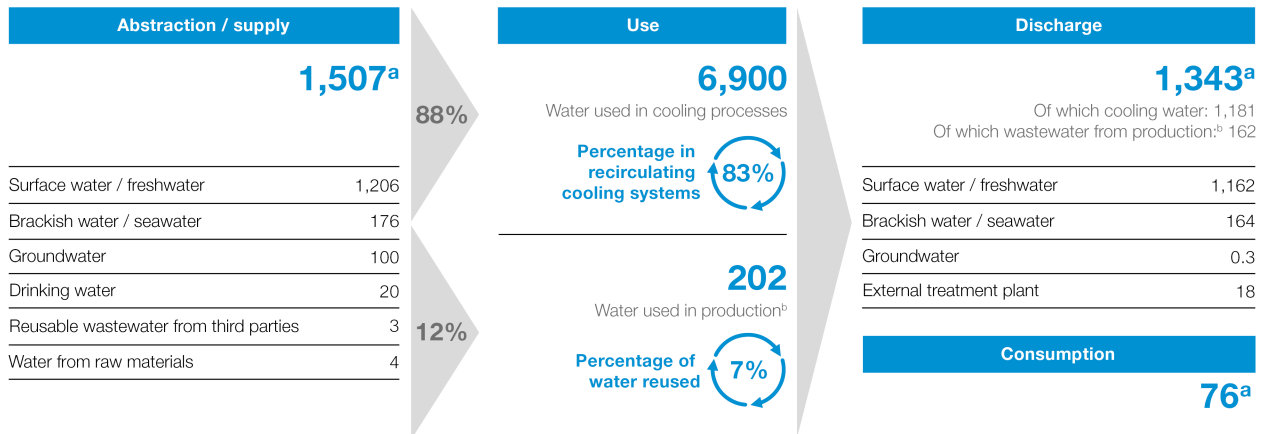
<sup>5</sup> As described on [aws.org](https://aws.org), the AWS Standard aims for the following outcomes: good water governance, sustainable water balance, good water quality, important conservation sites, and secure access to water and sanitation.

## Metrics

E3-4

### Water balance of the BASF Group in 2024

Million cubic meters per year



<sup>a</sup> The difference between the volume of water abstracted and the volume discharged is primarily due to the limited accuracy in measuring water discharge.

<sup>b</sup> Total from production processes, sanitation, rinsing and cleaning in production.

Our **water abstraction** in 2024 amounted to 1,507 million cubic meters. This demand was covered for the most part by freshwater such as rivers and lakes. At some sites, we use alternative sources such as treated municipal wastewater, brackish water or seawater. A small part of the water we use reaches our sites as part of raw materials and steam, or is released in our production processes.

**Water use** in 2024 totaled 7,102 million cubic meters. The total volume of recycled and reused water in 2024 amounted to 5,734 million cubic meters.

We predominantly use water for cooling purposes (88% of total water abstraction), after which we discharge it back to our supply sources with no product contact. We reduce our water abstraction for cooling purposes mainly by using recooling plants. Around 12% of our total water abstraction is used in our production plants, for example, for extraction and dissolution processes or for cleaning. Here, too, we reduce our demand for water by reusing wastewater. Most of the water used for production purposes is discharged back to water bodies after being treated in our own or third-party wastewater treatment plants.

The BASF Group's **water consumption** describes the amount of water that is not discharged back into a water body, meaning that it is no longer available to other users. We calculate water consumption as the sum of evaporation in cooling processes, water content in our sales products and water consumed otherwise at our sites. Consumption is mainly attributable to the evaporation of water in recirculating cooling systems. A smaller amount is from the water contained in our products. Water consumption in 2024 amounted to around 76 million cubic meters.

In 2024, around 30% of our production sites were located in water stress areas.<sup>6</sup> These sites accounted for 19 million cubic meters, representing 1% of BASF's total water abstraction. Water consumption at these sites amounted to 9 million cubic meters.

Production sites located in areas affected by high or extremely high overall water risk<sup>6</sup> (23% of our sites in 2024) accounted for 13 million cubic meters, or 1% of BASF's total water abstraction. Their water consumption in 2024 amounted to 6 million cubic meters.

<sup>6</sup> Aequeduct 4.0 was used to identify sites with high or extremely high water stress and/or overall water risk.

A general description of our measurement methods and a description of the data collection process, as well as general information on the estimation or rounding of individual sustainability parameters, can be found in the General Disclosures section of our Sustainability Statement on page [150](#) onward.

Based on net revenue (in million €) and water consumption (in cubic meters), water intensity in 2024 amounted to 1,171 cubic meters per million € net revenue.

## E4 Biodiversity and Ecosystems

### ESRS E4

Biodiversity is under threat. It is the foundation for functioning ecosystems. As a chemical company, we use valuable natural resources such as water, air and soil. At the same time, our business activities have an impact on these resources, for example through emissions to the environment or the sourcing of renewable raw materials.

### ESRS 2 IRO-1

As part of the double materiality assessment that we conducted for 2024 (see page [167](#)), the topic Biodiversity and Ecosystems was defined as material. When performing the assessment, we drew on three sources of information, in particular:

- Assessments of various stakeholders and assessments taken from specialist literature
- Assessments by BASF experts
- Digital sources

The digital sources were evaluated using big data and AI analysis tools. We also used platforms such as the Biodiversity Risk Filter (BRF) of the World Wide Fund For Nature (WWF) and the Integrated Biodiversity Assessment Tool (IBAT) of the International Union for Conservation of Nature and Natural Resources (IUCN). In 2024, we also discussed our approach to biodiversity in our Nature Advisory Council, a body dedicated to topics related to protecting biodiversity and ecosystems. The Nature Advisory Council supports BASF in obtaining an independent societal perspective on our activities in relation to nature and biodiversity topics. At the end of 2024, the Nature Advisory Council comprised five members from the field of science, relevant value chains and multilateral organizations. Affected communities were not involved in the identification of material topics for the Biodiversity and Ecosystems cluster.

### ESRS 2 SBM-3

As a chemical company, our business activities interface with nature, and therefore with biodiversity and ecosystems, in three key areas. These are:

- Sourcing of raw materials
- Operation of production plants
- Attributes of our products

In order to better categorize and understand the impact of BASF on nature at our production facilities, in their immediate surroundings and throughout the value chain, we use the five drivers of biodiversity loss as defined by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Land-use change, pollution, climate change, overexploitation of resources, and invasive species. We also followed this logic in our double materiality assessment (see page [167](#)).

As the topic categories Climate Change and Pollution are examined at length in the chapters E1 Climate Change (from page [178](#) onward) and E2 Pollution Prevention (see page [205](#) onward), they are not discussed in detail in this chapter. The use of water as a resource is also explored in detail separately (from page [221](#) onward). We did not examine the driver “invasive species” more closely, as we do not consider it relevant for BASF.

Thus, this chapter focuses on the topics surrounding land use and the impacts of our business activities on the land. No significant impacts were identified with regard to desertification and soil sealing. We also

consider the condition of the natural environment in proximity to our relevant sites and in relevant value chains (see page [233](#)).

Our double materiality assessment indicates six material impacts on biodiversity and ecosystems as well as one associated material risk for BASF (see tables below). We systematically document opportunities and risks as part of our general opportunity and risk management (for additional information, see page [87](#) onward).

### Results of the double materiality assessment for E4 Biodiversity and Ecosystems: Impacts

Impacts	Evaluation	Placement in the value chain	Description
Need for land use due to the cultivation of renewable raw materials	Negative	Upstream value chain	By procuring renewable raw materials, we provide impetus for their cultivation. This cultivation alters land use and can negatively impact ecosystems.
Impact on land degradation due to the sourcing of raw materials	Negative	Upstream value chain	By sourcing raw materials, we provide impetus for their cultivation and extraction. In some cases, this leads to land degradation.
Land use by BASF sites	Negative	BASF's own operations	BASF uses many plots of land for various purposes, such as offices, production and agricultural testing grounds. Soil sealing, especially due to production plants in the chemical industry, represents a significant land use type.
The loss of biodiversity may be facilitated by the use of crop protection products	Negative, potential	Downstream value chain	In the downstream value chain, the use of crop protection products across large agricultural areas may have a negative impact on biodiversity.
The use of industrial chemicals and their distribution in the environment may have a negative impact on species	Negative, potential	Downstream value chain	The use of industrial chemicals and their distribution in the environment may have a negative impact on species and biodiversity.
More sustainable intensification of farming	Positive	Downstream value chain	The use of our products, including crop protection products, in agriculture enables farmers to increase their productivity, thus supporting food production.

### Results of the double materiality assessment for E4 Biodiversity and Ecosystems: Risks and opportunities

Risk	Evaluation	Description
Regulatory requirements for the marketing of chemicals	Negative	Regulatory developments, prompted by actual or anticipated impacts of our products on the state of species, their population sizes or their risk of extinction, impact our opportunities to market chemicals.

## Strategy and governance

### E4-1

We are currently undergoing a transformation toward climate neutrality and observance of the planetary boundaries. To this end, we have set ourselves ambitious targets (see page [31](#)) that impact our business models and our strategy as well as how they interface with nature, biodiversity and ecosystems.

- We strive to use more and more renewable alternatives to fossil raw materials and energy.
- We aim to continuously reduce emissions in the natural world and improve our resource use on an ongoing basis.
- We manage our product portfolio with regard to the product-related contributions to greater sustainability (TripleS: Sustainable Solution Steering, see page [161](#)).

These three areas of transformation are also relevant to many of our stakeholders, such as investors, customers, legislators, suppliers, insurers and nongovernmental organizations. We actively seek out partnerships with relevant interest groups and organizations worldwide, for example in the Taskforce on Nature-related Financial Disclosures (TNFD), to expand our knowledge, to raise awareness about biodiversity and to drive necessary actions forward. In the event that our business activities negatively impact or could negatively impact affected communities, we involve them or their representatives in one of our stakeholder engagement formats (see page [308](#)).

We generally consider the resilience of our business models at the level of our business units or operating divisions along the value chain (see page [169](#)). The current resilience of our business models in relation to biodiversity and ecosystems was examined in 2024 in preparation for our double materiality assessment. In our Nature Advisory Council, we discussed aspects that were part of this assessment, such as our approach to renewable raw materials. Through the use of big data analysis, stakeholder viewpoints were also incorporated into our considerations. The assessment was conducted under the basic assumption of continuity concerning our current raw materials base. The examination focused on those business models connected with the impacts identified in this topic category: The use of industrial chemicals and the use of crop protection products. Overall, we assess our resilience level as high. As a chemical company, we still mainly use fossil raw materials. Our sourcing of renewable raw materials is diversified, leading to low dependence on biodiversity and ecosystem services. We regard the availability of water in sufficient quality and quantity as an important, but not material, dependency on ecosystem services. This dependency is documented as part of our opportunities and risk management and is addressed by means of our sustainable water management (see page [225](#)). We therefore regard our physical risks as low.

We actively pursue actions (see page [248](#)) to reduce our dependency on fossil-based technologies and raw materials. This increases our dependency and impacts on biodiversity and ecosystems. The associated transitory and systemic risks have been considered and assessed as not material.

In respect of our business model in the field of agriculture, the long-term market demand for crop protection products and support in food production results in a high level of resilience. The transitory and systemic risks associated with this line of business have been considered and assessed as important but not material.

With a view to avoiding impacts on nature, we are guided by the risk mitigation hierarchy. If impacts cannot be minimized, we aim to reduce them, support the restoration of nature or contribute to the transformation of value chains toward better environmental outcomes.

## Explanation of material impacts

### Impact of land use on the sourcing of raw materials

Human use of land has impacts on biodiversity and the conservation of ecosystems. We pursue our ambitious climate targets (see page [194](#)) and seek to increasingly offer customers products that make a positive contribution to sustainability in the value chain (see page [161](#)). This includes partially replacing fossil raw materials with renewable alternatives. This has a positive impact on the carbon footprint of the product concerned. At the same time, however, the cultivation of renewable raw materials must be considered from a sustainability point of view. If plants are grown in monocultures or if forests are cleared to enable cultivation, this has a negative impact on biodiversity and ecosystems. This may lead to land degradation. Therefore, our risk assessments when sourcing renewable raw materials take into account the protection of biodiversity and ecosystems, as well as social factors such as working conditions (see page [298](#)) and food security. We carefully weigh advantages and disadvantages, for example with life cycle analyses. Moreover, we seek dialog with our stakeholders to identify conflicting goals. We also take into consideration recognized certification standards in our decisions, such as the Roundtable on Sustainable Palm Oil (RSPO). For our biomass balance portfolio (see page [250](#)), we only source renewable raw materials that are certified in accordance with recognized standards, such as the International Sustainability and Carbon Certification (ISCC) or the REDcert scheme for sustainable biomass.

Since 2023, our Care Chemicals division has been publishing a comprehensive Responsible Sourcing Report, which has replaced the previously published Palm Progress Report. This report provides an annual summary of our activities and progress in the pursuit of greater sustainability and transparency in the palm value chain and in the value chains of other renewable raw materials.

Through the sourcing of raw materials that have been mined or otherwise extracted, we exert a significant influence on the degradation of land and on the condition of ecosystems. Mining can result in soil erosion, a loss of biodiversity and the pollution of water sources. The BASF procurement requirement ensures that environmental and social criteria are taken into account during procurement. We expect our raw material suppliers to meet environmental and social requirements (see page [239](#)). By fostering the circular economy, we are able to reduce demand for newly mined raw materials. BASF is involved in various projects to improve sustainability in the supply chain, such as in connection with the recycling of lithium-ion batteries. The company's Verbund concept enables the efficient use of raw materials by using a plant's by-products as feedstocks in other processes, thereby saving raw materials and energy.

### Land use by BASF sites

The operation of our sites represents land use. Our sites comprise production plants, research and office buildings and agricultural testing grounds, among other things. We utilize a total surface area of approximately 43,000 hectares, of which around 23%<sup>1</sup> is sealed.

In order to assess the impact of our sites on biodiversity and ecosystems more closely, we have focused on our production sites, as pure office locations are less relevant by comparison. Only about a quarter of our around 1,000 sites worldwide are production plants.

<sup>1</sup> We regard land belonging to agricultural businesses and mining locations as unpaved, whereas all other areas are classed as paved. Even if the land is classed as paved, there are unpaved areas around buildings.



Using the WWF Biodiversity Risk Filter (BRF<sup>2</sup>), an internationally recognized and science-based platform, we analyzed our production sites on the basis of 33 indicators included in the filter to identify **impacts and dependencies** in the area of physical risks and in respect of reputationally harmful topics. Our further considerations centered on the potential physical impacts. The BRF analysis indicated that BASF's greatest **dependency** lies in the topic category Water, both in terms of the availability and the quality of water for our production sites. For one group of sites, a potential impact was identified due to tropical cyclones. Ranked third was the risk of extreme heat. BASF already addresses these three dependencies as part of its site management.

The BRF analysis pointed to pollution as the greatest potential **impact** of BASF caused by our sites. However, this figure was considerably lower than the BRF estimate for the chemical sector overall. We discuss the proximity of our sites to protected areas further on page [245](#).

For the management of our production facilities and their plants, we aim to act as a good neighbor and are striving to conserving biodiversity and ecosystems and to minimizing negative impacts on the environment. We generally keep our product-related emissions to air, water and soil as low as possible at these sites, avoid and reduce waste and manage remediation sites responsibly.

For more information on how we prevent pollution, see page [205](#) onward; for more information on how we handle water, see page [221](#) onward.

### Identification and selection of material sites

#### [ESRS 2 SBM-3](#)

The material BASF sites for biodiversity and ecosystems were identified based on the results of the double materiality assessment and using the methodological framework for the drivers of biodiversity loss<sup>3</sup> (see page [231](#)), as adapted for BASF, as well as the insights gained from the BRF analysis on impacts and dependencies.

To determine our material sites, we began by defining sites with active production operations as relevant for the topic category and then evaluated these sites using a set of indicators. As land use has been defined as a material impact, one indicator was the size of a site compared with all other sites.

We assigned further indicators to the sites using our environmental database if they allowed statements to be made on the drivers of biodiversity loss that are relevant to BASF. These were emissions making a contribution to eutrophication<sup>4</sup> and acidification (pollution), greenhouse gas emissions (contribution to climate change) and water supply (potential overuse of natural resources). The sites with the highest entry values for each indicator were then further considered. The most important dependency for our material sites is the quality and quantity of water available. Here too, the sites were compared with each other and those with the highest values determined. Finally, the sites exhibiting at least four markers (>50% of indicators considered) were identified.

This method enables us to identify the material sites with a high degree of alignment with the drivers of biodiversity loss. The limitation of this method lies in the fact that, by definition, it only uses comparisons between our sites and thus relative contributions. We will continuously review whether threshold values for indicators can be applied in the future that go beyond BASF.

<sup>2</sup> The BRF is a free, science-based online tool that helps companies and financial institutions around the world to recognize and evaluate risks in the area of biodiversity by processing relevant biodiversity data and associating this data with companies' own sites and supply chains; in doing so, it uses 33 indicators in the categories of ecosystems, biodiversity and ecosystem services. The BRF provides indicators and geolocation-specific risk assessments for site determination purposes.

<sup>3</sup> This methodological framework was developed and documented by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). The IPBES is a multilateral agency of the United Nations (U.N.) and collects global scientific data, analyzes this data and indicates political courses of action.

<sup>4</sup> The buildup of nutrients in originally low-nutrient bodies of water, for example due to fertilizer contamination with adverse consequences for the ecosystem.

The following table shows a list of material sites based on this analysis:

### Material BASF sites<sup>a</sup> for biodiversity and ecosystems

Site	Relative contribution to drivers of biodiversity loss (compared with all sites)					
	Land use	Emissions I eutrophication of air	Emissions II eutrophication of water	Emissions III acidification of air	Climate change	Water use
Antwerp, Belgium, BASF Antwerpen N.V.	x	x	x	x	x	x
Chalampé, France, Butachimie SNC		x	x	x		x
Freeport, Texas, BASF Corporation	x	x		x	x	x
Geismar, Louisiana, BASF Corporation	x	x	x	x	x	x
Ludwigshafen, Germany, BASF SE	x	x	x	x	x	x
Port Arthur, Texas, BASF TotalEnergies Petrochemicals LLC		x		x	x	x
Yeosu (formerly Yecheon, Yosu), South Korea, BASF Company Ltd.		x	x	x	x	

<sup>a</sup> All sites under BASF operational control were considered.

The following table shows how these sites are embedded within local ecosystems.

### Material BASF sites<sup>a</sup> and their ecological context

Embedding in ecological neighborhood						
Site	Biome	Ecoregion	Biological intactness indicator (BII)	Biodiversity mean species abundance (MSA)	In proximity to biodiversity sensitive areas (BSA)	Documented negative effects on biodiversity sensitive areas (BSA)
Antwerp, Belgium, BASF Antwerpen N.V.	Temporary deciduous and mixed woodland	European Atlantic mixed woodland	28%	26%	Yes	No
Chalampé, France, Butachimie SNC	Temporary deciduous and mixed woodland	Western European deciduous woodland	36%	26%	Yes	No
Freeport, Texas, BASF Corporation	Tropical and subtropical grasslands, savanna and shrubland	Western Gulf Coast grasslands	21%	6%	No	No proximity to biodiversity sensitive areas (BSA)
Geismar, Louisiana, BASF Corporation	Temperate grasslands, savanna and shrubland	Southeast U.S. pine savannas	35%	26%	No	No proximity to biodiversity sensitive areas (BSA)
Ludwigshafen, Germany, BASF SE	Temporary deciduous and mixed woodland	Western European deciduous woodland	28%	26%	No	No proximity to biodiversity sensitive areas (BSA)
Port Arthur, Texas, BASF TotalEnergies Petrochemicals LLC	Tropical and subtropical grasslands, savanna and shrubland	Western Gulf Coast grasslands	22%	26%	No	No proximity to biodiversity sensitive areas (BSA)
Yeosu (formerly Yeocheon, Yosu), South Korea, BASF Company Ltd.	Outside the ecoregion data set	Outside the ecoregion data set	29%	26%	No	No proximity to biodiversity sensitive areas (BSA)

<sup>a</sup> All sites under BASF operational control were considered.

### Crop protection products and their impact on biodiversity and land

The agricultural sector, especially the intensive cultivation of large areas of land, including the use of crop protection products, competes with the conservation of natural habitats with a high level of biodiversity. Farms play an important role in this regard: They not only need to focus on their productivity and yields, but also meet societal and consumer expectations and protect the environment. Additional measures to promote biodiversity in the agricultural sector can have positive effects and help to reduce negative impacts. BASF has been active in this area for many years and founded the BASF Farm Network, which brings together farmers, environmental organizations, universities and companies. Its mission is to demonstrate the coexistence of farming and nature by means of practical experiments. The network supports programs that reconcile agricultural production with the protection of soil and the environment. It helps farmers to increase biodiversity on their fields and to use water and soil sustainably.

Improper use of crop protection products may have a negative impact on human health and the environment. We are therefore focusing our smart stewardship activities on education and continuously improving our solutions for farmers. Alongside aspects such as efficacy and productivity, this includes safe use by our customers and impact on the environment. We consider the entire life cycle of our products – from research and development to their proper use and disposal.

Crop protection products and seeds are highly regulated at national and international level, which leads to strict requirements for registering and re-registering active ingredients and crop systems. Regulatory approval is only granted after comprehensive evaluation has shown that our products are safe for humans, animals and the environment when used according to label instructions.

### **Industrial chemicals and their impact on biodiversity**

Emissions of industrial chemicals can have direct and indirect impacts on biodiversity and ecosystems. Direct impacts occur where chemicals directly affect organisms or habitats. Indirect impacts may occur when chemicals enter the environment and build up within the food chain and/or environment or adversely affect habitats. These impacts differ depending on which chemical has entered the environment and in what concentration, and over what period. It is important to consider the potential impacts and to take suitable measures to minimize the environmental impacts.

We work continuously to reduce the environmental impacts of our products and processes. At the same time, we continue to steer our product portfolio toward sustainability in accordance with our TripleS methodology (Sustainable Solution Steering, see page [161](#)). As part of TripleS, we also evaluate all relevant BASF products in terms of their impacts on biodiversity. We identify products that pose challenges in the area of sustainability; where these challenges are substantial, we develop action plans in order to optimize products or replace them with alternative solutions.

We see product safety as an integral part of all business processes, as an important element of our risk management and as an essential pillar of our commitment to Responsible Care®. We continuously work on ensuring that our products pose no risk to people or the environment when they are used responsibly and in the manner intended. A thorough safety and risk assessment enables us to serve markets with safe and more sustainable products that meet regulatory requirements while still responding to trends.

### **More sustainable intensification of farming as a positive impact**

The more sustainable intensification of farming through the use of modern crop protection products offers various benefits. It increases the productivity of farms by maximizing their yield per hectare and minimizing losses due to pests and diseases. It also helps to safeguard food supply by facilitating higher and more stable yields. The more efficient use of resources such as water and fertilizer improves the sustainability of agricultural production, which helps to protect the environment in the long term.

BASF's specific areas of action include the development of seeds and traits that are more resilient to climate change and enable higher yields, as well as biological and chemical crop protection solutions and digital technologies that help farmers to manage their fields more efficiently.

BASF's Agricultural Solutions division has set itself ambitious sustainability targets, including a reduction in CO<sub>2</sub> emissions per metric ton of crop yield and an expansion of digital technologies to more than 400 million hectares of agricultural land. These measures are part of a broader strategy that aims to increase agricultural productivity and sustainability while simultaneously conserving natural resources.

## Description of material risks

### Regulatory requirements for chemicals

The chemical industry is facing substantial risks due to changes to and reforms of regulatory requirements or approval conditions, including in relation to the areas of environmental protection, biodiversity and ecosystems. More stringent regulations may limit the approval, use or marketing of certain chemicals. BASF plans to respond to regulatory changes with a combination of proactive and reactive measures. These include continuous monitoring, analysis of the regulatory framework and steering of our product portfolio using the TripleS method. We also invest in research and development in order to continuously develop chemicals with improved toxicological and ecotoxicological properties and thus meet the new requirements. Moreover, BASF is committed to working closely with stakeholders and regulatory bodies to ensure that company practices comply with the latest standards.

### Governance approach

#### E4-2

Our governance in relation to the topic category Biodiversity and Ecosystems is based on three internationally recognized reference points:

- The five drivers of biodiversity loss as defined by IPBES (see page [231](#))
- The Kunming Montreal Global Biodiversity Framework (GBF) and its target of reducing biodiversity loss and reversing the trend by 2030
- The United Nations' Sustainable Development Goals (SDGs), including Zero hunger (SDG 2) and Life on land (SDG 15)

Governance in respect of the drivers Climate Change, Pollution and Water is described in the respective standards and therefore not elaborated upon here (Climate Change, see page [182](#) onward; Pollution Prevention, see page [207](#) onward; and Water, see page [222](#) onward).

We have implemented a variety of governance approaches with a view to minimizing our impacts on biodiversity in the area of land use. For explanations of the policies to which we make repeated reference, see the General Disclosures chapter of our Sustainability Statement on page [151](#). This chapter includes explanations regarding application, accountability, impacts in the value chain, global applicability, accessibility to stakeholders and engagement thereof. Examples include our position on the responsible sourcing of renewable raw materials, the BASF position on forest protection and our global environmental protection standards. The Corporate Environmental Protection, Health, Safety & Quality unit in the Corporate Center conducts regular audits to monitor compliance with internal environmental protection requirements. We will continuously further develop our governance, including with regard to protecting biodiversity in the areas around our sites. As the double materiality assessment did not identify any material dependencies, opportunities or physical/transitory risks in this topic category, our policies do not refer to it.

### Sourcing of renewable raw materials

We have laid down our expectations of our suppliers with regard to environmental, labor and social standards in the supply chain as well as our commitment to preserving biodiversity in the **Supplier Code of Conduct**. We expanded our procurement requirement in 2024: With our **principles for the**

**responsible sourcing of renewable raw materials**, we are, among other things, committed to stopping or reversing biodiversity loss within our sphere of influence. The new principles are firmly embedded in our strategic and procurement processes, the aim being to put the BASF raw materials portfolio on a sustainable footing. We endeavor to ensure compliance with these guidelines using a multistage control process. (see page [295](#)).

Palm oil, palm kernel oil and their derivatives are some of our most important renewable raw materials. We mainly use these to produce ingredients for the cosmetics, detergent, cleaner and food industries. There is a risk that forest areas are cleared to create farmland for the production of palm and palm kernel oil. For this reason, we use the internet platform palmoil.io, provided by the technology company MapHubs, to regularly monitor deforestation activities and other possible breaches of regulations at our suppliers' sites. Based on our Supplier Code of Conduct, we have defined our expectations of suppliers in the palm-based value chain in a supplementary global procurement policy (**BASF Palm Sourcing Policy**). These address, among other things, certification standards, traceability, environmental aspects connected with the observance of workers' rights and the rights of Indigenous peoples, as well as the inclusion of smallholder structures. Third-party certification in accordance with standards such as those of the Roundtable on Sustainable Palm Oil (RSPO) enables us to take biodiversity-related criteria into account when sourcing raw materials. The monitoring of deforestation activities and the achievement of our targets when sourcing certified raw materials help us to monitor compliance with the policy.

When using biological resources, we adhere to the provisions of the international Nagoya Protocol. This supplementary agreement to the U.N.'s Convention on Biological Diversity regulates access to genetic resources and benefit sharing. It sets out obligations (for example, compensation payments) for the users of genetic resources such as plant-based raw materials. We use internal control mechanisms such as Responsible Care audits to monitor compliance with these standards.

Our global **position on forest protection** sets out our commitment to preserving biodiversity in areas of High Conservation Value such as High Carbon Stock forest areas and peatlands in the procurement of renewable raw materials. We have also set out our expectations on this topic in the global Supplier Code of Conduct (see page [295](#)), which is part of our purchasing conditions. The unit-specific risk management systems of our business units are supported and monitored during implementation according to minimum standards set by the Corporate Center units. The Corporate Audit unit, as the third instance involved, monitors the effectiveness and compliance with risk management. Moreover, forest protection in accordance with this position is addressed when making investment decisions. We will adapt this position in 2025, incorporating the EU Deforestation Regulation (EUDR). In 2024, BASF once again participated in the "Forests" evaluation, provided by nonprofit organization CDP and achieved a grade of A-, thereby once again attaining leadership status. The assessment is conducted based on detailed insights into the palm value chain and activities that impact ecosystems and natural habitats.

### **BASF sites and production plants**

We are deeply committed to environmental protection and sustainability at our sites. The aim is to minimize the impact of production on people and the environment and to continuously improve. We do not have dedicated policies for the protection of biodiversity in proximity to our sites, but instead use our comprehensive Responsible Care Management System. Alongside global requirements and health and safety standards (for more information, see pages [207](#) and [278](#)), this also covers environmental protection. We have defined our global standards for emissions to air and water in Group-wide requirements, the implementation and compliance of which is the responsibility of the sites and Group

companies. Among other things, these stipulate that water protection concepts must be implemented at all production sites in order to prevent unforeseen emissions and the pollution of surface or ground water. The Corporate Center unit Environmental Protection, Health, Safety & Quality conducts regular audits to monitor compliance with internal requirements that are part of the Responsible Care Management System.

BASF sets stringent standards for the exploration and development of new sites and, among other things, incorporates requirements for environmentally friendly development and the inclusion and protection of nature and ecosystems in accordance with our Responsible Care Management System.

### Impacts in the downstream value chain

Through our commitment to the objectives set forth by the Responsible Care® initiative of the International Council of Chemical Associations (ICCA) and our own global environmental protection standards, we undertake to continuously minimize negative impacts of our products on health, safety and the environment and to optimize our products on an ongoing basis. For more information, see the chapters E2 Pollution Prevention (see page [205](#)) and E3 Water (see page [221](#)).

Before our products are launched on the market, they undergo various tests and assessments – depending on legal requirements and their application profile. These tests enable us to identify potential hazard characteristics as well as health and environmental risks at an early stage. Based on these results, we derive precautionary and protective measures and develop recommendations for safe handling (see page [214](#)).

In the area of crop protection, we further follow international standards, such as the International Code of Conduct on Pesticide Management and the Principles of Integrated Pest Management. We evaluate our products and solutions in crop protection and seeds throughout the entire research, development and registration process for potential risks and impacts to the ecosystems in which they are used.

## Actions

### E4-3

We take actions in a variety of areas to ease the pressure on biodiversity and ecosystems or to impact them positively. We consider these to be key measures:

- The steering of our product portfolio toward more sustainability through TripleS
- Our measures concerning the sourcing of certified palm-based raw materials

Further measures outlined in the following chapter often represent locally organized activities, projects and initiatives. They have not been assigned to any centrally managed action plan.

Measures in the topic categories Climate Change and Pollution are described in the chapters E1 Climate Change (see page [189](#) onward) and E2 Pollution Prevention (see page [211](#) onward). Our actions concerning the protection of water as a resource are also discussed separately (see page [225](#) onward).

### Sourcing of renewable raw materials

We are involved in a various initiatives in our upstream value chain to manage the sourcing of renewable raw materials in a way that protects local biodiversity. Take palm-based raw materials, for example: For the first time in 2023, our Care Chemicals division published a comprehensive Responsible Sourcing Report, which replaces the previously published Palm Progress Report. The third edition of this report will be published at the beginning of 2025. Here, we report annually on our measures and progress toward more sustainability and transparency in the palm value chain as well as further renewable raw materials value chains. We have been a member of the **Roundtable on Sustainable Palm Oil (RSPO)** for 20 years now and contribute to further national and international initiatives, such as the German Forum for Sustainable Palm Oil (FONAP) and the organization High Carbon Stock Approach (HCSA).



We source most of our palm-based raw materials from Malaysia and Indonesia. As a study conducted for the European Commission shows, smallholders account for around one-third of the total volumes produced there. Through our involvement in local initiatives, we aim to expand our supplier base for RSPO-certified palm products while simultaneously bolstering smallholder structures and sustainable production methods that help to protect local biodiversity. Since 2023, we have been working in partnership with a leading natural cosmetics manufacturer and the Indonesian nonprofit organization Kaleka to support smallholders in Central Kalimantan. The aim is to promote regenerative agricultural methods as well as to help establish favorable political framework conditions and regulations. We are also involved in a local project in Sumatra through the Forum for Sustainable Palm Oil.

Building on our involvement in these two initiatives, we joined forces with the nongovernmental organization Solidaridad in 2023 to promote sustainable palm oil and improve the living conditions of smallholders in Indonesia and Malaysia. In 2024, the program focused on developing viable and resilient production systems and on supporting integrative market access systems. Farmers are assisted in preparing for compliance with international standards and the certification of agricultural methods. The project seeks to train farmers in both countries with a view to fostering their continued involvement in the sector. In 2024, we entered into a further strategic partnership with the nonprofit organization Solidaridad and the organization Fedepalma, which represents the interests of many palm oil farmers and mills. The main objective of the project is to promote more sustainable palm oil production in Colombia in the long term by implementing improved and more sustainable growing practices among local producers.

We have developed a grievance mechanism for our palm value chain that reflects our commitment to the No Deforestation, No Peat and No Exploitation (NDPE) policy and that encompasses both direct partners and third-party suppliers. In the event of violations, we take action up to and including contract termination. In our decisions, we also take into account results from the grievance mechanism of the **Roundtable on Sustainable Palm Oil (RSPO)**.

We are also driving the market transformation toward certified, sustainably sourced oleochemicals for another renewable raw material: coconut oil. We use coconut oil to manufacture ingredients for products such as detergents, cleaning agents and cosmetics. We have, for example, certified our production sites in Cassina Rizzardi, Italy, and Zona Franca, Spain, under the Rainforest Alliance Mass Balance Coconut scheme. As a result, BASF offers certified sustainable ingredients for personal care products on the basis of coconut oil.

» For more information on our voluntary palm commitment and our palm grievance mechanism, see [basf.com/en/palm-dialog](https://basf.com/en/palm-dialog)

### BASF sites and production plants

We continuously optimize the **production processes** at our sites. This includes initiatives to improve energy efficiency (see page [190](#)), reduce emissions to air and water and avoid waste (see pages [211](#), [225](#) and [251](#)). We primarily rely on proactive measures and methods to protect biodiversity and only to a lesser degree on compensation measures. These are sometimes necessary, such as on account of conditions imposed by financial institutions and official bodies.

When it comes to investment decisions on the construction of new sites or the expansion of existing ones, the potential impacts on forests and other biodiversity criteria are systematically considered. In this regard, a decision may also be taken to institute compensatory measures, such as investments in local afforestation programs.

Continuous monitoring and documentation of emissions to air and water as well as the implementation of measures for improvement are an integral part of our environmental management. This is regularly audited by the Corporate Environmental Protection, Health, Safety & Quality unit in the Corporate Center. Our measures connected with reducing pollution are discussed on page [211](#) onward.

### Impacts in our downstream value chain

In our new corporate strategy, we focus on enabling our customers' efforts toward a green transformation with suitable BASF products. Today, we already use alternative raw materials and biomass in selected value chains in order to add sustainability attributes to our products. To increase transparency surrounding our product-specific greenhouse gas emissions and to implement our carbon reduction measures where they add the greatest value, we use a digital solution to calculate the carbon footprint of approx. 40,000 products on an ongoing basis (see page [194](#)).

By virtue of our TripleS sustainability evaluation method (see page [161](#)), we continuously steer the **BASF product portfolio** toward more climate protection, resource efficiency and circularity. Using this method, we systematically evaluate products in terms of their sustainability performance. Here, the aspect of biodiversity is also taken into account. As part of the TripleS evaluation, we identify products with high sustainability potential and products that do not fulfill the sustainability criteria. The latter products are systematically phased out of the portfolio or replaced by more environmentally friendly alternatives. Through our TripleS target, we annually review the effectiveness of these measures in the area of biodiversity and ecosystems.

Our Agricultural Solutions division offers farmers various solutions to promote biodiversity in agriculture while simultaneously enabling productive and efficient food production. These include, for example, various e-learning modules on biodiversity and agriculture. The interactive training sessions are available to interested farmers free of charge. We measure participation in our training and development programs annually. In the 2024 business year, we reached 199,427 people with the programs.

### Global targets

E4-4

Many of our sustainability-related corporate targets (for additional information, see page [31](#) onward) contribute to the protection of nature. These include our climate protection targets to reduce our greenhouse gas emissions (see page [194](#)), our targets in the area of resource use and circular economy (see page [252](#)) and our sustainable water management targets (see page [227](#)).

BASF has not set an explicit target for the topic category of Biodiversity and Ecosystems. We are reviewing whether we can derive a separate target for the topic category of Biodiversity and Ecosystems, either from various approaches or as an overarching ambition.

At regular meetings with external stakeholder representatives as part of our strategic stakeholder engagement, as well as in conversations with investors, we discuss the sustainability topics of material importance to BASF. Through this, the expectations of our stakeholders are continuously taken into account when setting potential targets.

In relation to our impact in connection with the sourcing of renewable raw materials, we set ourselves the target in 2015 of purchasing 100% certified palm oil and palm kernel oil starting 2020. We regard this target as a key indicator of whether our measures in the upstream value chain are successful. In recent years, we have met this target. Due to insufficient availability of RSPO-certified palm kernel oil, we were unfortunately unable to meet this target in 2024, posting a figure of 98.1% (2023: 100%). In 2024, we were able to trace approx. 97% of our total volume of our global palm footprint<sup>5</sup> back to the oil mill (2023: 96%).

In view of volatile market dynamics, we are adjusting our palm-specific targets. We will continue to source 100% certified sustainable palm oil and palm kernel oil to the extent that this is commercially available and possible. We are adjusting our aim of sourcing derivatives of palm oil and palm kernel oil as 100% certified products from 2025 (2024: 10.2%). Due to the lack of availability on the market, we are now aiming to achieve this target by 2030. RSPO certification will remain a preferred standard. If we consider alternative standards or systems, they must demonstrate an equally stringent focus on environmental protection, labor standards and human rights. In addition, we will strictly adhere to our responsible sourcing principles. Achieving our targets remains dependent on the availability of raw materials and economic feasibility.

As part of our “Winning Ways” strategy, we have set ourselves a new target in the area of circular economy. We strive to almost double the sales revenue generated by so-called Loop Solutions to €10 billion by 2030, compared with the base year of 2023. We define Loop Solutions as products that make a positive contribution to the circular economy in line with the TripleS methodology. These are products that are based wholly or partially on renewable or recycled feedstocks, that support the recycling process, or that increase durability of materials or prolong their functional life (see page [252](#)). As such, we aim to contribute to the more efficient use of resources and counteract climate change. This can also ease the pressure on ecosystems, as the use of recycled raw materials reduces demand for newly extracted raw materials. If fewer fossil raw materials are extracted or renewable raw materials harvested, this reduces the negative impacts on humans and the environment.

As part of our Responsible Care Management System, for example, we review the effectiveness of our measures in terms of combating these impacts. We analyze our impacts in the downstream value chain by means of the TripleS method. We have set ourselves the target of considerably increasing sales that we generate through products that make a positive contribution to sustainability. We group these products together as Sustainable-Future Solutions. By 2030, more than 50% of BASF's sales relevant to TripleS are to be attributable to Sustainable-Future Solutions. We are making good progress toward achieving this target (see page [161](#)). Sustainable-Future Solutions also include products whose attributes have a positive impact on biodiversity and ecosystems, such as through the use of renewable or recycled raw materials. One example of this is surfactants made from certified, sustainable palm (kernel) oil, which are used in detergents, cleaning agents and dishwashing detergents.

We do not rely on compensation measures to reach the aforementioned targets. With our selected measures and targets, we focus on avoiding or reducing negative impacts pursuant to the mitigation hierarchy. In terms of the impacts of our sites or our production activities, we have not set ourselves any dedicated targets on biodiversity and ecosystems.

<sup>5</sup> The global palm footprint comprises our sourcing of palm oil, palm kernel oil and palm-based primary derivatives.

## Metrics

[ESRS 2 SBM-3](#) [ESRS 2 IRO-1](#) [E4-5](#)

All BASF production sites in proximity to nature reserves must document potential direct negative impacts on biodiversity-sensitive areas. No such impact was reported by any site for 2024.

Since 2013, we have been analyzing production sites in terms of their proximity to nature reserves, including with the help of the Integrated Biodiversity Assessment Tool (IBAT). The sites have documented their results in our environmental database since 2021. In 2024, our assessment was expanded and now includes nature reserves pursuant to the classification of the International Union for Conservation of Nature (IUCN) I, II and III as well as Ramsar, UNESCO Natural World Heritage Sites, Natura 2000 and Key Biodiversity Areas (KBAs).

The sites document whether there are biodiversity-sensitive areas in their vicinity and whether they have had a negative impact on them. If such an instance occurs, we identify the cause of the negative impact. This could, for example, be a product leak, a habitat destruction due to construction work or the feeding in of untreated wastewater. Once we have concluded our investigation, we review the measures planned or already implemented in order to reduce or mitigate any impacts on nature.

In 2024, nearly 15% of our production sites<sup>6</sup> bordered a nature reserve or biodiversity-sensitive area; of which no sites reported negative impacts on nature reserves.

Using the STAR (Species, Threat, Abatement and Restoration) tool, we also calculated the STAR values for our production sites based on the IUCN Red List of Threatened Species. This analysis covered the sites themselves and a radius of ten kilometers. The results indicate that some of our production sites are located in areas with high or very high STAR values. These values indicate, for instance, that these areas are home to a large number of threatened species. We took a closer look at the drivers of biodiversity loss at these sites. Drivers included tourism, fishing, invasive species and the occurrence of diseases unrelated to chemical production.

- » For more information on our commitment to biodiversity, see [basf.com/biodiversity](https://basf.com/biodiversity)
- » For more information on our position on forest protection, see [basf.com/forestprotection](https://basf.com/forestprotection)

<sup>6</sup> For this analysis, production sites at which more than one BASF company operates were only counted once in order to avoid duplicate counting. "Neighboring" is deemed to mean within a radius of three kilometers.

## E5 Resource Use and Circular Economy

### ESRS E5

As the world's population grows, so does demand for limited natural resources. At the same time, many valuable materials end up in landfill or in waste incineration. Using resources responsibly and closing loops are material for our business and achieving our sustainability targets.

In our double materiality assessment, the topic Resource Use and Circular Economy was classified as material. For information on how the assessment was performed – including the tools used to do this – see the chapter General Disclosures, page [167](#) onward. We have identified five material impacts for BASF as a result of the assessment (see table below). The procurement and use of fossil raw materials negatively impact the environment through emissions, land use and environmental pollution. Waste arising at the end of the functional life of materials that are manufactured using our products may negatively impact the environment on disposal. At the same time, however, this waste also offers a potential opportunity for recycling raw materials and for closing material loops. We systematically record opportunities and risks as part of our general opportunity and risk management (for additional information, see page [87](#) onward).

### ESRS 2 IRO-1

To discuss critical issues and, if needed, develop solutions together, we seek dialog with our stakeholders. We are also involved in numerous sustainability initiatives to drive forward sustainability both in general and specifically in relation to our value chain. We are involved in networks, lobbying groups and associations in order to jointly promote sustainability topics.

We cooperate with partners along the value chain, for example in the chemical industry's Together for Sustainability initiative, and are involved in numerous networks such as the Ellen MacArthur Foundation (EMF), the World Business Council for Sustainable Development (WBCSD), the Global Battery Alliance (GBA) and the Alliance to End Plastic Waste (AEPW). In doing so, we want to better understand requirements, trends and growth opportunities, and contribute to the development of standards.

We use a Group-wide program to assess and develop new projects designed to promote the circular economy. We also address impacts, risks and opportunities by regularly assessing external, independent reports such as the Circularity Gap Report, which is published annually by the Circle Economy Foundation initiative. We have worked together with the WBCSD and other chemical companies to develop a Chemical Transformation Roadmap, which was published on the WBCSD website on October 1, 2024.

## Results of the double materiality assessment for E5 Resource Use and Circular Economy

Impacts	Evaluation	Placement in the value chain	Description
Sourcing and use of fossil or renewable raw materials	Negative	Upstream value chain	We negatively impact overshooting of the planetary boundaries by sourcing and using fossil and renewable raw materials, for example through emissions, land use and environmental pollution.
Waste management in the upstream value chain	Negative	Upstream value chain	We negatively impact the planetary boundaries through the waste arising in our upstream value chain as a result of sourcing, refining and processing.
Use of fossil or renewable raw materials	Negative	BASF's own operations, upstream and downstream value chain	We negatively impact overshooting of the planetary boundaries by using, processing and combusting fossil or renewable raw materials, for example through emissions, land use and environmental pollution.
Waste management in BASF's own production	Negative	BASF's own operations	We negatively impact the planetary boundaries through the waste arising in our own production.
Waste management in the downstream value chain	Negative	Downstream value chain	We negatively impact the planetary boundaries through the waste arising at our customers.

## Strategy and governance

### E5-1

We are pursuing a holistic strategy to establish a circular economy and, at the same time, to reduce our company's environmental footprint. We want to offer our customers innovative products and solutions to enable their green transformation. Our business units are therefore in close contact with our customers in order to better understand their sustainability needs and offer tailored BASF solutions. The insights from this dialog are also incorporated in our research projects and in innovation processes.

Our strategy covers the entire value chain – from responsible sourcing and the efficient use of raw materials in our own processes and using by-products to developing resource-saving solutions for our customers. For explanations of our overarching policies in respect of scope of application, accountability, impacts in the value chain, global applicability, accessibility to stakeholders and engagement thereof, see General Disclosures in our Sustainability Statement on page [151](#).

### Sourcing of raw materials

Alongside economic, environmental and social criteria, we also consider aspects such as product safety and supply security when selecting suppliers and raw materials. Our procurement organization has set out guidelines for our upstream value chain in a global, risk-based management system. We have defined the standards for this in a global procurement requirement. The BASF Group uses this requirement to ensure that procurement processes are in line with our standards and with the legal guidelines. The requirement includes a supplier risk assessment, which also examines their sustainability performance. The aim here, among other things, is to combat the negative impacts on the environment of the procurement of both fossil and renewable raw materials. We endeavor to ensure compliance with this guideline using a multistage control process. The unit-specific risk management systems of our business units are supported and monitored during implementation according to minimum standards set by the Corporate Center units. The Corporate Audit unit, as the third instance involved, monitors the effectiveness and compliance with risk management. We require suppliers to comply with internationally recognized environmental standards. Our expectations are laid down in our **Supplier Code of Conduct** (see page [295](#)), which is integrated into our purchasing conditions. This Code of Conduct, which also aims to address the negative impacts caused by our sourcing of fossil and renewable raw materials, covers protecting human rights, compliance with valid environmental regulations and the efficient use of resources, among other things.

The global procurement requirement is supplemented by specific internal guidelines, for example, on sourcing palm-based raw materials or certain mineral raw materials. The requirements regulate the sourcing of raw materials in general. They do not address a reduction in the use of fossil raw materials. As part of our new corporate strategy, the BASF Renewable Carbon unit within Global Procurement is continuing to drive the sourcing of renewable raw materials and biomass for BASF's operating divisions.

### Use of fossil raw materials

We are focusing on actions and on our circularity target to increasingly replace fossil raw materials with recycled or renewable raw materials. For many years, we have already been pursuing **BASF's Verbund concept**<sup>1</sup> to ensure the efficient use of raw materials. Intelligently linking and steering our plants and processes as set out in this concept creates efficient value chains. By-products from one plant are used as feedstocks elsewhere. This saves raw materials and energy. At the same time, the Verbund offers many opportunities to use renewable and recycled raw materials. Going forward, we want to better leverage this potential.

### Waste management in the value chain

We rely on our sourcing requirements and our Supplier Code of Conduct to address waste management in our upstream value chain. The responsible management of resources and waste in our own production as well as of the negative impacts resulting from this are core elements of our Responsible Care Management System. We want to use this system to fulfill our corporate purpose of creating chemistry for a sustainable future. Specifically, we intend to use it continuously to improve our processes in the areas of safety, environmental protection and resource use. Our global standards and guidelines relating to waste are defined in the Group-wide Environmental Protection corporate requirement. This includes compliance with the waste management hierarchy: prevention, reuse, recycling, energy recovery, incineration, disposal. The sites and Group companies are responsible for implementing this requirement. The Corporate Environmental Protection, Health, Safety & Quality unit in the Corporate Center conducts regular audits to monitor compliance with legal guidelines and internal requirements. BASF's global network of experts shares information, experiences and best practices on an ongoing basis. Continuous monitoring, documentation and control of waste streams and contaminated sites as well as the implementation of improvement measures are an integral part of our environmental management.

## Actions

### E5-2

As part of our activities to achieve more sustainability, we are relying on recycled and renewable raw materials to replace fossil raw materials and reduce emissions along the value chain. We continuously evaluate whether fossil and petrochemical resources can be replaced with renewable or recycled alternatives. We are aiming to transition to a circular economy by focusing on using increased amounts of circular raw materials (both recycled and renewable), designing new material cycles and establishing new business models.

We rely primarily on the following actions for this:

- Responsible sourcing of renewable raw materials
- Use of the mass balance approach
- Partnerships to drive forward chemical recycling
- Use of TripleS to steer our product portfolio toward more sustainability

<sup>1</sup> The Verbund concept is not a BASF policy and therefore also not a policy as defined by the ESRs.



Successfully transforming to a circular economy depends on a suitable framework. At present, global demand for circular products is growing more slowly than expected. In addition, there is currently not enough suitable waste available on the market, while technologies to enhance large-scale recycling of raw materials are being further developed. We are also observing uncertainties in the regulatory environment that are making the transformation more difficult.

As part of a Group-wide circular economy program, BASF teams have developed new approaches in over 50 initiatives since 2019. These relate to the main action areas of making greater use of circular feedstocks, designing innovative material cycles and establishing new business models. From 2025 onward, the respective business units will drive forward implementation of these initiatives in the long term.

#### E5-5

We help to close and expand loops by developing and implementing circular solutions for the materials that we source, continuing to optimize our operations and offering resource-efficient products and services that support our customers' circular processes. We are also developing product-specific recycling technologies and are involved in cross-industry networks and initiatives to avoid plastic waste and strengthen the circular economy.

### Sourcing and use of raw materials

#### E5-2

Fossil raw materials are still our most important feedstocks. Extracting and processing them causes greenhouse gas emissions, which contribute to climate change. We are trying to reduce these emissions by using alternative raw materials. However, these alternatives can also pose sustainability challenges, such as risks in the supply chain. We see one solution in a transition to a circular economy in which we use process and product innovations to decouple growth from resource consumption.

In line with our procurement requirements, our responsible **sourcing of renewable raw materials** takes the protection of biodiversity and ecosystems into account. The risk analyses that we perform in relation to our procurement processes also consider social factors such as working conditions and food security over the long term. We carefully weigh advantages and disadvantages, for example with life cycle analyses. At the same time, we seek dialog with our stakeholders to identify conflicting goals. The aim here, among other things, is to combat the negative impacts on the environment caused by the sourcing of both fossil and renewable raw materials. We also continuously include recognized certification standards, such as those from the Roundtable on Sustainable Palm Oil (RSPO), in our decisions. For our biomass portfolio, we are exclusively sourcing renewable raw materials that are certified according to recognized standards such as the International Sustainability and Carbon Certification (ISCC) or REDcert, the organization for sustainably produced biomass (see page [254](#)).

We are constantly working to switch to more sustainable raw materials and to reduce the resources consumed in the manufacturing of our products, for example through more efficient processes and innovative technologies. We are developing and testing long-term approaches to make the sourcing of raw materials more sustainable in joint local initiatives with suppliers and other partners. For example, we started operating a prototype metal refinery at our site in Schwarzheide, Germany, in April 2024. The plant will be used in the future to recycle lithium-ion batteries and waste from the production of electric vehicle batteries.

In addition, for example, we continue to deploy the **mass balance approach** in our production in the long term: Many BASF value chains start in syngas plants or steam crackers. This is where fossil feedstocks, mostly naphtha and natural gas, are converted into hydrogen and carbon monoxide or split into important basic chemicals such as ethylene and propylene. These are then processed further in the BASF Verbund to create thousands of products. In addition to fossil feedstocks, we feed alternative feedstocks from bio-based and chemically recycled sources, such as bionaphtha, biomethane and pyrolysis oil, into the Verbund long term at our production sites in Europe, North America and Asia Pacific. These alternatives are used in place of fossil feedstocks for our mass balance products. As fossil, bio-based and recycled raw materials are processed simultaneously, the feedstocks cannot be directly physically attributed to resulting derivatives. However, through monitoring by independent third parties such as TÜV Nord on the basis of recognized certification systems such as REDcert2 or ISCC PLUS, it can be verified that an adequate amount of alternative feedstocks has been used for the amount of mass balance sales product. This ensures that fossil raw materials are saved with every sale of these certified products. We aim to use the mass balance approach to help our customers to achieve their sustainability targets. This can help BASF to purchase fewer fossil raw materials and reach its sustainability targets.

» For more information on the mass balance approach, see [basf.com/massbalance](https://basf.com/massbalance)

Mass balance products are identical in quality to conventionally produced products, but due to the alternative feedstocks used they contribute to more sustainability, for example, through fewer CO<sub>2</sub> emissions and lower demand for fossil raw materials. In 2024, we expanded our mass balance portfolio in many areas, for example to include Ccycled<sup>®</sup> automotive refinish coatings, biomass balanced products for customers from the detergent and cleaner industry, and products for selected chemical intermediates.

One focal point of our activities in the area of circular feedstocks is the **chemical recycling** of plastics. We use this complementary technology to mechanical recycling to help reduce the amount of plastic waste that is disposed of in landfills or thermally recovered in the long term. Chemical recycling breaks down plastics into their building blocks or converts them into basic chemicals. Different methods are used for this, such as depolymerization or pyrolysis. Chemical recycling has impacts on the entire value chain – from the sourcing of raw materials and the use of recycled raw materials in the manufacture of products to the downstream value chain, in which waste is not disposed of but can be used as a feedstock. To give one example, in chemical recycling, our technology partners use the pyrolysis process to extract pyrolysis oil from used tires or from mixed plastic waste, which is not mechanically recycled as of yet. As part of ChemCycling<sup>®</sup>, we feed the pyrolysis oil into the BASF Verbund at our production sites in Europe, North America and Asia Pacific as a substitute for fossil feedstocks and manufacture Ccycled<sup>®</sup> products by applying the mass balance approach. In 2024, we established a long-term partnership with Encina Development Group to source benzene that has been chemically recycled from plastic waste. We also aim to use this feedstock to manufacture our Ccycled<sup>®</sup> product portfolio.

Our Agricultural Solutions division's xarvio<sup>®</sup> HEALTHY FIELDS digital solution is a good example of a business model that contributes to a circular economy by reducing resource consumption. The solution creates incentives for our customers to use resources as efficiently as possible when growing winter wheat and barley. It offers a customized, field-specific fungicide strategy that guarantees leaf health at the end of the season. If the guaranteed leaf health level is not reached, BASF pays compensation to its customers. In 2024, agricultural machinery manufacturer Stara started marketing a crop protection sprayer in Latin America that can detect and treat weeds in real time. The technology combines xarvio<sup>®</sup> Digital Farming Solutions' agronomic intelligence with high-tech cameras and software to optimize the use of herbicides.

**E5-5**

We are also pursuing the goal of closing product loops. One example of this is loopamid®. BASF developed this innovative solution to support the circular economy in the fashion industry and recycle polyamide 6 (PA6) textile waste. The technology behind loopamid® tolerates all fabric blends, including PA6 and elastane, enabling textile-to-textile-recycling of industrial textile waste and used clothing from the downstream value chain. The fibers and materials can be recycled over multiple cycles. At the same time, the material's characteristics are identical to those of conventional polyamide.

**E5-2**

A significant tool for the long-term global **steering of the product portfolio** based on the sustainability performance of our products is our TripleS method (Sustainable Solution Steering). We use this method to assess our relevant product portfolio<sup>2</sup> and categorize products by their applications and regional aspects, including with respect to resource use and the circular economy. This steering method also allows us to enhance our portfolio with respect to the aspects of the circular economy and resource use. By doing so, we aim to contribute positively to reducing the sourcing of fossil raw materials by supporting the use of recycled feedstocks and closed-loop product cycles. The latter could further reduce waste along the entire value chain. If products with sustainability concerns are identified within TripleS, we classify them as either Monitored or, in the case of significant concerns, as Challenged. A description of possible measures is mandatory for both categories. In the case of Challenged products, we develop our own action plans. These include research projects and reformulations to optimize products or replace them with alternatives. To systematically make our portfolio more sustainable, we are generally phasing out all Challenged products within five years of their initial classification. For more information on the TripleS method, see the General Disclosures chapter of the Sustainability Statement from page [161](#) onward.

**Waste management**

We are committed to minimizing material consumption along our value chain. We require suppliers to comply with internationally recognized environmental standards. We support our suppliers in developing and implementing measures for improvement, for example in waste management.

Through targeted **waste management**, which is set out in the Environmental Protection corporate requirement, we aim to reuse materials by recycling them, for example, and to keep waste disposal volumes as low as possible. In this continuous process, we systematically track our material flows and follow a clear hierarchy: We aim to avoid waste as far as possible, for example, by continuously optimizing our processes or developing new production methods. This is where our Verbund structure with its networked plants and value chains comes in: The by-products of one plant serve as feedstock elsewhere in the BASF Verbund, avoiding waste and enabling us to use the feedstocks deployed as efficiently as possible. If they cannot be used within the Verbund structures, we assess whether they can be recycled or thermally recovered. We have established processes for the safe, proper and environmentally responsible disposal of materials that we cannot recover or where recovery is not legally permitted. If we use external waste disposal companies, we conduct regular audits to verify that waste is disposed of properly. In this way, we also contribute to preventive soil protection and keep today's waste from becoming tomorrow's contamination.

<sup>2</sup> The definition of the relevant portfolio and further information can be found in the TripleS manual at [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering)

## Global targets

### E5-3

We use our TripleS method to categorize our relevant product portfolio<sup>3</sup> into five segments: Pioneer, Contributor, Standard, Monitored and Challenged. Taken together, the Pioneer and Contributor products make up our Sustainable-Future Solutions. Products allocated to these categories make a positive sustainability contribution in the value chain. Examples are bodycare products made from bio-based and biodegradable polymers or insulation foams that save energy for customers. Our Sustainable-Future Solutions allow us to make a positive contribution with our product portfolio. This also includes resource use and circular economy. For example, an increasing amount of recycled feedstocks are used in these products. We have set ourselves the goal of ensuring that more than 50% of BASF's sales relevant to TripleS are attributable to Sustainable-Future Solutions by 2030 (2024: 46.3%). With TripleS, we are steering our product portfolio as well as our research and development units toward sustainable solutions. We are aiming to reduce the negative impacts of the sourcing and use of fossil raw materials, for example, by using more recycled feedstocks and deploying circular solutions to make more efficient use of raw materials. This can also reduce the waste produced along the value chain. For more information on the methodology behind this target, see the General Disclosures chapter of our Sustainability Statement from page [161](#) onward.

In addition to this target, with which we aim to increase the proportion of our more sustainable products, we have set ourselves a new target for the circular economy in 2024. The target was set by BASF's Board of Executive Directors in 2024 on the basis of the TripleS method. This methodology and the associated target are based on clearly defined criteria in the respective ESG topic areas that are comprehensible in the methodology manual. There is currently no general quantitative scientific framework for the steering of a product portfolio based on business performance and sustainability contribution that companies could use as a guide when setting targets. Among other things, regional legislation on the circular economy and the guidelines set out therein, which we expect that our customers will have to meet, were taken into account when setting the target. We aim to generate sales of €10 billion from Loop Solutions for our customers by 2030 (2024: €5.7 billion). We define Loop Solutions as products that are categorized as Pioneers or Contributors in line with TripleS and that hence make a positive contribution to the circular economy. The total sum of absolute sales for these products represent our Loop Solutions. These are products that are based wholly or partly on renewable or recycled feedstocks, support recycling processes, increase durability of materials or prolong their lifetime. For example, multilayer packaging produced with our water-based Epotal<sup>®</sup> adhesives can be easily separated into its individual recyclable materials during recycling, allowing them to be reused. Our aim with this target is to reduce waste along the value chain and to make a positive contribution to the more efficient use of raw materials. The annual review of our TripleS target also includes a review of those products that contribute to the circular economy target, so as to measure and evaluate our progress toward achieving it.

In this way, BASF is pursuing a holistic strategy to support a circular economy and at the same time achieve our sustainability targets. To meet these two product-specific targets, we will enhance the sustainability of our raw material base in the direction of a more circular economy. We have drawn up both policies and actions to do this. We aim to use our targets to check whether our strategies and actions are having the desired effect and whether we are contributing to the circular economy.

There are no plans to introduce a dedicated waste management target. Our focus is on the efficient use of our raw materials in our plants. We are continuously increasing this efficiency thanks to the focused measures we are taking (see page [251](#)) and hence are also reducing the volumes of waste generated during production.

<sup>3</sup> The definition of the relevant portfolio and further information can be found in the TripleS manual at [basf.com/en/sustainable-solution-steering](https://basf.com/en/sustainable-solution-steering).

## Metrics

### Resource inflows

E5-4

BASF's most important raw materials (based on volume) include gas and crude oil-based petrochemical feedstocks such as naphtha and benzene. We use liquid gas and natural gas as fuels to generate energy and steam, and as raw materials to produce key basic chemicals such as ammonia or acetylene. Naphtha is mainly fed into our steam crackers, where it is split into products such as olefins and aromatics. Olefins such as ethylene, propylene and butene are important feedstocks for numerous value chains at BASF. We use aromatics such as benzene or toluene to manufacture engineering plastics, among other products. Further details about water as a resource are given in chapter E3 Water (on page [221](#) onward). Investments in property, plant and equipment such as the construction of new production plants or the expansion of capacities at existing production plants are of crucial importance to us as a chemical company. Information on these investments is given in the chapter Material Investments and Portfolio Measures of the Consolidated Financial Statements (see page [33](#)). Thanks to a high degree of forward and backward integration, we can produce feedstocks for our value chains efficiently within the BASF Verbund while conserving resources. We continuously evaluate whether fossil and petrochemical resources can be replaced with renewable or recycled alternatives.

Our renewable raw materials are mainly based on vegetable oils, fats, grains, sugar and ethanol. We use these to produce ingredients for the detergent and cleaner industry and natural active ingredients for the cosmetics industry, for example. We also use renewable feedstocks such as biomethane and bionaphtha as an alternative to fossil feedstocks in our Verbund (see page [250](#)).

We document the volumes of raw materials that we source by determining and adding together their weights. Solids are weighted directly, while for liquids and gases, the volumes are measured and the weights then calculated using their density. We comply with our global, binding procurement requirements when sourcing raw materials and expect our suppliers to adhere to our Supplier Code of Conduct.

When using fossil and renewable raw materials, we consider economic criteria, supply security, process and product safety issues, the availability of various raw materials and potential **impacts on sustainability** along the value chain. All in all, we purchased 30.4 million metric tons of raw materials in 2024, which we generally also use in the same year. Renewable raw materials accounted for 1.2 million metric tons of this amount and were mainly based on vegetable oils, fats, grains and sugar.

We purchase renewable raw materials in accordance with our principles for sustainable sourcing. Our expectations of our suppliers are laid down in our Supplier Code of Conduct. We are developing and testing approaches to make the supply of raw materials more sustainable in joint initiatives with suppliers and other partners. Our principles for the responsible sourcing of renewable raw materials cover both environmental and social criteria.

A total of 24% of the renewable raw materials purchased by us in 2024 were certified, for example by RSPO, REDcert-EU, ISCC EU or ISCC PLUS. Certification standards are not available for all renewable raw materials. As part of our commitment to more sustainability, we are focusing on those areas where they are still missing.

**Palm oil, palm kernel oil** and their derivatives are some of our most important renewable raw materials. We mainly use these to produce ingredients for the cosmetics, detergent, cleaner and food industries. We aim to ensure that palm-based raw materials come from certified sustainable sources. We have been a member of the RSPO since 2004 and are involved in other national and international initiatives, such as the German Forum for Sustainable Palm Oil (FONAP) and the High Carbon Stock Approach (HCSA) organization. Building on our Group-wide Supplier Code of Conduct, we have outlined our expectations of suppliers in the palm-based value chain in an additional sourcing policy (BASF Palm Sourcing Policy). This addresses aspects such as forest and peat conservation, respect for labor rights and the rights of Indigenous peoples, smallholder inclusion, and certification and traceability standards. Our goal here is to address negative impacts that could arise as a result of our sourcing of renewable raw materials specifically for palm-based raw materials. As part of our supplier and risk management, we use the Palmoil.io internet platform from the tech firm MapHubs to monitor potential deforestation activities that violate our Palm Sourcing Policy. Our Care Chemicals division has published a comprehensive annual **Responsible Sourcing Report** since 2023. In it, we report on our measures and progress toward more sustainability and transparency in the palm value chain and the value chains for other renewable raw materials.

We sourced 11.3 kilotons of recycled raw materials in 2024. This corresponds to 0.04% of our raw materials. The figure includes pyrolysis oil, which is extracted from plastic waste or used tires via chemical recycling (see page [250](#)).

We have many years of experience and a high degree of specialization in recycling **precious metals** such as platinum, palladium and rhodium. These are used in mobile emissions catalysts as well as in chemical catalysts. We primarily use the precious metals recovered in this way as feedstocks to manufacture new products for the automotive, specialty chemical, semiconductor and green hydrogen industries.

Another focus is on recycling **mineral raw materials**. For example, we are driving forward innovative technologies and solutions for recovering metals such as lithium, nickel, cobalt and manganese from end-of-life lithium-ion batteries. With the growing market for electric vehicles, there is also an increasing need for recycling lithium-ion batteries. As a leading producer of battery materials with local production capacities in the three main markets – Asia, Europe and North America – BASF has in-depth expertise in battery chemistry and process technology. We are utilizing these competencies to address battery recycling as an additional growth market in cooperation with partners along the value chain.



## Resource outflows

### E5-5

The production and processing of chemicals is our core business. Our extensive product portfolio ranges from chemicals and materials to industrial solutions, surface technologies, nutrition and care and agricultural solutions. We supply products and services to around 74,000 customers<sup>4</sup> from various sectors in almost every country in the world. Our customer portfolio largely comprises major global customers and medium-sized enterprises, which process them in downstream production. Only isolated products, such as in the agricultural area, are also sold directly to end consumers. Because of this, we assume that our products do not have a significantly high material use rate or recyclable content.

Our products are frequently used to manufacture durable, high-performance solutions such as electric motors for vehicles or insulation foams for the construction industry. We are making increasing use of alternative feedstocks and processes in the manufacture of our products, so as to close material loops and reduce waste (see page 248). These include, in particular, our Ccycled<sup>®</sup> products; we use the mass balance approach to attribute pyrolysis oil – which is fed into the BASF Verbund as a substitute for fossil feedstocks – to them. We are helping to strengthen the circular economy and increase resource use by offering our customers products that support the recycling process, increase the durability of materials or prolong their lifetime. We have embedded the TripleS method in the assessment of our research and development (R&D) processes so as to incorporate the guidelines formulated by the European Commission in its Safe and Sustainable by Design framework, among other things. Our use of TripleS creates transparency regarding the contribution to sustainability made by our product portfolio and future products developed by R&D and also takes circular design principles into account. We are reviewing the sustainability-related challenges facing our products and steering our portfolio in the direction of more sustainable solutions. As part of our circular economy program, we also investigate the recyclability of our own products, among other things. One example of this is loopamid<sup>®</sup>, a product enabling textile-to-textile recycling of industrial textile waste and used clothing (see page 251).

One of the ways in which we can reduce the use of fossil raw materials is to partially or fully use renewable or recycled feedstocks to manufacture products. This is done by feeding in recycled or bio-based feedstocks into the production of certain BASF products and attributing them to the end products. We use the mass balance approach for this. As fossil, bio-based and recycled raw materials are processed simultaneously, the feedstocks cannot be directly physically attributed to resulting derivatives. This attribution is monitored by independent third parties such as TÜV Nord on the basis of recognized certification systems including REDcert2 or ISCC PLUS. These enable BASF to verify that an adequate amount of alternative feedstocks have been used for the amount of mass balance sales product. This ensures that fossil raw materials are saved with every sale of these certified products.

» For more information, see [basf.com/massbalance](https://basf.com/massbalance)

BASF generated 2.18 million metric tons of waste in 2024. As is normally the case in the chemical industry, this includes metals, plastic waste as well as reaction and distillation residues, among other things. A total of 1.09 million metric tons of this waste was disposed of. Based on the concept of the circular economy, we are continuously examining recycling or thermal recovery options for all waste. In this way, we were able to find new uses for 1.09 million metric tons of our waste in 2024. A total of 1.70 million metric tons (77.8%) of our waste could not be recycled. We continuously identify and evaluate the safest and most environmentally sound disposal routes for nonrecyclable waste. The

<sup>4</sup> The number of customers refers to all external companies (sold-to parties) that had contracts with the BASF Group in the business year during which sales were generated.



hazardous waste disposed of in landfill is mainly contaminated construction waste that cannot be recycled due to legal guidelines. BASF classifies waste before its disposal in line with the applicable legislation and the volume is determined by weighing it at the disposal company. The data produced by weighing serves as the basis for the treatment or disposal costs that are due. A general description of our measurement methods and of the process used to capture environmental data, including waste volumes, plus general information on estimating or rounding specific sustainability parameters can be found in the General Disclosures chapter of our Sustainability Statement on page [150](#) onward.

### Waste generation in the BASF Group in 2024

In millions of metric tons	Hazardous waste	Nonhazardous waste
	2024	2024
<b>Recovery</b>		
Recycled	0.16	0.32
Thermally recovered	0.47	0.14
<b>Waste recovered</b>	<b>0.63</b>	<b>0.46</b>
<b>Disposal</b>		
Through incineration (without energy recovery)	0.63	0.05
In surface landfills	0.09	0.18
Other	0.11	0.04
<b>Waste disposed of</b>	<b>0.83</b>	<b>0.26</b>
<b>Total waste generation</b>	<b>1.46</b>	<b>0.73</b>

## EU Taxonomy

The European Union (EU) strives to be climate neutral by 2050 as part of the Green Deal. The EU taxonomy serves as an instrument for that purpose. It provides a common classification system for economic activities based on their substantial contribution to environmental objectives.

In accordance with the EU Taxonomy Regulation and the supplementary delegated acts, the Nonfinancial Statement includes the share of the Group's taxonomy-eligible and taxonomy-aligned sales revenue, capital expenditures (capex) and operating expenditures (opex) for the reporting year 2024. Under consideration is whether our economic activities substantially contribute to one or more of the following six environmental objectives: climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems.

BASF activities that are not yet covered by the EU taxonomy, and as such, are not relevant under the taxonomy, are reported as taxonomy-non-eligible in accordance with the delegated acts. These include large parts of BASF's activities that may nevertheless be in line with the EU's environmental objectives as they substantially contribute to avoiding CO<sub>2</sub> emissions within BASF and for BASF products. We use our TripleS methodology to systematically analyze the environmental performance of all BASF products (see page [161](#)).

To derive the aforementioned financial indicators, we analyzed our product portfolio and identified the following economic activities under the EU taxonomy's six environmental objectives as being relevant for BASF:

- Manufacture of batteries<sup>1</sup>
- Manufacture of energy efficiency equipment for buildings<sup>1</sup>
- Manufacture of hydrogen
- Manufacture of soda ash
- Manufacture of chlorine
- Manufacture of organic basic chemicals
- Manufacture of anhydrous ammonia
- Manufacture of nitric acid
- Manufacture of plastics in primary form
- High-efficiency cogeneration of heat/cool and power from fossil gaseous fuels
- Manufacture of active pharmaceutical ingredients (API) or active substances

To avoid double counting, the assignment to an enabling activity is only made if a taxonomy-eligible product or project had not already been included under another activity. BASF products also enable the manufacture of renewable energy technologies as well as low-emission mobility. However, since the EU taxonomy focuses on the manufacture of technologies and thus excludes precursors, we have classified these activities as non-eligible under the EU taxonomy.

We identified additional BASF activities outside of our main business – the production of chemical products – and assessed their materiality in terms of their contribution to sales revenue, capital or operating expenditures. For the 2024 reporting year, we also assessed the economic activity high-efficiency cogeneration of heat/cool and power from fossil gaseous fuels as relevant with respect to the environmental objective of climate change mitigation. For the purposes of the templates set out in Annex XII to Commission Delegated Regulation (EU) 2021/2178, we would like to point out that we conduct activities in the areas of electricity generation. In this context, our activities in the areas of high-efficiency

<sup>1</sup> Enabling activities as defined in the EU Taxonomy Regulation.

cogeneration of heat/cool and power from fossil gaseous fuels, reached the materiality threshold for the first time in the 2024 business year in terms of their contribution to capital expenditures. The following economic activities have been deemed immaterial: electricity generation using solar photovoltaic technology; production of heat/cool from bioenergy; production of heat/cool from geothermal energy; electricity generation from fossil gaseous fuels; and high-efficiency cogeneration of heat/cool and power from fossil gaseous fuels. BASF does not conduct any nuclear energy activities.

BASF does not report any taxonomy-eligible activities under the environmental objective of climate change adaptation. This is firstly to avoid double counting with economic activities already included under the environmental objective of climate change mitigation. Secondly, in accordance with the notice issued by the European Commission, a prerequisite for taxonomy eligibility under the adaptation objective is the submission of an investment plan for implementing adaptation solutions. BASF does not currently have any such plan within the meaning of the EU Taxonomy Regulation.

### Taxonomy-eligible sales revenue, capital and operating expenditures for all six environmental objectives

We assessed the taxonomy eligibility of our sales revenue based on sales revenue as defined and reported in the Consolidated Financial Statements of the BASF Group (see page 358). When taking all six environmental objectives into account, our taxonomy-eligible sales revenue accounted for 11.7% of total sales revenue in 2024. The largest contributions were from the activities manufacture of plastics in primary form and manufacture of organic basic chemicals, both of which are assigned to the environmental objective of climate change mitigation. Taxonomy-eligible capital expenditures (including acquisitions and excluding goodwill in accordance with the EU Taxonomy Regulation) accounted for 21.4% of the total capital expenditures reported in the Consolidated Financial Statements. Capital expenditures on the manufacture of organic basic chemicals and in the manufacture of plastics in primary form made the greatest contribution. These two activities likewise support the environmental objective of climate change mitigation. Operating expenditures include non-capitalized costs that relate to research and development<sup>2</sup>, maintenance and repair, and short-term lease expenses. We follow the definition of operating expenditures set forth in the EU Taxonomy Regulation, which varies from how we report opex in our Consolidated Financial Statements. All of the capital and operating expenditures of a production facility with a taxonomy-eligible activity are counted as taxonomy-eligible. Taxonomy-eligible operating expenditures accounted for 11.7% of total operating expenditures. The largest contributions were from the activities manufacture of organic basic chemicals and manufacture of plastics in primary form. Both activities fall under the objective of climate change mitigation.

### Taxonomy-aligned sales revenue, capital and operating expenditures

The taxonomy-eligible activities identified by BASF can be classified as taxonomy-aligned if they make a substantial contribution to one of the six environmental objectives and do no significant harm to other environmental objectives and, at the same time, ensure minimum social safeguards. As in the prior year, the material contribution and the harm to other environmental objectives were reviewed in a three-step process. The **first step** involved a two-part analysis based on BASF's internal product databases:

- The manufacture of products was analyzed with respect to the use of critical substances listed in Appendix C<sup>3</sup> to Commission Delegated Regulation (EU) 2023/2485 to ensure that they do not result in significant harm to the EU taxonomy's objective of pollution prevention and control. This also included use in the production process. Experts assessed and documented in each case that no other suitable alternative substances or technologies were available on the market.

<sup>2</sup> Taxonomy-eligible expenses for research and development are derived using the criteria applicable to the economic activity of close-to-market research, development and innovation (for example, having a Technology Readiness Level of at least 6).

<sup>3</sup> Generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals.

- Plastics in primary form were analyzed with respect to the share of renewable raw materials in the product. They were only considered further if the share was at least 5% and thus potentially made a substantial contribution to climate change mitigation through partial or complete production from renewable raw materials. Shares allocated using mass balance approaches (see page 250) are not taken into account here because their acceptance under the EU taxonomy has not yet been definitively clarified. For this reason, BASF products based on chemically recycled raw materials were not considered further in the assessment either. Mechanical recycling did not play any role for BASF in this context.

In the **second step**, it was assessed whether the potentially taxonomy-aligned products make a substantial contribution to climate change mitigation in accordance with the activity-specific criteria. Among other things, the greenhouse gas emissions of European and non-European plants to produce soda ash and nitric acid were compared with the average values of the most efficient plants under the EU emissions trading system. For the production of hydrogen, chlorine, ammonia and plastics in primary form, the comparison was with the activity-specific quantitative criteria, such as the energy or emission intensity of a product. This was based on a digital solution developed by BASF to determine product-specific carbon emissions (see page 194). With respect to measuring capital expenditures for the manufacture of emission-free hydrogen at our Ludwigshafen site (construction of a proton exchange membrane electrolyzer), a funding commitment from the German Federal Ministry for Economic Affairs and Climate Action was taken into account, as was a study on greenhouse gas emissions in hydrogen production carried out by the German environmental agency (Umweltbundesamt, UBA). The 2024 reporting year was the first year in which we reviewed whether the activity of manufacture of active pharmaceutical ingredients (API) or active substances made a substantial contribution to the environmental objective of pollution prevention and control. In so doing, we compared the activity in question with the activity-specific product criteria.

Finally, in the **third step** of the process, it was assessed whether the products identified cause significant harm to the other environmental objectives. This included an analysis of risks arising from climate change using climate risk and vulnerability assessments. At sites with material climate risk, the existence of adaptation solutions was additionally analyzed and evaluated. The avoidance of significant harm to water and marine resources<sup>4</sup>, biodiversity and ecosystems<sup>5</sup>, and pollution prevention and control were assumed for production plants in Europe based on comprehensive and uniform regulatory requirements and additionally ensured through data queries. The taxonomy alignment of non-European plants was assessed on a case-by-case basis. This was based on joint assessments by local and central experts using the evidence of local production requirements submitted.

The criteria for **minimum social safeguards** as a further pillar of taxonomy alignment in accordance with Article 18 of the EU Taxonomy Regulation were reviewed for all activities across the BASF Group that involve the four core topics of human rights (including labor rights), corruption/bribery, taxation and fair competition. The review was independent of the step-by-step process for the contribution to climate change mitigation and harm to other environmental objectives criteria. Minimum social safeguards were ensured by a systematic, integrated and risk-based approach to safeguarding our human rights due diligence obligations (see page 154), by global labor and social standards (see page 274), and by the BASF Supplier Code of Conduct (see page 295), among other things.

Taxonomy-aligned **sales revenue** accounted for 1.2% of the total sales revenue defined and reported in the BASF Group's Consolidated Financial Statements in 2024 (see page 358), with the greatest

<sup>4</sup> Protection of water and marine resources is assumed at sites that do not use or treat water.

<sup>5</sup> A radius of three kilometers around production sites was defined for the analysis of biodiversity-sensitive areas.

contribution coming from the manufacture of batteries (0.9%). Taxonomy-aligned capital expenditures (including acquisitions and excluding goodwill in accordance with the EU taxonomy) accounted for 3.7% of the total investments reported in the Consolidated Financial Statements. A substantial contribution of 2.6% was identified with respect to **capital expenditures** for the manufacture of batteries (additions to property, plant and equipment). We are also investing in a plant to produce emission-free hydrogen which will be commissioned in the coming years. The plant nonetheless fulfills the criteria for taxonomy alignment and is accordingly reported as capital expenditure pursuant to Section 1.1.2.2(a) of Annex I to Commission Delegated Regulation (EU) 2021/2178. Taxonomy-aligned **operating expenditures** accounted for 1.7% of total operating expenditures, with the largest contribution coming from the economic activity of manufacture of batteries (1.1%). There were no substantial changes to our taxonomy-aligned sales revenues or capital and operating expenditures.

The taxonomy-aligned portion of BASF's economic activities remains considerably lower than the taxonomy-eligible portion due to various factors. For instance, only a small proportion of plastics in primary form contain renewable raw materials in an amount above the threshold value (5%). The proportion of taxonomy-aligned activities is additionally reduced by the fact that many plants exceed the benchmarks used by the EU taxonomy. For example, the use of renewable energies is disregarded as a result of the strict requirements for calculating emissions in European emissions trading. Among other things, our steam cracker investment at our Zhanjiang, China site was assessed as not taxonomy-aligned even though it contributes to avoiding a considerable amount of carbon emissions. In addition, plants that are not subject to emissions trading and thus cannot be assessed using the specified criteria were generally classified as not taxonomy-aligned. The economic activity of manufacture of active pharmaceutical ingredients (API) or active substances was assessed for the first time, thus focusing taxonomy alignment on newly developed substances that constitute a suitable replacement for an existing product that does not meet the criteria for biodegradability. This resulted in established active ingredients with multiple benefits for human health – such as ibuprofen – being assessed as not taxonomy-aligned.

For more information on sales revenues, see Note 7 to the Consolidated Financial Statements from page [358](#) onward. For more information on capital expenditures, see Note 14 to the Consolidated Financial Statements from page [378](#) onward.

## Taxonomy-eligible and taxonomy-aligned sales revenue, capital expenditures (capex) and operating expenditures (opex) in 2024

	Code	Proportion of sales revenue/ total sales revenue		Proportion of capex/ total capex		Proportion of opex/ total opex	
		Taxonomy- aligned per objective (in %)	Taxonomy- eligible per objective (in %)	Taxonomy- aligned per objective (in %)	Taxonomy- eligible per objective (in %)	Taxonomy- aligned per objective (in %)	Taxonomy- eligible per objective (in %)
Climate change mitigation	CCM	1.2	11.7	3.7	21.1	1.7	10.1
Climate change adaptation	CCA	-	-	-	-	-	-
Water and marine resources	WTR	-	-	-	-	-	-
Circular economy	CE	-	-	-	-	-	-
Pollution prevention and control	PPC	-	-	-	0.3	-	1.7
Biodiversity and ecosystems	BIO	-	-	-	-	-	-

## EU Taxonomy indicators: 2024 sales revenue

Business year	2024		Substantial contribution criteria							DNSH criteria ("do no significant harm")							Proportion of taxonomy-aligned (A.1.) or taxonomy-eligible (A.2.) sales revenue 2023	Category: enabling activity	Category: transitional activity
	Code	Sales revenue	Proportion of sales revenue	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution	Bio-diversity	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution	Bio-diversity	Minimum safeguards			
		Million €	In %	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>			
<b>A. Taxonomy-eligible activities</b>																			
<b>A.1. Environmentally sustainable activities (taxonomy-aligned)</b>																			
Manufacture of batteries	CCM 3.4	584	0.9	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	1.2	E	–
Manufacture of energy efficiency equipment for buildings	CCM 3.5	44	0.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.0	E	–
Manufacture of soda ash	CCM 3.12	1	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.0	–	T
Manufacture of organic basic chemicals	CCM 3.14	111	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.3	–	T
Manufacture of plastics in primary form	CCM 3.17	13	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.0	–	T
<b>Sales revenue for environmentally sustainable activities (taxonomy-aligned)</b>		<b>753</b>	<b>1.2</b>	<b>1.2%</b>	–	–	–	–	–	–	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>1.6</b>		
Of which enabling activity (E)		628	1.0	1.0%	–	–	–	–	–	–	Y	Y	Y	Y	Y	Y	1.3	E	
Of which transitional activity (T)		125	0.2	0.2%	–	–	–	–	–	–	Y	Y	Y	Y	Y	Y	0.3		T
<b>A.2. Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>																			
				EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>										
Manufacture of batteries	CCM 3.4	0	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								–		
Manufacture of hydrogen	CCM 3.10	7	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Manufacture of soda ash	CCM 3.12	3	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Manufacture of chlorine	CCM 3.13	1	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Manufacture of organic basic chemicals	CCM 3.14	2,772	4.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3.1		
Manufacture of anhydrous ammonia	CCM 3.15	137	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.2		
Manufacture of nitric acid	CCM 3.16	121	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.2		
Manufacture of plastics in primary form	CCM 3.17	4,359	6.7	EL	N/EL	N/EL	N/EL	N/EL	N/EL								6.7		
Manufacture of active pharmaceutical ingredients (API) or active substances <sup>b</sup>	PPC 1.1	264	0.4	N/EL	N/EL	N/EL	N/EL	EL	N/EL								0.3		
<b>Sales revenue for taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>		<b>7,665</b>	<b>11.7</b>	<b>11.3%</b>	–	–	–	<b>0.4%</b>	–								<b>10.6</b>		
<b>Total A.1. + A.2.</b>		<b>8,418</b>	<b>12.9</b>	<b>12.5%</b>	–	–	–	<b>0.4%</b>	–								<b>12.2</b>		
<b>B. Taxonomy-non-eligible activities</b>																			
<b>Sales revenue for taxonomy-non-eligible activities</b>		<b>56,842</b>	<b>87.1</b>																
<b>Total</b>		<b>65,260</b>	<b>100.0</b>																

<sup>a</sup> Y: Yes, taxonomy-eligible activity that is taxonomy-aligned with the relevant environmental objective; N: No, taxonomy-eligible activity that is not taxonomy-aligned with the relevant environmental objective; EL: Eligible, taxonomy-eligible activity for the respective objective; N/EL: Not eligible, taxonomy-non-eligible activity for the respective environmental objective

<sup>b</sup> For the economic activity manufacture of active pharmaceutical ingredients (API) or active substances, the assessment for taxonomy alignment had to be carried out for the first time for the 2024 financial year in accordance with delegated acts.



## EU taxonomy indicators: 2024 capital expenditures (capex)

Business year	2024		Substantial contribution criteria							DNSH criteria ("do no significant harm")							Proportion of taxonomy-aligned (A.1.) or taxonomy-eligible (A.2.) capex 2023	Category: enabling activity	Category: transitional activity
	Code	Investments (capex)	Proportion of capex	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution	Bio-diversity	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution	Bio-diversity	Minimum safeguards			
Economic activities		Million €	In %	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	In %	E	T
<b>A. Taxonomy-eligible activities</b>																			
<b>A.1. Environmentally sustainable activities (taxonomy-aligned)</b>																			
Manufacture of batteries	CCM 3.4	170	2.6	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	4.1	E	–
Manufacture of energy efficiency equipment for buildings	CCM 3.5	0	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.0	E	–
Manufacture of hydrogen	CCM 3.10	59	0.9	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.7	–	–
Manufacture of soda ash	CCM 3.12	10	0.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.3	–	T
Manufacture of organic basic chemicals	CCM 3.14	6	0.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.2	–	T
Manufacture of plastics in primary form	CCM 3.17	0	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.0	–	T
<b>Capex for environmentally sustainable activities (taxonomy-aligned)</b>		<b>244</b>	<b>3.7</b>	<b>3.7%</b>	–	–	–	–	–	–	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>5.2</b>		
Of which enabling activity (E)		170	2.6	2.6%	–	–	–	–	–	–	Y	Y	Y	Y	Y	Y	4.1	E	
Of which transitional activity (T)		15	0.2	0.2%	–	–	–	–	–	–	Y	Y	Y	Y	Y	Y	0.5		T
<b>A.2. Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>																			
				EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>										
Manufacture of hydrogen	CCM 3.10	10	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.3		
Manufacture of soda ash	CCM 3.12	0	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Manufacture of chlorine	CCM 3.13	12	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.9		
Manufacture of organic basic chemicals	CCM 3.14	880	13.3	EL	N/EL	N/EL	N/EL	N/EL	N/EL								10.3		
Manufacture of anhydrous ammonia	CCM 3.15	15	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.5		
Manufacture of nitric acid	CCM 3.16	4	0.1	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Manufacture of plastics in primary form	CCM 3.17	170	2.6	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3.1		
High-efficiency cogeneration of heat/cool and power from fossil gaseous fuels	CCM 4.30	149	2.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								–		
Acquisition and ownership of buildings	CCM 7.7	157	2.4	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2.4		
Manufacture of active pharmaceutical ingredients (API) or active substances <sup>b</sup>	PPC 1.1	20	0.3	N/EL	N/EL	N/EL	N/EL	EL	N/EL								0.3		
<b>Capex for taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>		<b>1,418</b>	<b>21.4</b>	<b>21.1%</b>	–	–	–	<b>0.3%</b>	–								<b>17.8</b>		
<b>Total A.1. + A.2.</b>		<b>1,662</b>	<b>25.0</b>	<b>24.7%</b>	–	–	–	<b>0.3%</b>	–								<b>23.1</b>		
<b>B. Taxonomy-non-eligible activities</b>																			
<b>Capex for taxonomy-non-eligible activities</b>		<b>4,976</b>	<b>75.0</b>																
<b>Total</b>		<b>6,638</b>	<b>100.0</b>																

<sup>a</sup> Y: Yes, taxonomy-eligible activity that is taxonomy-aligned with the relevant environmental objective; N: No, taxonomy-eligible activity that is not taxonomy-aligned with the relevant environmental objective; EL: Eligible, taxonomy-eligible activity for the respective objective; N/EL: Not eligible, taxonomy-non-eligible activity for the respective environmental objective

<sup>b</sup> For the economic activity manufacture of active pharmaceutical ingredients (API) or active substances, the assessment for taxonomy alignment had to be carried out for the first time for the 2024 financial year in accordance with delegated acts.

## EU taxonomy indicators: 2024 operating expenditures (opex)

Business year	2024		Substantial contribution criteria							DNSH criteria ("do no significant harm")					Proportion of taxonomy-aligned (A.1.) or taxonomy-eligible (A.2.) capex 2023	Category: enabling activity	Category: transitional activity		
	Code	Operating expenditures (opex)	Proportion of opex	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution	Bio-diversity	Climate change mitigation	Climate change adaptation	Water	Circular economy	Pollution				Bio-diversity	Minimum safeguards
Economic activities		Million €	In %	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y; N; N/EL <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	Y/N <sup>a</sup>	In %	E	T
<b>A. Taxonomy-eligible activities</b>																			
<b>A.1. Environmentally sustainable activities (taxonomy-aligned)</b>																			
Manufacture of batteries	CCM 3.4	52	1.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.6	E	–
Manufacture of energy efficiency equipment for buildings	CCM 3.5	2	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	Y	Y	Y	Y	0.1	E	–
Manufacture of soda ash	CCM 3.12	5	0.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	–	Y	Y	Y	0.1	–	T
Manufacture of organic basic chemicals	CCM 3.14	14	0.3	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	–	Y	Y	Y	0.9	–	T
Manufacture of plastics in primary form	CCM 3.17	6	0.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	–	Y	Y	–	Y	Y	Y	0.1	–	T
<b>Opex for environmentally sustainable activities (taxonomy-aligned)</b>		<b>79</b>	<b>1.7</b>	<b>1.7%</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>1.8</b>		
Of which enabling activity (E)		54	1.2	1.2%	–	–	–	–	–	–	Y	Y	Y	Y	Y	Y	0.7	E	
Of which transitional activity (T)		26	0.6	0.6%	–	–	–	–	–	–	Y	Y	–	Y	Y	Y	1.1		T
<b>A.2. Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>																			
				EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>	EL; N/EL <sup>a</sup>										
Manufacture of hydrogen	CCM 3.10	39	0.9	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.8		
Manufacture of soda ash	CCM 3.12	4	0.1	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.1		
Manufacture of chlorine	CCM 3.13	33	0.7	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.7		
Manufacture of organic basic chemicals	CCM 3.14	195	4.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3.9		
Manufacture of anhydrous ammonia	CCM 3.15	23	0.5	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.4		
Manufacture of nitric acid	CCM 3.16	14	0.3	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.3		
Manufacture of plastics in primary form	CCM 3.17	158	3.4	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3.5		
Manufacture of active pharmaceutical ingredients (API) or active substances <sup>b</sup>	PPC 1.1	77	1.7	N/EL	N/EL	N/EL	N/EL	EL	N/EL								0.9		
<b>Opex for taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)</b>		<b>542</b>	<b>11.7</b>	<b>10.1%</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1.7%</b>	<b>–</b>								<b>10.7</b>		
<b>Total A.1. + A.2.</b>		<b>621</b>	<b>13.5</b>	<b>11.8%</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>1.7%</b>	<b>–</b>								<b>12.4</b>		
<b>B. Taxonomy-non-eligible activities</b>																			
<b>Opex for taxonomy-non-eligible activities</b>		<b>3,998</b>	<b>86.5</b>																
<b>Total</b>		<b>4,619</b>	<b>100.0</b>																

<sup>a</sup> Y: Yes, taxonomy-eligible activity that is taxonomy-aligned with the relevant environmental objective; N: No, taxonomy-eligible activity that is not taxonomy-aligned with the relevant environmental objective; EL: N/EL: Not eligible, taxonomy-non-eligible activity for the respective environmental objective

<sup>b</sup> For the economic activity manufacture of active pharmaceutical ingredients (API) or active substances, the assessment for taxonomy alignment had to be carried out for the first time for the 2024 financial year in accordance with delegated acts.

## Template 1 Nuclear and fossil gas related activities

Row	Nuclear energy related activities	Yes/No
1	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	No
2	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	No
3	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	No
Row	Fossil gas related activities	Yes/No
4	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	No
5	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	Yes
6	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	No

## Template 2 Taxonomy-aligned economic activities (denominator)

Row	Economic activities	Amount and proportion of sales (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of capex (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of opex (the information is to be presented in monetary amounts and as percentages)					
		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA	
		Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	<b>Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of the applicable KPI</b>	753	1.2	-	-	753	1.2	244	3.7	-	-	244	3.7	79	1.7	-	-	79	1.7
8	<b>Total applicable KPI</b>	65,260	100.0	-	-	65,260	100.0	6,638	100.0	-	-	6,638	100.0	4,619	100.0	-	-	4,619	100.0

### Template 3 Taxonomy-aligned economic activities (numerator)

Row	Economic activities	Amount and proportion of sales (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of capex (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of opex (the information is to be presented in monetary amounts and as percentages)					
		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA	
		Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%
1	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Amount and proportion of taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the numerator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	<b>Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of the applicable KPI</b>	753	1.2	-	-	753	1.2	244	3.7	-	-	244	3.7	79	1.7	-	-	79	1.7
8	<b>Amount and proportion of other taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the numerator of the applicable KPI</b>	753	1.2	-	-	753	1.2	244	3.7	-	-	244	3.7	79	1.7	-	-	79	1.7

## Template 4 Taxonomy-eligible but not taxonomy-aligned economic activities

Row	Economic activities	Amount and proportion of sales (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of capex (the information is to be presented in monetary amounts and as percentages)						Amount and proportion of opex (the information is to be presented in monetary amounts and as percentages)					
		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)		CCM + CCA	
		Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%	Million €	%
1	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	149	2.2	-	-	149	2.2	-	-	-	-	-	-
6	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	<b>Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of the applicable KPI</b>	7,401	11.3	-	-	7,401	11.3	1,250	18.9	-	-	1,250	18.9	467	10.1	-	-	467	10.1
8	<b>Total amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activities in the denominator of the applicable KPI</b>	7,401	11.3	-	-	7,401	11.3	1,398	21.1	-	-	1,398	21.1	467	10.1	-	-	467	10.1

## Template 5 Taxonomy non-eligible economic activities

Row	Economic activities	Sales revenue		Capex		Opex	
		Million €	%	Million €	%	Million €	%
1	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
2	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
3	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
4	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
5	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
6	Amount and proportion of economic activity referred to in row 1 of Template 1 that is taxonomy-non-eligible in accordance with Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the applicable KPI	-	-	-	-	-	-
7	<b>Amount and proportion of other taxonomy-non-eligible economic activities not referred to in rows 1 to 6 above in the denominator of the applicable KPI</b>	<b>56,842</b>	<b>87.1</b>	<b>4,976</b>	<b>75.0</b>	<b>3,996</b>	<b>86.5</b>
8	<b>Total amount and proportion of taxonomy-non-eligible economic activities in the denominator of the applicable KPI</b>	<b>56,842</b>	<b>87.1</b>	<b>4,976</b>	<b>75.0</b>	<b>3,996</b>	<b>86.5</b>