

Our Strategy

GRI 203

Chemistry is our passion. We make use of this passion for our customers: We want to offer them the best possible solutions and help them achieve their sustainability goals. With our products and technologies, our innovative and entrepreneurial spirit and the power of our Verbund integration, we want to grow profitably and, at the same time, create value for society and the environment. This is our goal, which is embedded in our corporate purpose: We create chemistry for a sustainable future.

In this section:
 Strategic Action Areas
 Values and Global Standards
 Business Models of the Segments
 Steering Concept
 Targets and Target Achievement 2023
 Investments and Portfolio Measures
 Sustainability Concept
 How We Create Value
 Innovation

Humankind is facing enormous challenges in order to preserve a world worth living in for future generations. The climate is changing, natural resources are becoming scarcer, pressure on ecosystems is increasing and our growing world population needs to be fed. More and more urgently than ever, solutions are needed for a sustainable future. Chemistry plays a key role here. In almost all areas of life, it can pave the way to greater sustainability and accelerate the transformation needed to achieve this. Our innovative products, solutions and technologies help to improve quality of life and protect the environment as well as the climate. We achieve this by using raw materials more efficiently, reducing waste and enabling the production of healthy and affordable food as well as climate-smart mobility.

At the same time, BASF is also undergoing **profound changes**. We are transforming our company and breaking new ground to increase our profitability and achieve climate neutrality. We are facing up to the challenge of making this change socially just. This involves managing long-term policy decisions like the European Green Deal, overcoming the consequences of current geopolitical conflicts and driving forward digitalization.

Our transformation along the value chain

Supply chain	Production		Products
<p>Energy</p> <p>Renewable energy,¹ low-emission hydrogen, combined heat and power generation</p> <p>Raw materials</p> <p>Renewable and recycled raw materials, raw materials based on the use of CO₂</p> <p>Infrastructure</p> <p>Network expansion and infrastructure for the transportation of hydrogen and CO₂</p> <p>Suppliers</p> <p>Sustainability evaluations, Supplier CO₂ Management Program</p>	<p>Customer-focused production</p> <p>Minimized transportation routes</p> <p>Optimized Verbund structures</p> <p>Efficient value chains</p> <p>Digitalization and automation</p> <p>Efficient processes²</p> <p>Operational excellence</p> <p>Energy and resource-efficient processes</p>	<p>Emission-free steam generation</p> <p>Electrified processes, energy recovery</p> <p>Pioneering technologies</p> <p>Emission-free and low-emission processes³</p> <p>Key technologies: batteries,⁴ polymers, biotechnology</p> <p>Circular economy</p> <p>New material cycles and recycling technologies</p>	<p>Solutions for a sustainable future</p> <p>Low-emission, innovative products (pioneers, contributors)⁵</p> <p>Climate-smart mobility; healthy, affordable food; efficient construction</p> <p>Business models</p> <p>Digitalized and circular approaches</p> <p>Services</p> <p>Transparency (product carbon footprint, corporate carbon footprint), take-back systems</p>

Selected projects in the 2023 reporting year

- Inauguration of the Hollandse Kust Zuid offshore wind farm
For more information, see page 105
- New supercomputer Curiosity with increased computing power
For more information, see page 30
- Electrically heated steam cracker furnaces: demonstration plant close to completion
For more information, see page 107
- Battery materials and recycling: our investment in Schwarzeide, Germany
For more information, see page 32
- Innovation driver: new Sustainable Solution Steering method
For more information, see page 48

At the same time, these challenges also open up numerous opportunities for new business areas and innovative products. All of this requires a clear vision, responsible action as well as a high degree of creativity and flexibility.

We want to grow profitably and sustainably. To this end, we have set ourselves ambitious targets and defined concrete measures to achieve them: To increase our profitability, we are strengthening our **competitiveness** with our cost savings program focusing on Europe and we are adapting our Verbund structures in Ludwigshafen, Germany, to ensure the site remains future-proof (see page 26). We are investing in **growth markets**, particularly in Asia, with China as the largest and most important growth driver of global chemical production. Furthermore, we are undergoing a fundamental transformation in the way we steer our company. As part of our **Differentiated Steering** concept, we are implementing new financial steering indicators tailored to each business. Our operating divisions are also continuing to adapt their specific business models and processes – supported by customized process structures, IT systems and governance frameworks (see page 37 onward).

To further embed sustainability in our business activities, we are driving **innovations for a sustainable future**, focusing our portfolio on growth areas and developing products with a lower carbon footprint. We are **pioneers in climate-neutral production**. This means we are gradually converting our energy supply from fossil fuels to renewable sources, developing new, pioneering emission-free and low-emission production processes for our products as well as strengthening the circular economy through the use of alternative raw materials and new recycling technologies.

The success of these measures depends primarily on the ideas and commitment of our employees. This is why we want to create an environment in which they can thrive and contribute to BASF's long-term success. Moreover, the diverse potential of digitalization used in our processes and business models further contributes to the successful implementation of these measures.]

 For more information on our strategic action areas, see page 30 onward

For more information on our steering concept, see page 37 onward

For more information on our targets, see page 40 onward

 For more information on our strategy, see [basf.com/strategy](https://www.basf.com/strategy)

Material topics in focus:

Climate Change GRI 3, 302

Climate change is the greatest challenge of the 21st century. Swift and resolute action is needed to achieve the targets agreed in the Paris Climate Agreement. We stand by this responsibility. In many areas, products and innovations based on chemistry are the key to a climate-neutral future – from insulation foams for energy-efficient buildings, lightweight construction components and battery materials for electromobility to more sustainable agriculture.

¶ We expanded our climate protection targets: By 2050, we want to achieve **net-zero greenhouse gas emissions** for our production (Scope 1), our energy purchases (Scope 2)¹ and our purchase of raw materials (Scope 3.1). We have set ourselves ambitious milestones on this path: By 2030, we want to reduce Scope 1 and Scope 2 emissions by 25% compared with 2018 – while growing production volumes in parallel. Compared with 1990, this translates into a reduction of around 60%. As we become increasingly transparent about our upstream emissions and want to offer more products with a low carbon footprint to our customers, we have set ourselves another intermediate target: We aim to reduce our raw materials-related emissions specifically by 15% by 2030 from the 2022 baseline.²

To achieve our climate protection targets, we are focusing on the following measures: Our electricity needs are increasingly covered using **renewable energy**. We are developing emission-free and low-emission production processes, building on lower-emission steam generation and improving the energy and process efficiency of our plants (**carbon abatement**). We are also increasingly using renewable, recycled and CO₂-based raw materials in order to close material cycles (**circularity**). To reduce our raw materials-related emissions, we are working with our suppliers.

We want to help shape the transformation towards climate neutrality in a socially just way (just transition). This requires a political and regulatory environment that promotes innovation in climate protection, makes it possible to develop new processes that are

2030 targets

-25%

Reduction in our absolute Scope 1 and 2 greenhouse gas emissions¹ compared with 2018

-15%

Reduction in our specific Scope 3.1 greenhouse gas emissions² compared with 2022

2050 target

Net-zero

Greenhouse gas emissions by 2050 (Scope 1, 2¹ and 3.1)

competitive internationally and resolutely drives forward the expansion of renewable energies. Our electricity requirements from renewable sources will increase significantly due to new, lower-emission production processes. To meet this demand, we are investing in our own power assets (wind farms and solar power plants) and are increasingly buying green electricity on the market (make & buy approach). We are also addressing the question of how climate change affects our sites and implementing climate resilience measures (see page 113).]

📖 For more information on energy and climate protection, see page 102 onward



Our priorities are clear: Growing profitably and making BASF climate-neutral.

Dr. Martin Bruder Müller
Chairman of the Board of Executive Directors

¹ Scope 1 and Scope 2 (excluding the sale of energy to third parties). Greenhouse gases are converted into CO₂ equivalents (CO₂e) in accordance with the Greenhouse Gas Protocol.
² Scope 3.1, raw materials excluding battery materials, services and technical goods, excluding greenhouse gas emissions from BASF trading business. Future adjustment of the baseline in line with the TFS guideline possible depending on the availability of further primary data.

Our Strategic Action Areas

GRI 203

BASF's strategic direction is based on a comprehensive analysis of our markets, competitors and the economic environment. We continuously monitor global trends and short-term developments and anticipate the resulting opportunities and risks. In doing so, we keep a close eye on the demands of our customers and the transformation of our company. The following six strategic action areas enable us to strengthen our leading position in a competitive environment.

Innovation

Innovation is the bedrock and driver of our success. BASF is a leader in the chemical industry with around 10,000 employees in research and development and R&D spending of around €2.1 billion in 2023. We want to further strengthen this position by driving forward our research activities, especially in agriculture, battery materials, polymer technologies and catalytic and biotechnological methods. Our research units are organizationally aligned with the needs of our customers. Customer-focused activities are directly integrated into the divisions. Research activities that are relevant to several operating divisions as well as Group-wide relevant topics are driven by the global division Group Research. In addition, we are pursuing and expanding our cooperations with customers, universities and research institutions.

We want to gear our **innovation pipeline** to sustainability – especially climate protection, circular economy and more sustainable products for our customers. This lays the foundation for future growth. We are working intensively on fundamental innovations for processes, products and business models, for example, for the low-emission production of basic chemicals, new battery materials and catalyst technologies, chemical recycling of plastics and textiles, and digital, climate-smart farming models. At the same time, we are developing new products and product improvements in all business units that can offer our customers sustainability and competitive advantages. These include surface

solutions for the aviation and wind power industries, bio-based and biodegradable active ingredients for the cosmetics, detergent and cleaner industries, and engineering plastics based on renewable or recycled raw materials.

For more information on innovation, see page 54 onward

Sustainability

We believe that the economy, environment and society are inextricably linked and interdependent. In all three areas we want to create value with our products, solutions and technologies. Already in 1994, we pledged our commitment to sustainability and since then, have systematically aligned our activities with the principles of sustainability. We want to further strengthen our position as a pioneer for sustainable solutions. We see sustainability as an integral part of our strategy as well as our targets, steering processes and business models. In doing so, our aim is to be a responsible and attractive partner for our customers, develop new growth areas and lay the foundation for the long-term success of our company. Our approach covers the entire value chain – from the responsible procurement of our raw materials and safety and resource efficiency in production to sustainable solutions for our customers.

In this context, protecting the climate is of central importance for us. We have reduced our CO₂ emissions by around 60% since 1990 – at the same time, sales product volumes have increased significantly. By 2030, we want to reduce our absolute CO₂ emissions related to our production (Scope 1) and our energy purchases (Scope 2) by 25% compared with 2018. In 2023, we also set ourselves a target for our raw materials-related emissions (Scope 3.1) to be able to offer our customers an even wider range of products with a low carbon footprint. By 2030, we want to reduce these raw materials-related emissions specifically by 15% from the 2022 baseline. Furthermore, by 2050, we want to achieve net-zero greenhouse gas emissions for our production, our energy and raw

Good to know




Supercomputer enables new research approaches

In 2023, BASF commissioned a new supercomputer in Ludwigshafen, Germany. Curiosity is the world's largest supercomputer used in industrial chemical research. It replaces the supercomputer that has been deployed since 2017. With three petaflops of computing power, the new supercomputer is considerably more powerful than its 1.75-petaflops predecessor. As the complexity of research projects is increasing, we have expanded our computing capacities accordingly.

In the personal care business area, for example, the supercomputer's complex simulations help employees to precisely predict which cosmetic ingredients harmonize optimally together to achieve the desired effect. At an early stage in the development of crop protection products, the supercomputer uses molecular modeling to quickly identify suitable compounds that are effective and environmentally sound. However, the supercomputer is also used in projects outside of research and development, for example, to optimize plant components in production operations.

materials purchases. To achieve our **climate protection goals**, we are relying on the use of renewable energy, taking targeted measures to avoid CO₂ emissions, working to close material cycles and working together with our suppliers to reduce emissions in the supply chain (see page 29).

We are focusing our product portfolio even more strongly on resource efficiency, climate change and energy as well as circular economy in order to meet the increasing sustainability requirements of our customers with innovative solutions and to comply with regulatory requirements. That is why we have updated our **Sustainable Solution Steering** (TripleS) methodology for steering the product portfolio based on sustainability criteria (see page 48). We applied the new methodology for the first time in the 2023 financial year and developed a new key performance indicator, "Sustainable-Future Solutions" sales, which indicates the share of our products with a particular contribution to sustainability in the relevant sales. In addition, a digital solution enables us to calculate the carbon footprint of our approximately 45,000 sales products – from raw materials extraction to the factory gate ("cradle-to-gate"). This enables us to create transparency around the carbon intensity of our products and optimize our processes on this basis: We are increasingly using low-emission and renewable raw materials and are continuously expanding our product portfolio with a lower carbon footprint.

 For more information on energy and climate protection and our carbon footprint, see page 102 onward
For more information on the circular economy, see page 46 onward

Production

The production and processing of chemicals is our core business. Our comprehensive product portfolio ranges from basic chemicals to custom system solutions. The strength of our company lies in the **Verbund** and its integrated value chains. This enables us to achieve reliable, efficient and CO₂-optimized production and leverages synergies in the development and application of new technologies and the use of digital solutions. At the same time, the Verbund is the

foundation for meeting the increasingly diverse needs of our customers and markets with a differentiated offering.

Our strategy is to produce locally for local markets, close to our customers. We plan to invest €19.5 billion worldwide between 2024 and 2027 to expand our capacities based on market demand and to further increase the availability, efficiency and flexibility of our plants. In particular, we want to benefit from the strong growth of the chemical market in Asia (see "Portfolio"). Our global production footprint contributes to the regional diversification of our sales and earnings distribution, making it part of our risk management. It helps us to compensate for economic weaknesses and a lack of growth prospects in individual markets within the BASF Group. This currently applies to Europe and especially Germany, where high energy prices compared with other regions and a challenging regulatory environment are negatively impacting our competitiveness and growth.

 For more information on our production sites and the Verbund structure, see page 23

Digitalization

We want to leverage the diverse growth potential of digitalization, seize the associated opportunities to the benefit of our customers and strengthen our competitiveness. To achieve this, we promote digital skills among our employees, cooperate with partners and make digital technologies and ways of working an integral part of our business.

Digitalizing our plants and systematically analyzing data enables us to further automate processes. In this way, we steer the capacity, availability and efficiency of our plants in line with market conditions, for example, by simulating value streams within our Verbund structure or through predictive maintenance. Linking data from different sources and using artificial intelligence (AI) opens up numerous opportunities for us to manage our business more efficiently and improve our processes, for example, in logistics. Using AI also supports our transformation to climate neutrality and a

circular economy, for example by automatically calculating product-specific carbon footprints or improving management of value chains.

The combination of products, services and digital offerings also creates **new business models** and advantages for our customers, such as in the automotive and personal care industry as well as agriculture. In addition, digitalization enables us to further strengthen our innovative power. In 2023, we started up our new supercomputer Quiriosity, which is considerably more powerful than its predecessor of the same name (see page 30). At the same time, we are working on new technologies such as quantum computing, for instance as a founding member of the Quantum Technology and Application Consortium (QUTAC). We are also involved in other digitalization initiatives such as the Catena-X network, where we are working with partners to develop a system for standardized data exchange in the automotive value chain. By using a standardized calculation logic for the product carbon footprint (PCF), we help to develop solutions that can reduce CO₂ emissions.

Portfolio

We are steering our portfolio toward **innovation-driven growth areas**. Following major acquisitions in recent years (battery materials, engineering plastics, agricultural solutions), we plan to further develop our portfolio through smaller, bolt-on acquisitions in the future. Major divestitures (pigments, construction chemicals, paper and water chemicals, kaolin minerals) in previous years were followed by the carve-out of the emissions catalysts and precious metals services business into the new BASF Environmental Catalyst and Metal Solutions (ECMS) entity and the divestiture of BASF's nickel-based catalysts production site in De Meern, Netherlands, to IQatlyst B.V. In addition, at the end of 2023, BASF, LetterOne and Harbour Energy plc (Harbour) signed an agreement to combine the businesses of Wintershall Dea and Harbour. With this agreement, large parts of Wintershall Dea's exploration and production business

will be transferred to Harbour – a major step toward achieving our announced strategic goal of exiting the oil and gas business.

At the same time, we are strengthening the basis for our organic growth with investments. In 2023, BASF began construction of the third expansion phase of the production plants for methylene diphenyl diisocyanate (MDI) at its Verbund site in Geismar, Louisiana. Together with Yara, we are also evaluating the development and construction of a production plant for blue ammonia¹ using carbon capture and storage (CCS) in the U.S. Gulf Coast region. We are enhancing our range of fragrances and flavors in Europe at the Ludwigshafen site in Germany, with additional plants for menthol and linalool scheduled for startup in 2026. At our site in Chalampé, France, we are building a new hexamethylenediamine (HMD) plant and we are expanding our polyamide 6.6 production in Freiburg, Germany. In 2023, we started up an expanded complex for ethylene oxide and ethylene oxide derivatives at the Verbund site in Antwerp, Belgium. In addition, a new world-scale production plant for alkylethanolamines will be built there by 2024. The Asian market will play a key role in our future growth. With a share of around 50%, **China** is already by far the world's largest chemical market and is a key driver of growth in global chemical production. We have a strong production, sales and innovation base in Asia, and in particular in China, which we will continue to expand. Our largest project is the new Verbund site in Zhanjiang in the southern Chinese province of Guangdong, which we are planning from the outset as a pioneer for sustainability. Once completed, Zhanjiang will be our third-largest Verbund site after Ludwigshafen and Antwerp. The implementation of the project is on schedule. Following the startup of the engineering plastics plant in 2022, a plant for the production of thermoplastic polyurethanes came onstream in 2023. The focus in Zhanjiang is now on the step-by-step establishment of the Verbund structure, starting with the construction of a steam cracker along with downstream plants for the production of petrochemicals and intermediates as well as plants for surfactants and citral. In addition, since 2022 we have been expanding our Verbund site in

Nanjing, China, which we operate together with Sinopec. A new tert-butyl acrylate plant came on stream there by the end of 2023 and we have expanded production capacities for several products in the Petrochemicals and Intermediates divisions.

We also reached important milestones in our global **battery materials and battery recycling business** in 2023. This includes investments to increase our production capacities and to establish innovative recycling concepts in the three key regions of Asia, North America and Europe: In June 2023, we opened Europe's first colocated center for battery materials production and battery recycling² at the Schwarzheide site in Germany. At our U.S. site in Battle Creek, Michigan, we will offer cathode active materials from recycled metals on a commercial scale from 2024. We are also currently expanding the capacity for cathode active materials of BASF Shanshan Battery Materials Co., Ltd. in China and the new production lines at the Changsha and Shizuishan sites will gradually be put into operation. In Onoda, Japan, work to expand production capacities for cathode active materials at BASF TODA Battery Materials LLC has been underway since the end of 2022. This is scheduled for startup in the second half of 2024.

 For more information on material investments and portfolio measures, see page 42 onward

Employees

Our employees are key to BASF's success. That is why we believe that it is important to have an attractive total offer package and an inspiring working environment that fosters and develops employees' individual talents and enables them and their teams to perform at their best. We are pursuing three action areas to make our high-performance organization even more so: empowerment, differentiation and simplification of structures and processes. At the same time, we encourage and promote a leadership culture that empowers our employees to respond to customer needs quickly and efficiently with a solution orientation. We value diversity in people, opinions and experience as being crucial to creativity and innovation. We embrace bold ideas, help our employees to

implement them and learn from setbacks. This is founded on an open feedback and leadership culture based on mutual trust, respect and dedication to top performance.

 For more information on employees, see page 132 onward

¹ Blue ammonia is produced using carbon capture and storage (CCS) technology to reduce CO₂ emissions from the production process. It is identical to conventionally produced ammonia.

² Our investment and research activities in Schwarzheide and Ludwigshafen, Germany, receive funding from the German Federal Ministry for Economic Affairs and Climate Action and the Ministry for Economic Affairs, Labor and Energy of the German state of Brandenburg under the IPCEI on Batteries (funding code 16BZF101A/B).

Material topics in focus:

Our Values and Global Standards GRI 2

As an international chemical company, we operate in markets and countries with different requirements and conditions. We always follow our corporate values and standards in order to act responsibly and secure our license to operate. By living these values every day, we ensure a culture of respect for our customers, partners and employees.

Together with our Code of Conduct and our global standards, our CORE values lay the foundation for responsible conduct and trust-based relationships with our stakeholders. They define how we want to work together:

- **C – creative:** We make great products and solutions for our customers. This is why we embrace bold ideas and give them space to grow. We act with optimism and inspire one another.
- **O – open:** We value diversity, in people, opinions and experience. This is why we foster feedback based on honesty, respect and mutual trust. We learn from setbacks.
- **R – responsible:** We value the health and safety of people above all else. We make sustainability part of every decision. We are committed to strict compliance and environmental standards.
- **E – entrepreneurial:** We focus on our customers, as individuals and as a company. We seize opportunities and think ahead. We take ownership and embrace personal accountability.

Our standards are based on, and in some cases, exceed existing laws and regulations and take internationally recognized principles into account. We respect and promote:

- The Universal Declaration of Human Rights and the two U.N. Human Rights Covenants
- The 10 principles of the U.N. Global Compact
- The core labor standards of the International Labour Organization (ILO) and the Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy

- The OECD Guidelines for Multinational Enterprises
- The Responsible Care® Global Charter
- The German Corporate Governance Code

The main guidelines are primarily summarized in our Group regulations on compliance, human rights, labor and social standards and in the Supplier Code of Conduct. We want to ensure that we act in line with the applicable laws and uphold our responsibility to the environment and society with our comprehensive management and monitoring systems.

The Corporate Audit department continuously monitors compliance with requirements. The head of our legal and compliance organization also acts as Chief Human Rights Officer and oversees the overarching risk management.]

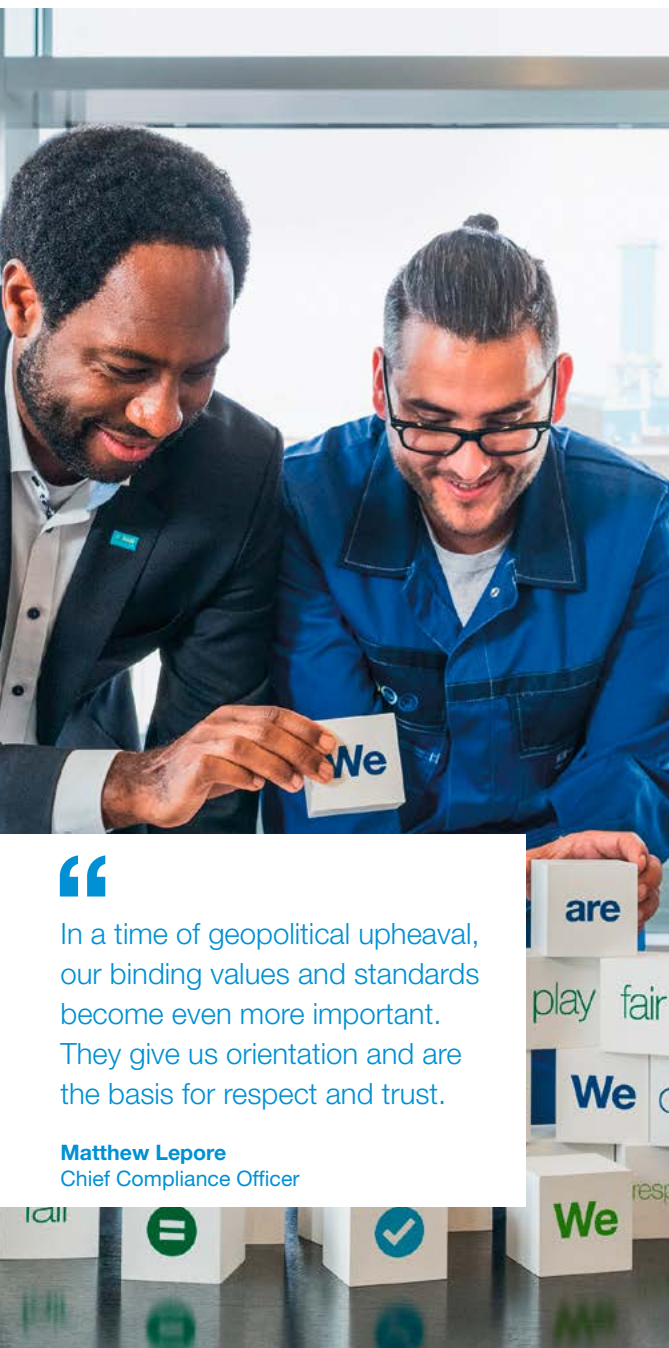
[For more information on human and labor rights, see page 154 onward](#)

[For more information on compliance, see page 202 onward](#)

[For more information on responsible procurement and the German Supply Chain Due Diligence Act, see page 158 onward](#)

[For more information on the Responsible Care Management System, see page 101 and 131](#)

[For more information on the Code of Conduct, see basf.com/code-of-conduct](https://basf.com/code-of-conduct)



In a time of geopolitical upheaval, our binding values and standards become even more important. They give us orientation and are the basis for respect and trust.

Matthew Lepore
Chief Compliance Officer

Business Models of the Segments

Our segments' business models are aligned with their specific strategic action areas. Topics such as customer orientation, innovation and sustainability are the cornerstones of future business success. Thanks to our extensive industry knowledge, we are aware of the particular challenges our customers are facing and we can offer specific solutions.

Chemicals

The Chemicals segment comprises the operating divisions Petrochemicals and Intermediates and is at the **heart of the Verbund**. Its production facilities reliably supply BASF's other segments with chemicals to produce higher value-added products and in this way, ensures the competitiveness of the BASF Group. It also markets high-quality basic chemicals and intermediates to customers in downstream industries.

The segment creates value through process and product innovation and invests in research and development to implement new, sustainable technologies and make existing technologies even more efficient. Thanks to our integrated manufacturing processes, the carbon footprint of several of our products is significantly lower than that of our competitors. Technological leadership, operational excellence and a clear focus on individual value chains are among our most important competitive advantages. We concentrate on the essential success factors of the traditional chemicals business: leveraging economies of scale and the advantages of our Verbund, high asset reliability, continuous optimization of access to raw materials, lean and energy efficient processes, and reliable, cost-effective logistics. We are continuously developing our value chains and are expanding our market position – especially in Asia – with investments and collaborations in growth markets.

Furthermore, we are constantly improving our **global production structures** and aligning these with regional market requirements. In 2023, for example, we expanded capacities for ethylene oxide and ethylene oxide derivatives at the Verbund site in Antwerp, Belgium, to support the continuous growth of our customers and to enhance our market position in Europe. We also started up our state-of-the-art Superabsorbents Excellence Center there. With this investment, we aim to increase the innovation capabilities for our superabsorbents business.

Moreover, we are modernizing our chloroformates and acid chlorides plant in Ludwigshafen, Germany, so that we can continue to reliably support our customers' growth with these products.

Materials

In BASF's Materials segment, the two divisions Monomers and Performance Materials supply high-quality plastics precursors and develop new plastics applications, high-performance materials, systems and digital solutions along their isocyanate and polyamide value chains. Our product portfolio is unique in the industry. This allows us to drive the sustainable transformation of BASF and our various customer industries forward. We are active along the value chains for important durable plastics, from monomers to polymers and their formulated specialties.

With our specific technology knowledge, we are working on **forming and closing loops** and converting plastics back into primary raw materials for the chemical industry. This is how we help to minimize plastic waste, save fossil resources and reduce CO₂ emissions in plastics production. Examples of this are our biomass-balance products, such as our Ultramid® Cycled®, based on end-of-life tires, products with a significantly reduced carbon footprint and certified compostable bioplastics. In this way, we meet the growing needs in our key markets and help our customers to achieve their sustainability goals.

We want to grow primarily organically by differentiating ourselves through our application expertise and industry knowledge while creating the greatest possible value in our isocyanate and polyamide value chains. Comprehensive knowledge in the field of material simulation is our unique selling point in the industry and enables us to meet customer requirements individually.

We are continuously expanding the range of applications in our portfolio with tailor-made services and product offerings. Our global production network enables us to provide our solutions wherever our customers are. At the same time, we are constantly reviewing the efficiency of our production network and streamlining it where necessary, for example as part of our adaptation of the Verbund structures in Ludwigshafen, Germany.

Industrial Solutions

The Industrial Solutions segment, which consists of the Dispersions & Resins and the Performance Chemicals divisions, markets and develops **ingredients and additives for industrial applications**. These include fuel and lubricant solutions, dispersions, resins, additives, electronic materials and plastic additives. We concentrate on research and development with the aim of enabling more efficient resource use and developing high-performance and more sustainable products and processes, for example, in polymer dispersions, resins and plastic additives. At the same time, this also enables our customers to contribute to sustainability through their applications and processes. Other focus areas are efficient production setups, backward integration in our Production Verbund's value chains, capacity management, and technology and cost leadership.

Our global presence enables us to operate close to our customers and their industries. As a reliable partner, we offer high-quality products with high value added for our customers. Together with them, we work on new solutions and strive for long-term partnerships that create profitable growth opportunities for both sides. To achieve this, we draw on our innovative strength and our many years of experience and in-depth industry expertise. Through our in-depth application knowledge and technological innovations, we strengthen customer relationships in key industries such as the automotive, electronics, plastics and coatings industries.

Surface Technologies

In the Surface Technologies segment and its operating divisions Catalysts and Coatings, the focus is on the **protection, modification and development of surfaces**. Together with our customers, we develop novel products and technologies for catalysts, coatings and battery materials. We also offer precious and base metal as well as surface treatment services. Our aim is to drive growth by leveraging our portfolio of technologies to find the best solution for our customers in terms of functionality and cost. This in turn helps our customers to drive forward innovation in their industries and contribute to sustainable development.

Key growth drivers for us are the positive medium-term development of the automotive market, especially in Asia, the trend toward **sustainable, low-emission mobility**, and the associated rise in demand for battery materials for electromobility. We are developing customized, more sustainable solutions in these growth areas for battery materials, emission control, recycling and innovative coatings in close cooperation with our customers. Our specialties and system solutions in these areas enable our customers to stand out from their competitors.

The automotive industry is undergoing a fundamental transformation. As one of the largest chemicals suppliers to this industry, we will further strengthen our focus on battery materials and recycling and pursue our ambitious growth plan. We have established a new entity (BASF Environmental Catalyst and Metal Solutions) within the Catalysts division for mobile emissions catalysts, automotive catalysts recycling and associated precious metal services. The carve-out was completed in July 2023 as planned. The new organizational structure prepares the business for the upcoming changes in the internal combustion engine market and creates strategic options.

Nutrition & Care

In the Nutrition & Care segment, which comprises the operating divisions Care Chemicals and Nutrition & Health, we strive to expand our position as a leading **provider for nutrition and care ingredients for consumer applications**. Future growth in our markets will be driven by trends such as growing consumer awareness and the resulting demand for sustainable product solutions, natural and organic ingredients and their traceability. Moreover, digitalization, a focused technology and product portfolio, and close cooperation with our customers is crucial to meeting these dynamic market requirements both now and in the future.

We will therefore continue to develop our capabilities in areas such as biotechnology and broaden our portfolio with bio-based and biodegradable products. We support our customers globally with innovative and sustainable products, solutions and concepts, especially for the cosmetic industry as well as for cleaning and washing. In the Nutrition & Health division, we have sharpened our focus to be a supplier for nutrition and aroma ingredients, so we can best serve our customers with reliable and high-quality products.

We are also pursuing a targeted, accelerated marketing strategy and expanding our portfolio for natural and biotechnological products.

From pharma solutions, BASF supplies excipients for human therapeutic drug formulation. Our biopharma ingredients serve a variety of areas, from bioprocessing and formulation of proteins to vaccines and antibodies.

Agricultural Solutions

In the Agricultural Solutions segment, we are working to achieve the balance between economic, environmental and social value creation for a **sustainable and efficient agricultural sector**. While natural resources are limited, the demand for food, feed, fiber and energy is increasing, given the constant growth of the world's population.¹ Accordingly, even more efficient farming is essential. Balanced agriculture is a key enabler in producing enough healthy, affordable food and responding to changing consumer behavior while reducing the impact on the environment.

As one of the world's leading agricultural solutions companies, we are making a positive impact on sustainably transforming agriculture and food systems. Our innovation-driven strategy for agriculture focuses on selected crops and their appropriate cultivation systems: soy, corn (maize) and cotton in the Americas; wheat, canola (oilseed rape) and sunflower in North America and Europe; rice in Asia; and fruit and vegetables globally. We integrate sustainability criteria into all business and portfolio decisions. In doing so, we help farmers achieve better yields, protect the planet and produce economically.

We leverage our expertise in research and development and our deep understanding of the way individual growers manage their farms to provide crop-specific offers across technologies. These include novel solutions for seeds, traits, fungicides, herbicides, insecticides, biological solutions and digital products tailored to the farming needs of their region and crop systems.

Good to know

¶ We are committed to sustainable farming to help farmers not only produce more, but also better. We focus on four areas in particular:

More climate-smart farming: We are tackling the challenges of climate change together. With innovative technologies that increase crop yield, improve farm management, and reduce environmental impact. Our technologies include nitrogen management products, herbicides that facilitate conservation tillage, and Seeds & Traits for more stress-resilient crops. We are contributing to more carbon-efficient and weather-resilient farming through our Global Carbon Farming Program.

🔗 For more information on the Carbon Farming Program and climate-smart agriculture, see agriculture.basf.com

More sustainable solutions: We systematically steer our innovation pipeline according to sustainability criteria from an early stage, as well as assessing each product in our sales portfolio with respect to its contribution to sustainability as part of our Sustainable Solution Steering. This is how we continually develop innovations and shape a portfolio that offers added value for farmers, the environment and society.

🔗 For more information on TripleS (Sustainable Solution Steering), see basf.com/en/sustainable-solution-steering

Digital agriculture: Digitalization is transforming agriculture and making it more resource-efficient and sustainable. Our digital farming solutions are designed to help to produce more with less and grow businesses profitably while improving the environmental footprint of agriculture.

🔗 Discover an example of our digital farming solutions at onesmartspray.com

Smart Stewardship: Our tools and services are tailored to farmers' daily work. For the safe use of our products, we offer support in the following areas: access to tools and services, protective equipment, customized training, digital solutions and new and future-oriented application technologies such as drones. ¶

🔗 For more information on Smart Stewardship, see page 149 onward

¹ Compared with 2022, the world's population is expected to grow by around 2 billion people by 2050; source: U.N. World Population Prospects 2022

Our Steering Concept

We have firmly anchored our goal of growing profitably and creating value for society in our strategy. Both financial and nonfinancial key figures are an integral part of our steering concept. Until the end of 2023, return on capital employed (ROCE) and CO₂ emissions were our most important key performance indicators. From 2024 onward, we will pursue a Differentiated Steering concept. Industry-specific key performance indicators tailored to the respective business will enable us to increase the competitiveness of our business units and thus the profitability of the BASF Group. We use EBITDA before special items and free cash flow as the new most important key performance indicators for short and medium-term steering. ROCE will continue to play a central role as a medium-term strategic steering indicator.

The BASF Group's steering concept in 2023

Until now, the return on capital employed (ROCE) was used as the key target and steering indicator for the BASF Group. In line with our strategic targets, we aimed to achieve a ROCE considerably above the cost of capital percentage every year. With ROCE, the same data was used for our value-based management, external communication with the capital markets and variable compensation.

We are also pursuing the target of reducing our greenhouse gas emissions. Therefore, CO₂ emissions (Scope 1 and 2)¹ are defined as a steering-relevant indicator, and we report on them as the most important nonfinancial key performance indicator. By 2030, we want to reduce our absolute greenhouse gas emissions by 25% compared with the 2018 baseline.

Further development of the steering concept as of 2024

To increase the value creation of the individual operating divisions, we are introducing a **Differentiated Steering** concept, which we will report on at segment level. Key criteria in the selection of specific steering indicators are the respective strategic direction of the business, the role of the business in BASF's portfolio and the contribution of the business to achieve corporate targets. We are focusing on industry-specific value drivers, which enables us to better integrate market conditions into our management and strengthen our business operations. We will also benchmark our performance even more closely against that of our competitors.

This is why we have further developed our financial steering concept for the financial years from 2024 onward. Here, we will differentiate between short-term and medium-term steering more clearly than before. We have established two new most important financial key performance indicators for the BASF Group's steering:

- Income from operations before depreciation, amortization and special items (EBITDA before special items)
- Free cash flow

ROCE, our most important financial key performance indicator up to and including the 2023 business year, is significantly influenced by strategic decisions such as acquisitions and divestitures as well as investments. Short-term influencing factors, such as the development of earnings or current operating assets, can be better controlled directly via earnings or cash flow figures.

Return on capital employed remains a medium-term key financial target for the BASF Group. We use ROCE to emphasize the importance of managing our return on capital employed over time.

Scope 1 and 2 CO₂ emissions remain the most important non-financial key performance indicator at Group level. We see sustainability as a decisive factor for our long-term business success.

The differentiated approach to steering the operating business units takes into account the different business models of the segments. In the future, capital-intensive segments (Chemicals, Materials, Surface Technologies and Agricultural Solutions) will be measured by their absolute contribution to EBITDA before special items, an earnings indicator that describes operational performance independent of age-related depreciation and amortization of assets and any impairment or reversal of impairment. The key figure is therefore particularly suitable for indicating the profitability of a business and for comparisons with businesses in similar sectors.

¹ Scope 1 and Scope 2 (excluding the sale of energy to third parties). Greenhouse gases are converted into CO₂ equivalents (CO₂e) in accordance with the Greenhouse Gas Protocol.

The success of the Industrial Solutions and Nutrition & Care segments primarily depends on the generation of new and profitable business. Therefore, the most effective measure of their performance is a combination of sales growth and margin. Accordingly, the EBITDA margin before special items is the link to the BASF Group's key performance indicator.

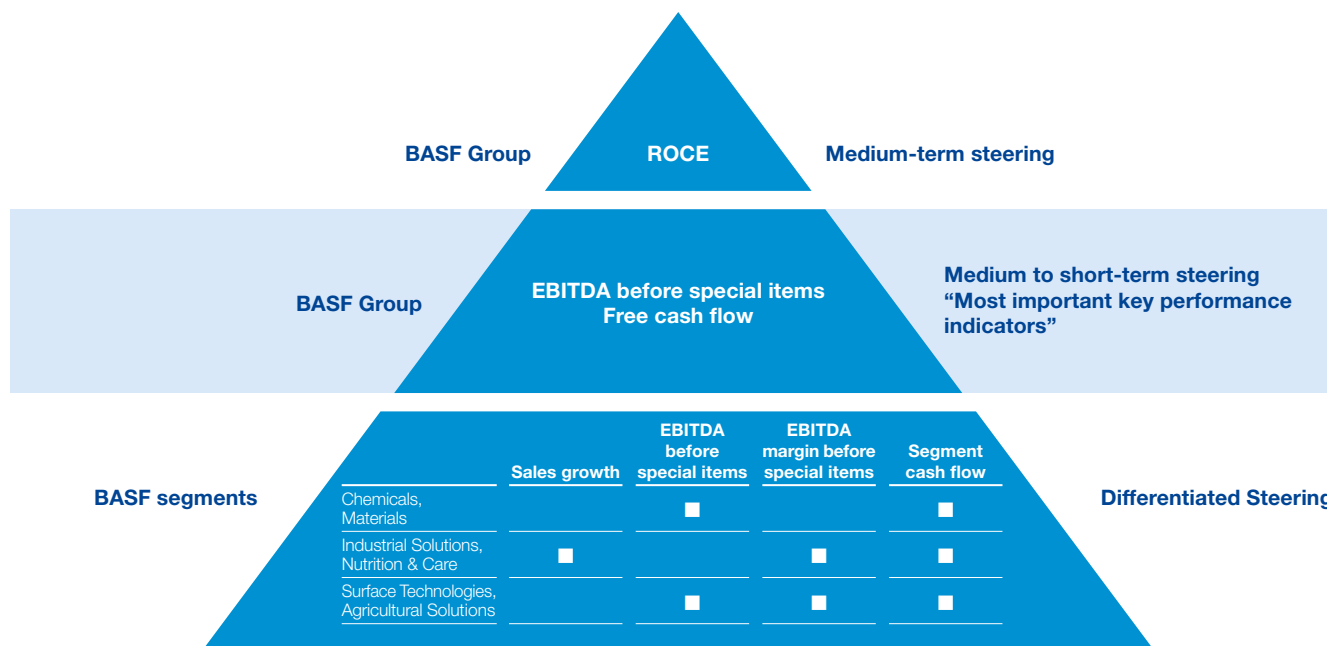
To manage cash flow at segment level, we use a specific key figure, segment cash flow, which includes the elements of free cash flow that can be managed by the operating divisions. This key performance indicator is relevant in all segments.

Value-based management throughout the company

The target agreement process is an important part of our value-based management. It aligns individual employee targets with BASF's targets. The most important financial indicator in the operating business has so far been ROCE. The other units' contribution to value is also assessed according to effectiveness and efficiency on the basis of quality and cost targets. To assess this, we use metrics such as BASF's internal service score in the service units.

We are gradually adapting the target agreement process to the Differentiated Steering concept. From 2024 onward, variable compensation for senior executives in all business units and the Service, Research and Corporate Center units will be based on targets derived from the new key performance indicators for the steering of the respective business unit or the BASF Group.

Differentiated financial steering approach of the BASF Group as of 2024



Key figures in reporting

For the BASF Group, we have been using EBIT before special items and capital expenditures (capex) until now as key performance indicators that have a direct impact on ROCE. EBIT before special items is used to steer profitability at Group and segment level. Capital expenditures are used to manage capital employed in the BASF Group. These comprise additions to property, plant and equipment excluding additions from acquisitions, IT investments, restoration obligations and right-of-use assets arising from leases. Furthermore, we have been commenting on and forecasting sales at Group and segment level so far in our financial reporting as a

significant driver for EBIT before special items and our most important key performance indicator, ROCE.

In line with the new steering concept, in future financial reporting, we will comment on and forecast the most important key performance indicators EBITDA before special items and free cash flow for the BASF Group and EBITDA before special items and segment cash flow for the segments. We will continue to forecast capital expenditures on property, plant and equipment¹ as a key factor for free cash flow.

In addition, we will continue to analyze and comment on sales at Group and segment level, but we will not forecast them.

¹ Additions to property, plant and equipment excluding acquisitions, restoration obligations, IT investments and right-of-use assets arising from leases

Calculation of ROCE and cost of capital

ROCE is calculated as the EBIT of the segments as a percentage of the average cost of capital basis.

To calculate the EBIT of the segments, we take the BASF Group's EBIT and deduct the EBIT of activities recognized under Other, which are not allocated to the divisions.

The cost of capital basis is calculated using the month-end figures and consists of the operating assets of the segments. Operating assets comprise the current and noncurrent asset items of the segments. They include property, plant and equipment as well as intangible fixed assets, integral investments accounted for using the equity method, inventories, trade accounts receivable, miscellaneous assets generated by core business activities and, if applicable, the assets of disposal groups. The cost of capital basis also includes customer and supplier financing.

We have integrated the cost of capital percentage into our ROCE target as a comparative figure. This is determined using the weighted cost of capital from equity and borrowing costs (weighted average cost of capital). To calculate a pretax figure similar to EBIT, the cost of capital is adjusted using the projected tax rate for the BASF Group for the business year. In addition, the projected net expense of Other is already provided for by an adjustment to the cost of capital percentage. The cost of equity is ascertained using the capital asset pricing model. Borrowing costs are determined based on the financing costs of the BASF Group. The cost of capital percentage for 2024 is 10% (2023: 9%).

Calculation of CO₂ emissions

We calculate the BASF Group's absolute CO₂ emissions on the basis of greenhouse gas emissions, which are the sum of direct emissions from production processes and the generation of steam and electricity (Scope 1), as well as indirect emissions from the purchase of energy (Scope 2). Direct emissions from the generation

of energy for third parties are not considered here. Relevant emissions include other greenhouse gases according to the Greenhouse Gas Protocol, which are converted into CO₂ equivalents.

[For more information on our CO₂ emissions and climate protection targets, see page 102 onward](#)

Calculation of EBITDA before special items

EBITDA is the result from income from operations reported in the Consolidated Financial Statements plus depreciation, amortization, impairments and reversals of impairments on property, plant and equipment and intangible assets. This is adjusted for special items that may arise from the integration of acquired businesses, from restructuring measures, gains or losses resulting from divestitures and sales of shareholdings, and other expenses and income that arise outside of ordinary business activities. The EBITDA margin before special items is calculated as the ratio of EBITDA before special items to sales revenue. This relative indicator enables operational performance to be compared independently of the size of the underlying business.

Calculation of free cash flow and segment cash flow

Segment cash flow measures the cash inflow and outflow of a segment and thus the contribution to the BASF Group's free cash flow. It includes only those amounts that can be controlled by the segment and is calculated from the EBITDA, changes in inventories and trade accounts receivable, other extraordinary adjustments, for example in connection with acquisitions and divestitures, less payments made for property, plant and equipment and intangible assets. The BASF Group's free cash flow additionally includes transactions that are not allocated to operations as well as adjustments of other noncash effects. Free cash flow is the cash flows from operating activities less payments made for property, plant and equipment and intangible assets.

Reconciliation of segment cash flow to free cash flow

EBITDA
+ Changes in inventories
+ Changes in trade accounts receivable
+ Other changes
– Payments made for property, plant and equipment and intangible assets
= Segment cash flow
+ Net income from shareholdings
+ Financial result
+ Income taxes
+ Changes in other balance sheet items and adjustment of other noncash effects
= Free cash flow

Targets and Target Achievement 2023

For us, business success tomorrow means creating value for the environment, society and business. That is why we pursue ambitious targets along our entire value chain. We report transparently on target achievement so that our stakeholders can track our progress.

Our objective is profitable growth – we set ourselves the following targets up to and including 2023: We want to grow sales volumes faster than global chemical production, further increase our profitability, achieve a return on capital employed (ROCE) considerably above the cost of capital percentage and increase the dividend per share every year based on a strong free cash flow or at least maintain it at prior-year level.

In addition to these financial targets, we have set ourselves broad sustainability targets. We want to considerably reduce our CO₂ emissions in the coming years. In addition to the targets for reducing our emissions from production (Scope 1) and the purchase of energy (Scope 2),¹ we set ourselves a new target for our purchase of raw materials (Scope 3.1)² in 2023. We have also added Scope 3.1 emissions to our net-zero target for greenhouse gas emissions by 2050 (see page 29). As part of this target, we are working to strengthen sustainability in our supply chains and use resources more responsibly.

We want to align our product portfolio even more strongly with climate protection and the circular economy. To achieve this, we have further updated the methodology used to assess our product portfolio against defined sustainability criteria and defined a new target figure for products with a particular contribution to sustainability (see page 48).

We want to further improve safety in production and since 2023 we have been reporting according to a new system that focuses on high-severity work-related accidents and incidents.

We also aim to increase the number of women in leadership positions and create a working environment in which our employees feel that they can thrive and perform at their best.

The objective of these targets is to grow profitably, and at the same time, contribute to the United Nations' Sustainable Development Goals (SDGs). We are focusing here on issues that we as a company can influence – especially SDG 2 (Zero hunger), SDG 5 (Gender equality), SDG 6 (Clean water and sanitation), SDG 7 (Affordable and clean energy), SDG 8 (Decent work and economic growth), SDG 12 (Responsible consumption and production) and SDG 13 (Climate action).]

 For more information on financial indicators, see page 56 onward

For more information on environmental, social and governance, see page 100 onward

Good to know

Most important KPIs

BASF sets itself ambitious targets along the value chain. Two key figures were of particular importance for 2023:

- Return on capital employed (ROCE)
- Absolute CO₂ emissions (Scope 1 and 2)

These most important key performance indicators (KPIs) were the main indicators used to steer the BASF Group up to and including 2023. We also use ROCE for employee incentivization, while the achievement of targets for reducing CO₂ emissions (Scope 1 and Scope 2) influences the compensation of members of the Board of Executive Directors and senior executives.

From the 2024 financial year, we will establish two new most important key performance indicators at financial level besides CO₂ emissions in order to focus more strongly on the short-term value creation of the BASF Group: The following financial key performance indicators are therefore relevant for 2024:

- Income from operations before depreciation, amortization and special items (EBITDA before special items)
- Free cash flow

ROCE remains relevant for steering in the medium term and for incentivization.

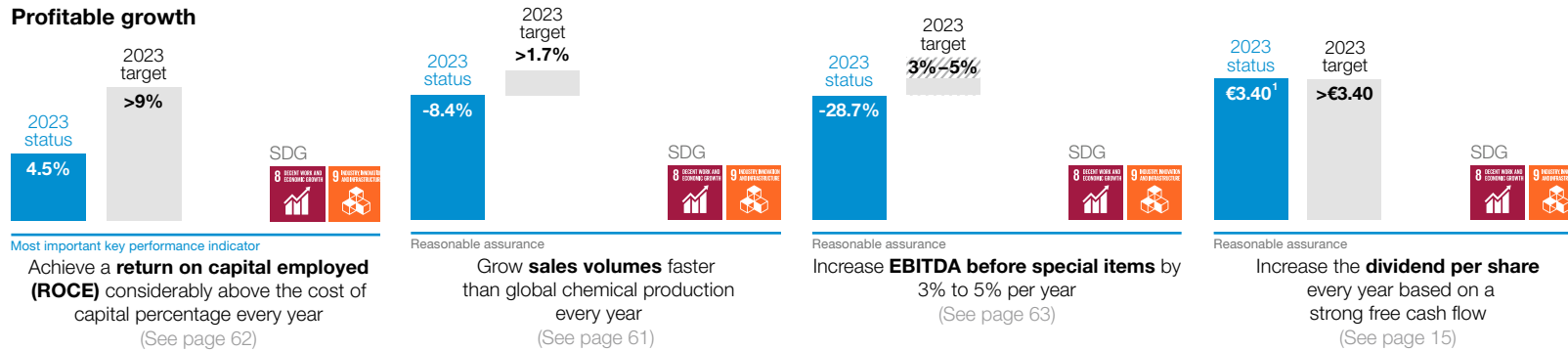
 For more information on the steering concept, see page 37 onward

 For more information on the compensation of the Board of Executive Directors, see [basf.com/compensationreport](https://www.basf.com/compensationreport)

¹ 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 CO₂ equivalents (CO₂e). The baseline year is 2018.

² Scope 3.1, raw materials excluding battery materials, services and technical goods, excluding greenhouse gas emissions from BASF trading business. Future adjustment of the baseline in line with the TIS guideline possible depending on the availability of further primary data, among other things. The baseline year is 2022.

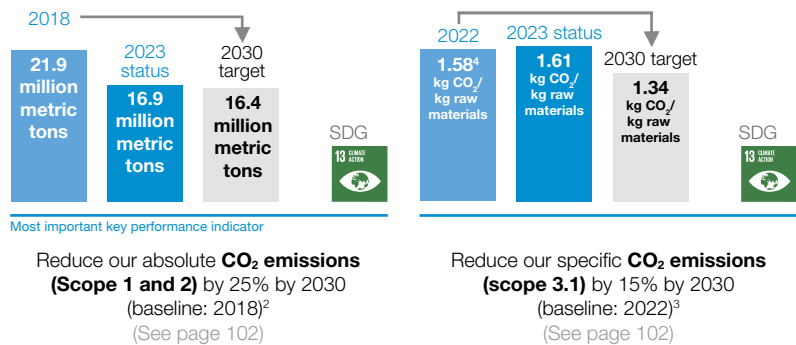
Profitable growth



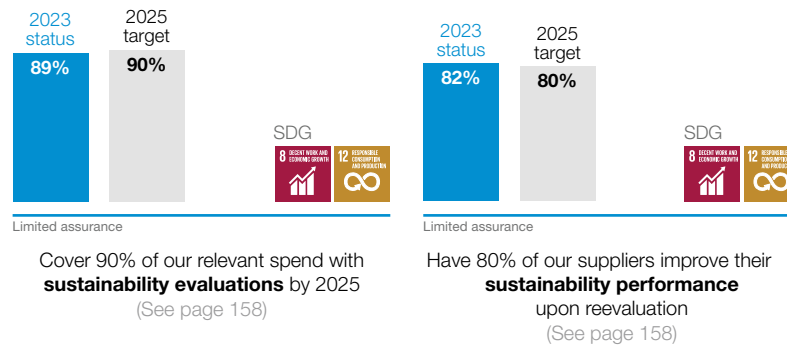
Reduction targets

- Dividend proposed by the Board of Executive Directors
- 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 CO₂ equivalents (CO₂e). The baseline year is 2018.
- Scope 3.1, raw materials excluding battery materials, services and technical goods, excluding greenhouse gas emissions from BASF trading business. Future adjustment of the baseline in line with the TFS guideline possible depending on the availability of further primary data. The baseline year is 2022.
- The figure for 2022 was adjusted due to increased data availability.
- We updated the safety targets in 2023.
- We regularly calculate the employee engagement level. The most recent survey was conducted in 2023.

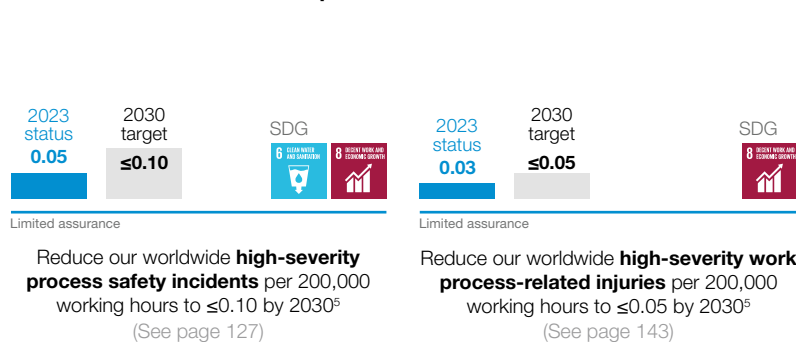
Effective climate protection



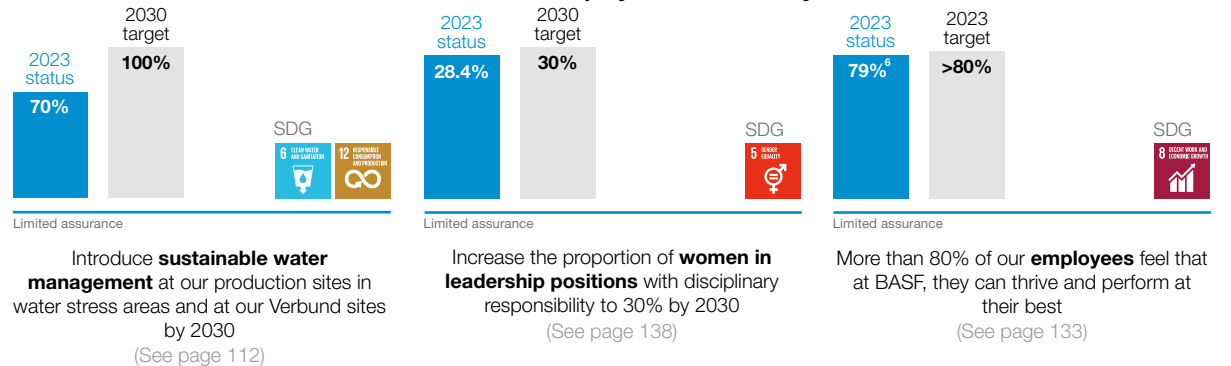
Responsible procurement



Resource-efficient and safe production



Committed employees and diversity



Material Investments and Portfolio Measures

Investments are a key driver of profitability for our targeted growth. To achieve our climate targets, we are also making targeted investments in modern and more sustainable technologies and processes. Our growth projects play a central role, particularly the new Verbund site in Zhanjiang, China, which we are planning from the outset as a pioneer for sustainability. We are continuously optimizing our portfolio through targeted acquisitions and divestitures.

At a glance

€5.2 billion

Capex¹ in 2023

€19.5 billion

Capex planned for 2024 to 2027

By investing in our plants, we create the conditions for the profitable growth we strive for and continuously improve the efficiency of existing production processes. Investments in new technologies and in the transformation of our energy supply will help to achieve our growth targets and our ambitious climate targets. For the period from 2024 to 2027, we are planning capital expenditures (capex)¹ totaling €19.5 billion, including €6.8 billion for our growth projects.²

[For more information on our investments from 2024 onward, see page 172](#)

Investments and acquisitions 2023

Million €

	Investments	Acquisitions	Total
Intangible assets	142	–	142
of which goodwill	–	–	–
Property, plant and equipment ^a	5,864	–	5,864
Total	6,006	–	6,006

^a Including restoration obligations, IT investments and right-of-use assets arising from leases

We continued to drive forward our growth projects in 2023 and further expand our position in our three key regions: Asia Pacific, North America and Europe. The Asia Pacific region and China in particular, which already has a significant influence on the growth of the global chemicals market with a share of around 50%, will continue to play a key role here. To serve the increasing needs of various growth industries in this region, we are continuously expanding our market position in China. One example of this is the construction of our new integrated Verbund site in Zhanjiang (see pages 43 and 44). In North America, among other things, we have been further expanding our production capacities in the isocyanates value chain in 2023 (see page 44). In Europe, the opening of the first colocated battery materials and recycling center at the Schwarzheide site in Germany was a milestone on our way to further expanding our position in this area (see page 44).

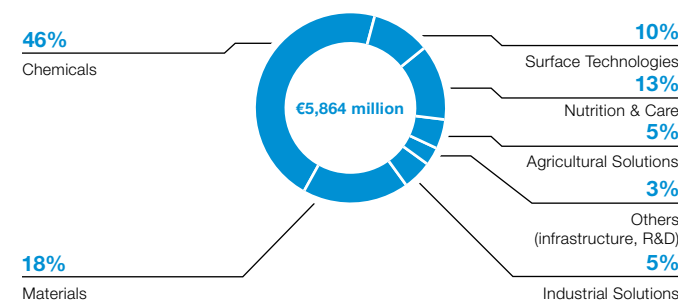
In addition, we want to refine our portfolio through smaller, bolt-on acquisitions that promise above-average profitable growth and help to expand our market position in a targeted manner. A key consideration is that these acquisitions are innovative, offer a technological differentiation, or make new, sustainable business models possible.

Investments in the segments and regions

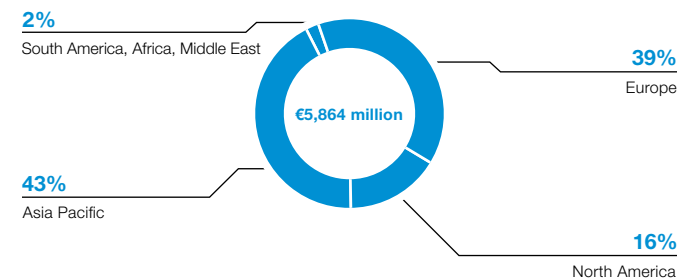
Investments in property, plant and equipment amounted to €5,864 million in 2023 (2022: €4,842 million). Capex accounted for €5,198 million of this amount (2022: €4,148 million).

Our investments in 2023 focused on the Chemicals, Materials, Surface Technologies and Nutrition & Care segments.

Additions to property, plant and equipment^a by segment in 2023



Additions to property, plant and equipment^a by region in 2023



^a Including restoration obligations, IT investments and right-of-use assets arising from leases

¹ Additions to property, plant and equipment excluding acquisitions, restoration obligations, IT investments and right-of-use assets arising from leases

² Major growth projects are the construction of our future Verbund site in Zhanjiang, China, as well as our battery materials activities.

Chemicals

Strategically, our investments concentrate on growth markets such as China to support the growth of our local customers. In 2023, we completed the further expansion project of the Verbund site in Nanjing, China, together with our partner Sinopec, to strengthen the joint production of chemical products in China. This means that we have increased our production capacities for propionic aldehyde, propionic acid and purified ethylene oxide. We also built a new tert-butyl acrylate plant. These new and expanded plants came onstream in 2023.

We are continuing the construction of the new Verbund site in Zhanjiang in the southern Chinese province of Guangdong. The site will be constructed in several phases. The core of the Verbund, including a steam cracker and several downstream plants for the production of petrochemicals and intermediates, among other products, is currently being built. As part of the Verbund, these plants should be operational from late 2025 onward.

We are expanding the 2-ethylhexanoic acid plant in Kuantan, Malaysia, with our partner PETRONAS Chemicals Group Berhad. Startup is planned for 2024.

In 2023, we successfully completed the expansion of our production complex for ethylene oxide and derivatives, for example for the production of alkoxylates, at our Verbund site in Antwerp, Belgium. A world-scale alkylethanolamines plant is scheduled for startup there in 2024.

Overview of material investments

Segment	Location	Project	Startup
Chemicals	Antwerp, Belgium	Capacity expansion at ethylene oxide plant	2023
		Construction of a new world-scale alkylethanolamines plant	2024
	Kuantan, Malaysia	Capacity expansion at 2-ethylhexanoic acid plant ^a	2024
	Ludwigshafen, Germany	Modernization of chloroformates and acid chlorides plant	2025
	Nanjing, China	Capacity expansion at plants for propionic aldehyde, propionic acid, purified ethylene oxide, ethanolamines and ethyleneamines, and construction of a new tert-butyl acrylate plant ^b	2023
Materials	Zhanjiang, China ^c	Construction of a new steam cracker and plants for ethylene oxide, syngas, monoethylene glycol, polyethylene, oxo-C4 alcohols, acrylic monomers and neopentyl glycol	2025
	Chalampé, France	Construction of a world-scale production plant for hexamethylenediamine (HMD)	2024
	Geismar, Louisiana	Capacity expansion at MDI plants	2025
Industrial Solutions	Zhanjiang, China	Construction of a new thermoplastic polyurethane plant	2023
	Huizhou, China	Capacity expansion at acrylics dispersions plant	2024
	Huizhou and Zhenjiang, China	Modification at two dispersions plants for anode binder production	2023
	Jiaying, China	Capacity expansion at sulfuric acid plant	2023
	Lampertheim, Germany and Pontecchio Marconi, Italy	Capacity expansion for hindered amine light stabilizers (HALS)	2024
	Merak, Indonesia	Capacity expansion at acrylics and styrene-butadiene dispersions plants	2023
Surface Technologies	Harjavalta, Finland	Construction of a precursor plant for cathode active materials	– ^d
	Münster, Germany	Construction of a production plant for more sustainable OEM coatings	2025
	Schwarzheide, Germany	Construction of a cathode active materials plant	2023
		Construction of a battery recycling prototype plant	2024
		Construction of a battery recycling plant for production of black mass	2024
Nutrition & Care	Würzburg, Germany	Capacity expansion for OEM coatings	2025
	Antwerp, Belgium	Capacity expansion for alkoxylates	2023
	Düsseldorf, Germany	Gradual upgrade of production plants in accordance with the Good Manufacturing Practice Standard issued by the European Federation for Cosmetic Ingredients (EFCI)	2023
	Jinshan, China	New production line for UV filters	2023
	Ludwigshafen, Germany	Capacity expansion at production plant for vitamin A	2023
		Construction of a production plant for menthol and linalool	2026
Agricultural Solutions	Zhanjiang, China	Construction of a production plant for citral	2026
	Beaumont, Texas, and Hannibal, Missouri	Modernization of site infrastructure	2027
	Europe ^e	Traceability of crop protection products based on digital identification	2024
	Ludwigshafen, Germany	Construction of a fermentation facility to produce sustainable crop protection products	2025
	Schwarzheide, Germany	Reduction of organic waste streams	2024

^a Operated by a fully consolidated joint venture with PETRONAS Chemicals Group Berhad

^b Operated by a joint venture with Sinopec; startup of the plant expansions for ethanolamines and ethyleneamines at the beginning of 2024.

^c The Verbund site will be built and commissioned in several phases.

^d The required approval from the relevant authorities has been granted. Startup of the plant is scheduled following the legally binding conclusion of the opposition proceedings.

^e This project will be implemented in Genay and Graveline, France, in Ludwigshafen, Germany, and in Tarragona, Spain.

Materials

In the Materials segment, the expansion of the methylene diphenyl diisocyanate (MDI) plant in Geismar, Louisiana, is continuing as planned with the third and final expansion phase. It will increase production capacity to approximately 600,000 metric tons per year to support the growth of BASF's North American MDI customers. Including the first and second phases, the investment volume totals around \$1 billion.

We started up the engineering plastics production plant at our Verbund site in Zhanjiang, China, in August 2022. Building on this, the thermoplastic polyurethane (TPU) plant kicked off its operations in September 2023. This plant is BASF's largest TPU production line globally. It will enable us to better meet the growing market demand in Asia Pacific – particularly in the areas of electromobility and new energy.

In Europe, BASF is investing in a new world-scale production plant for hexamethylenediamine (HMD) at the Chalampé site in France. The new plant, which is scheduled to start operations in 2024, will increase BASF's annual HMD production capacity to 260,000 metric tons.

Industrial Solutions

BASF is investing in production capacity for hindered amine light stabilizers (HALS) at its sites in Lampertheim, Germany, and Pontecchio Marconi, Italy. As part of a multistep investment plan, BASF aims to serve the growing demand for light stabilizers used in durable plastics applications and increase supply security for customers worldwide.

In addition, we have invested in the production of water-based anode binders in two existing dispersion plants in Huizhou and Zhenjiang, China. Stable supply of two new innovative binder

products, Licity® and Basonal® Power, came onstream in mid-2023. The investment was due to growing demand in the lithium-ion battery market.

To ensure the supply of high-quality dispersions solutions for the South Asian market, we are expanding our dispersions capacities in Huizhou, China, with an additional production line. It will startup in 2024.

Surface Technologies

We aim to expand our position as a leading and innovative provider of battery materials and recycling solutions and expect to benefit from the strong growth in this market segment. A global, customer-focused production network for battery materials is crucial here. In June 2023, we opened Europe's first colocated battery materials and recycling center at the Schwarzheide site in Germany. The inauguration of the modern production plant for high-performance cathode active materials,¹ the battery recycling prototype plant¹ (startup: beginning of 2024) and the battery recycling plant for the production of black mass from lithium-ion batteries currently under construction (planned startup: 2024) represent important steps toward closing the loop for the European battery value chain. End-of-life batteries and waste from battery production will be mechanically processed in the new plant to produce black mass. The prototype plant will allow for the development of operating procedures and optimization of technology to deliver superior returns of lithium, nickel, cobalt and manganese from end-of-life lithium-ion batteries and unused process materials. The construction of our production facility in Harjavalta, Finland, was completed in 2023, which will supply precursors for cathode active materials.² With these investments, BASF is the first cathode active materials supplier with local production capacities in all of what are currently the main markets: China, Japan, North America and Europe.

Nutrition & Care

In 2023, BASF started up the new world-scale vitamin A formulation plant in Ludwigshafen, Germany. The plant's startup followed the expansion of the vitamin A acetate plant in 2021 in order to meet the expected growing market demand for high-quality vitamin A.

In Antwerp, Belgium, BASF expanded production capacities for nonionic surfactants for the home care industry as well as for industrial and institutional cleaning applications by significantly extending the industry-leading alkoxyates portfolio at its Verbund site. This investment expands upstream production capacity for ethylene oxide and ethylene oxide derivatives.

BASF has invested in a citral plant as part of its Verbund site in Zhanjiang, China, and menthol and linalool downstream plants at its Verbund site in Ludwigshafen, Germany. These plants are expected to come on stream from 2026 onward. The investment is driven by a growing demand from the global flavor and fragrance market.

¹ Our investment and research activities in Schwarzheide and Ludwigshafen, Germany, receive funding from the German Federal Ministry for Economic Affairs and Climate Action and the Ministry for Economic Affairs, Labor and Energy of the German state of Brandenburg under the IPCEI on Batteries (funding code 16BZF101A/B).

² The investment in Finland is cofinanced by Business Finland, the Finnish government organization for innovation funding and trade, travel and investment promotion. The required approval from the relevant authorities has been granted. Startup of the plant is scheduled following the legally binding conclusion of the opposition proceedings.

Agricultural Solutions

In the Agricultural Solutions segment, we continue to invest in the traceability of crop protection products based on digital identification as well as in the reduction of CO₂ emissions and organic waste streams in our plants, in Europe. Furthermore, in 2023, we started construction of a fermentation facility for biological and biotechnology-based crop protection products in Ludwigshafen, Germany. Startup is scheduled for the second half of 2025. In Beaumont, Texas, and Hannibal, Missouri, we continue to modernize our site infrastructure.

 For more information on our segments, see page 77 onward

Acquisitions

We did not make any major acquisitions in the 2023 business year.

Divestitures

The divestiture of BASF's nickel-based catalysts production site in De Meern, Netherlands, to IQatlyst B.V., a subsidiary of ASC Investment Sarl, Luxembourg, which had been announced in July 2022, was closed on August 31, 2023. BASF had decided to divest the site and the related Fischer-Tropsch and FOCAT¹ portfolio to increase the efficiency of its global chemical catalysts production network. The site was part of BASF's Catalysts division until the completion of the divestiture process. The transaction mainly covered production plants, including the associated infrastructure and inventories, as well as the transfer of the employees working at the site.

 For more information on this divestiture, see Note 3 to the Consolidated Financial Statements from page 240 onward

Agreed transactions

On December 21, 2023, BASF, LetterOne and Harbour Energy plc (Harbour) signed an agreement to combine the businesses of Wintershall Dea and Harbour. The E&P business of Wintershall Dea is to be transferred to Harbour: It comprises production and development assets as well as exploration rights in Norway, Argentina, Germany, Mexico, Algeria, Libya (excluding Wintershall AG), Egypt and Denmark (excluding Ravn), and licenses from Wintershall Dea for carbon storage (CCS). In exchange, at closing, the shareholders of Wintershall Dea will receive total cash consideration of \$2.15 billion (BASF share: \$1.56 billion) and new shares to be issued by Harbour equating to a total shareholding in the enlarged Harbour of 54.5% (BASF share: 39.6%).

Until the completion of the transaction, which is, among other things, subject to antitrust approvals and further official approvals for foreign investments in various countries, among other things, Wintershall Dea and Harbour will continue to operate as independent companies. Subject to these regulatory approvals, closing is targeted for the fourth quarter of 2024.

Wintershall Dea is accounted for as a non-integral shareholding using the equity method. After completion of the transaction, both the shareholding in Wintershall Dea, which will then only include the businesses not transferred to Harbour and the head offices, and the shareholding in Harbour will be accounted for using the equity method in the Consolidated Financial Statements of the BASF Group.

 For more information on this divestiture, see Non-Integral Oil and Gas Business from page 97 onward

Material topics in focus:

Circular Economy and Resource Efficiency GRI 3, 301, 304, 306

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

At BASF we think of circularity in two dimensions: In order to achieve our climate targets, we have to not only further reduce our own carbon footprint, but also that of our products. To do this, we use renewable raw materials and recycled raw material sources. At the same time, we are developing products and technologies to help our customers close loops, create value for society and protect the environment.

BASF's Verbund structure presents numerous opportunities for a circular economy: By intelligently networking our plants, we can use by-products from one plant elsewhere as feedstocks or an energy source, thereby using resources efficiently (see pages 102 and 110). We are also focusing our raw material base even more strongly on nonfossil circular alternatives. We procure these raw materials responsibly in order to minimize negative environmental impacts (for example, biodiversity loss) (see page 121 onward).

Currently, less than 10% of the approximately 350 million metric tons¹ of plastic waste generated worldwide each year is currently recycled, yet the global demand for circular feedstocks is rising.

This page:

At the beginning of 2024, Zara launched a jacket that is made entirely from recycled polyamide, from the fabric and lining to the hook-and-loop fastener and zipper. Thanks to BASF's loopamid® solution, the garment is not only made from 100% recycled textile waste, it is also 100% recyclable.

The plastics in our product portfolio are mainly used in durable and demanding applications, such as automotive engineering and insulation foams. As a responsible player in the value chain, we are working to further improve the sustainable use of plastics throughout the entire life cycle. That's why we are developing and marketing solutions for improved mechanical recycling. Where this is not possible, we are driving forward the chemical recycling of plastics as a complementary technology to expand our supply base: Plastics are broken down into their building blocks, which can then be used in production as recycled feedstocks. To do this, we are developing suitable recycling processes, often with partners (see page 124). In a challenging environment with limited availability of alternative raw materials, we still aim to process 250,000 metric tons of recycled and waste-based raw materials, such as pyrolysis oil from mixed plastic waste or end-of-life tires, in our production plants annually from 2025.

Many of BASF's products and technologies are already helping to close loops at many points along the value chain. Together with our customers and other stakeholders, we want to further accelerate the transformation from linear to circular business models. Our target: By 2030, we want to double our sales of solutions for the circular economy to €17 billion (baseline: 2020). As the sustainable properties of our products have been reassessed since 2023 using the updated TripleS method (see page 48), this target will be adjusted in the course of 2024.



At BASF, embracing the circular economy means not just rethinking materials and production processes, but also our role in the value chain.

Talke Schaffranek
Circular Economy

¹ Bruna Alves, Statista (2023). Lifecycle of plastic waste worldwide in 2019 (infographic). Available at: <https://www.statista.com/statistics/1357641/plastic-waste-lifecycle-worldwide/>

Material topics in focus: Circular Economy and Resource Efficiency

Our BASF solutions for the circular economy include:

– **Products based on renewable or recycled raw materials:**

These include products manufactured in whole or in part from renewable or recycled instead of fossil raw materials. The alternative raw materials are attributed to the end product, partly using what is known as the mass balance approach. This is verified and certified by independent third parties (see box on page 124). We use this approach for example for selected ingredients for the automotive, cosmetics, detergent, cleaner and food industries (see page 122). Other examples are products to which pyrolysis oil from the chemical recycling of plastic waste can be attributed via the mass balance approach (Cycled[®] products, see page 125), or products that contain mechanically recycled raw materials (Mycled[®]).

– **Products that close material cycles (“close the loop”):**

These include products that enable and improve the recyclability of valuable resources. Our first focus area here is the value chain for plastics. For example, multilayer packaging produced with our water-based Epotal[®] adhesives can be easily separated into its individual recyclable materials during recycling, which can then be reused. We have expanded our ecovio[®] plastic portfolio and now also offer home-compostable food packaging. The second focus is 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 (see page 125).

– **Products that increase the resource efficiency or lifespan of materials (“extend the loop”):**

These include products that reduce resource consumption and environmental impact along the value chain. One example is Oxsilan[®], an innovative thin-film technology for protecting metals from corrosion, for example, before painting. The process not only enables higher productivity with lower material use, but also offers a favorable safety, health and environmental profile compared with conventional phosphating processes. This category also includes products that extend service life and/or reduce maintenance intervals. Tinuvin[®] light stabilizers are one example of this. They extend the lifespan of products such as agricultural films by providing reliable protection against UV radiation, heat and agrochemicals.

One of the steps we have taken to meet our targets and accelerate the transformation is establishing a company-wide Circular Economy Program. As part of this program, BASF teams are currently developing new approaches within three main action areas and over 50 initiatives: alternative raw materials pathways, innovative material cycles and new business models for the circular economy – which also include digital and service-based concepts. We also cooperate with partners along the value chain and are involved in numerous networks, such as the Ellen MacArthur Foundation, the World Business Council for Sustainable Development, the Global Battery Alliance and the Alliance to End Plastic Waste. In doing so, we want to better understand needs, trends and growth opportunities and contribute to the development of standards.]

For more information on the circular economy, see basf.com/circular-economy

For more information on plastics, see plasticsjourney.basf.com

Case study



From the clothing bin to the runway.:

Every year, almost 100 million metric tons of textile waste is produced worldwide, 87% of which is incinerated or disposed of in landfills. At the beginning of 2024, BASF brought an innovative and sustainable solution to the market to boost circularity in the textile industry: loopamid[®]. Using a new chemical recycling process, textile waste made of polyamide 6 (nylon 6) are first converted into monomers in a process called depolymerization and then purified. The resulting monomers are then converted back into pure polyamide 6 (PA6) through polymerization. This recycled PA6, loopamid[®], serves as the raw material for completely new clothing in a circular production model.

BASF is thus offering a solution to close the loop for polyamide 6 in clothing exclusively with textile waste, which can be reused as a valuable feedstock, thereby reducing the consumption of fossil raw materials, for example. loopamid[®] ensures that textiles remain in their own cycle and garments containing PA6 can be recycled without restrictions. We want to inspire the industry to focus on sustainable textile production and introduce new business models that close loops in textile manufacturing. To this end, we work closely with our partners along the value chain.

Our Sustainability Concept

GRI 2, 3, 203, 304, 413, 415, 416

We bring our corporate purpose – We create chemistry for a sustainable future – to life by systematically integrating sustainability into our strategy, our business, and our assessment, steering and compensation systems. We want to secure our long-term success with products, solutions and technologies that create value added for our customers, the environment and society.

At a glance

- Sustainability aspects integrated into corporate steering
- New targets for climate protection (Scope 3.1) and portfolio steering
- Human rights aspects embedded in decision-making processes

Our strategic approach

Sustainability is integrated into our decision-making processes. Our opportunities and risk management systematically records effects, opportunities and risks arising from our business activities for sustainability topics and how these impact our businesses in a positive or negative way. Decisions regarding investments, acquisitions and divestitures are made while taking comprehensive assessments of sustainability impacts into account. The entire Board of Executive Directors is responsible for sustainability topics, which should be driven forward by all employees. Therefore, BASF's senior executives' long-term variable compensation is also based on the achievement of our targets for reducing CO₂ emissions.

We pursue a holistic sustainability approach that covers the entire value chain – from our suppliers and our own activities to our customers – and contributes to environmental, social and governance key sustainability topics (ESG, see page 100 onward). We have formulated commitments for our conduct and underpinned

these with corresponding targets and measures (see page 41). Based on our corporate strategy, we steer the global sustainability target for climate protection for 2030 via the most important key performance indicator (KPI) absolute CO₂ emissions¹ (see page 40). To this end, we have strengthened the necessary steering mechanisms and control systems at Group level, for example with internal reviews. Our transition plan to reduce greenhouse gas emissions includes the use of renewable energy, measures to avoid CO₂ emissions and circular economy solutions (see page 102). In addition to our target to achieve net-zero emissions by 2050,² we are pursuing further targets for a more sustainable portfolio, for responsible procurement, resource-efficient and safe production, engaged employees and diversity.

Measuring sustainable value added

We are aware that our business activities can have both positive and negative impacts on the environment and society. We aim to increase our positive contributions and minimize the negative impacts of our business activities. To achieve this, we need to measure how our actions and our products affect the environment and society.

We have many years of experience in this area from evaluating our products and processes using methods such as the SEEBalance® Socio-Eco-Efficiency Analysis, Eco-Efficiency Analyses, our TripleS (Sustainable Solution Steering) methodology, BASF's corporate

carbon footprint and the calculation of Product Carbon Footprints (PCF).

We want to offer our customers innovative products and solutions that support their sustainability goals. 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 considered in the implementation of research projects and in innovation processes.

A significant steering tool for the product portfolio, based on the sustainability performance of our products, is TripleS. In 2022, we updated this method in order to further steer our product portfolio to transformation topics such as climate change and energy, resource efficiency and circular economy. With this update we have integrated the TripleS evaluation even more deeply into the assessment of our R&D development processes, also considering the requirements formulated within the Safe and Sustainable by Design framework by the E.U. Commission. Within the scope of the further development of our method, in 2023 we began to reassess the products in the relevant portfolio³ with regard to their applications and regional aspects. As a result, we categorize our product portfolio into five segments, taking sustainability-related aspects into account: **Pioneer, Contributor, Standard, Monitored** and **Challenged** (see graphic). The reassessment will be completed in 2024. We will take regulatory changes into account if they have a material impact on our portfolio and therefore also on our segmentation. The allocations by segment and sales are therefore provisional.

¹ Target includes Scope 1 and Scope 2 emissions (excluding the sale of energy to third parties) as well as Scope 3.1 emissions. Greenhouse gases according to the Greenhouse Gas Protocol are converted into CO₂ equivalents (CO₂e).

² Target includes Scope 1 and Scope 2 emissions (excluding the sale of energy to third parties) as well as Scope 3.1 emissions, excluding greenhouse gas emissions from BASF trading business. Greenhouse gases according to the Greenhouse Gas Protocol are converted into CO₂ equivalents (CO₂e).

³ The definition of the relevant portfolio and further information can be found in the TripleS manual at basf.com/en/sustainable-solution-steering

The new KPI sales of **Sustainable-Future Solutions** summarizes the total sales of Pioneer and Contributor products. Products allocated to these segments make a positive sustainability contribution in the value chain. For example, polyurethane catalysts, which reduce energy consumption and material use, and high-performance insulation materials, which save energy for end users. In line with our corporate strategy, we have set ourselves the target of making sustainability an even greater part of our innovative power. By 2030, more than 50% of BASF's sales relevant to TripleS¹ are to be attributable to Sustainable-Future Solutions (2023: 41.4%). With TripleS, we are steering our product portfolio and our research and development units toward sustainable solutions. According to our updated methodology, in 2023, around €1 billion of our annual expenditure on research and development contributed to potential Sustainable-Future Solutions.

If, during the reassessment of our portfolio, we identify products with sustainability concerns, we classify them either as "Monitored," or in case of significant concerns, as "Challenged," as we did in the past. 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 replacing the product with an alternative. To systematically align our portfolio with contributions to sustainability, we are generally phasing out all Challenged products within five years of their initial classification.

Of BASF's €68.9 billion in sales in 2023, €55.5 billion is relevant for the TripleS evaluation. We have analyzed €52.8 billion of this as part of TripleS by the end of 2023.² The relevant portfolio comprises BASF Group's sales from sales products to third parties in the business year concerned. This excludes business that is not product-related, such as licenses or services.

TripleS (Sustainable Solution Steering)^a

TripleS segments	Product performance	Sales (billion €)		
Pioneer	Products with adequate profitability and a positive contribution to sustainability above the market standard	9.77	3.58	13.35 (24.1%)
Contributor	Products with adequate profitability and a positive contribution to sustainability on market standard with regard to the topics of climate change and energy, resource efficiency and circular economy	8.76	0.83	9.59 (17.3%)
Standard	Products performing on market standard without a dedicated contribution to the topics of climate change and energy, resource efficiency and circular economy	18.08	6.14	24.23 (43.6%)
Monitored	Products with specific identified regulatory or customer concerns arising mid-term (2–5 years) or posing a regional reputational risk for BASF	3.55	0.87	4.42 (8.0%)
Challenged	Products with identified strong regulatory or customer concerns arising short-term (≤2 years), with Substances of Very High Concern in applications with an intended consumer use, violating BASF's Code of Conduct or posing a strong global reputational risk	0.42	0.81	1.23 (2.2%)

■ Sales share validated segmentation ■ Sales share provisional segmentation

^a Sales shares based on the analysis of the relevant portfolio carried out by the end of 2023.¹ The provisional segmentation has not been audited by KPMG. The allocation to the segments is provisional, as the reassessment of our portfolios has not yet been completed.

Our key sustainability topics

As a cofounder of the U.N. Global Compact, we contribute to the implementation of the United Nations' (U.N.) Agenda 2030. Our products, solutions and technologies help to achieve the U.N. Sustainable Development Goals (SDGs) – especially SDG 2 (Zero hunger), SDG 5 (Gender equality), SDG 6 (Clean water and sanitation), SDG 7 (Affordable and clean energy), SDG 8 (Decent work and economic growth), SDG 12 (Responsible consumption and production) and SDG 13 (Climate action). To prioritize the SDGs relevant to BASF, in 2023, internal experts once again assessed the impacts and positive contributions of our products, our corporate targets and strategic action areas.

In 2023, we updated our **materiality analysis** from 2022. The results do not only set the framework for reporting, but also help us to better understand the complex and sometimes diverging requirements and expectations that our stakeholders have of us and

to define strategically relevant topics for our long-term business success. As part of the update in 2023, we reviewed whether new topics had been identified or the topics from the previous year had significantly changed in priority. We used a big data tool to review the relevance of sustainability topics for various stakeholder groups. We also included the expertise of external stakeholders, with whom we are in constant contact, and of employees in this review.

A sustainability aspect is considered material in the sense of double materiality if it has been classified as having both impact materiality and financial materiality. To assess impact materiality, both actual and potential positive and negative impacts of our company's activities were considered along the value chain. To this end, the scale, scope and likelihood of occurrence of these impacts were assessed. For the analysis of financial materiality the topics were classified based on their potential financial impacts on BASF. Specifically, we analyzed how each sustainability aspect affects us geographically, for example, whether a local business unit or an

¹ The definition of the relevant portfolio and further information can be found in the TripleS manual at basf.com/en/sustainable-solution-steering

² Sum of validated and provisional segmentation

entire region is affected, whether it impacts our production, our employees, the achievement of targets we have set for the BASF Group, or our reputation.

Identified key sustainability topics

Environmental

- Biodiversity
- Circularity and resource efficiency
- Climate change adaptation
- Climate change mitigation
- Process safety¹
- Waste
- Water and wastewater

Social

- Diversity, inclusion and equal work
- Human rights and labor rights
- Occupational health and safety
- Product stewardship

Governance

- Business ethics

The topics from 2022 were confirmed, with two adjustments: “Occupational health and safety” was expanded to include “process safety.” “Plastic waste” was integrated into the overarching topic of “circularity and resource efficiency.” Based on this update, 11 topics were identified as material (see list) and confirmed by the BASF Sustainability Reporting and Controlling Committee. At the beginning of 2024, we will review the methodology of our materiality analysis again to ensure that it meets the requirements of the European Sustainability Reporting Standards, for example, in terms of double materiality.

[For more information on our materiality analysis, see basf.com/materiality](https://www.basf.com/materiality)

Our organizational and management structures

Together with decentrally organized specialists, the units Corporate Strategy & Sustainability and Corporate Finance are responsible for integrating sustainability into decision-making processes and for steering and reporting on sustainability topics. The Corporate Strategy & Sustainability unit is also responsible for the global steering of climate-related matters. The Net Zero Accelerator unit plays a key role in achieving our climate protection targets by accelerating and implementing projects related to low-emission production technologies, circular economy and renewable energy. The Corporate Finance unit reports to the Chief Financial Officer, while the other two units report to the Chairman of the Board of Executive Directors.

Sustainability topics are discussed and managed by the Board of Executive Directors. When making its decisions, the Board of Executive Directors considers the results and recommendations from sustainability evaluations of business processes. It makes decisions with strategic relevance for the Group and monitors the implementation of strategic plans and target achievement. The Supervisory Board is regularly briefed on the development of individual sustainability topics by the Board of Executive Directors.

The Chief Human Rights Officer is responsible for further embedding human rights aspects in decision-making processes. He reports directly to the Chairman of the Board of Executive Directors (see page 154).

We systematically evaluate sustainability criteria, including the effects of climate change, as an integral part of decisions on investments, acquisitions and divestitures in property, plant and equipment and financial assets. In this way, we not only assess economic dimensions, but also the potential impacts on areas such as the environment, human rights or the local community. We evaluate both the potential impacts of our activities here as well as how we are affected.

If we identify potential negative impacts, for example, in planned investments, these are presented transparently in the internal decision-making process together with possible mitigation measures.

In our Sustainable Finance Roundtable, experts from departments such as Finance, Corporate Strategy, Investor Relations and Communications discuss new legal or capital market-driven requirements. The interdisciplinary group analyzes the steadily growing requirements, assesses the impacts on BASF and drives forward the necessary change processes as well as the concrete implementation of measures.

The Sustainability Reporting and Controlling Committee is the central decision-making body for questions relating to internal and external reporting and the controlling of sustainability topics. This committee of managers from the relevant Corporate Center and operating units facilitates rapid decisions to ensure that external and internal requirements for sustainability-related information and data are met immediately and in the best possible way.

[For more information on our financial and sustainability targets, see pages 40 and 41](#)

[For more information on our risk management, see pages 173 to 183](#)

[For more information on compensation structures, see the compensation report at basf.com/compensationreport](https://www.basf.com/compensationreport)

¹ The topic is presented separately here due to its allocation to the “Environmental” category, but it was considered in the materiality analysis as “Process safety, occupational health and safety.”


Our stakeholder management

BASF's business success depends on the societal acceptance of our business activities (license to operate). Parts of our business activities, such as the use of certain new technologies or our environmental impacts, are often viewed by stakeholders with a critical eye. We take questions from our stakeholders seriously, initiate dialogs and participate in discussions (see page 140 onward). Our stakeholders include customers, employees, investors, suppliers, the communities surrounding our sites, and representatives from industry, academia, politics and society. We are in ongoing exchange through a variety of formats of our strategic stakeholder engagement.

We are involved in networks, lobbying groups and associations in order to jointly promote sustainability topics. In our own independent exchange formats, we discuss our contribution to a socially just climate transformation (just transition) with representatives from business, science, politics and civil society. For example, we discussed solutions and challenges on the path to climate neutrality with our stakeholders at the BASF Sustainability Lab in 2023. In-depth, context-related discussions take place in topic-specific committees such as the Human Rights Advisory Council and the Nature Advisory Council.

We promote continuous exchange between local residents and our site management with community advisory panels. We also involve key stakeholders in the decision-making process about future investments at an early stage in order to work together on viable solutions. Our political advocacy is conducted in accordance with transparent guidelines and our publicly stated positions.

 For more information on the dialog with our stakeholder groups, see page 140

 For more information on our guidelines for responsible lobbying, see basf.com/responsible-lobbying

For more information on the Industry Associations Review, see basf.com/en/corporategovernance

For more information on the BASF Sustainability Lab, see basf.com/en/sustainability-lab

For more information on our stakeholder engagement, see basf.com/en/stakeholder-engagement

Our societal engagement approach

Our societal engagement is an important part of our sustainability management and our corporate responsibility. Communities at our sites and disadvantaged groups around the world are particularly important to us. Our activities are bundled in three action areas globally across all levels of the BASF Group: We want to improve people's quality of life by preventing and combating disease (health), promoting educational equality, employability and economic participation (skills), and conserving natural resources (resources). Our aim is to make a positive contribution to society by leveraging our expertise and resources. In accordance with our societal engagement policy, our actions are in line with our compliance requirements, BASF's strategy and our sustainability commitments.

 For more information on our societal engagement, see page 141

How We Create Value

GRI 413

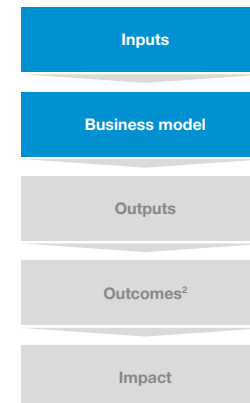
The following overview¹ shows how we create value for our stakeholders. It is modeled on the framework of the former International Integrated Reporting Council (IIRC).



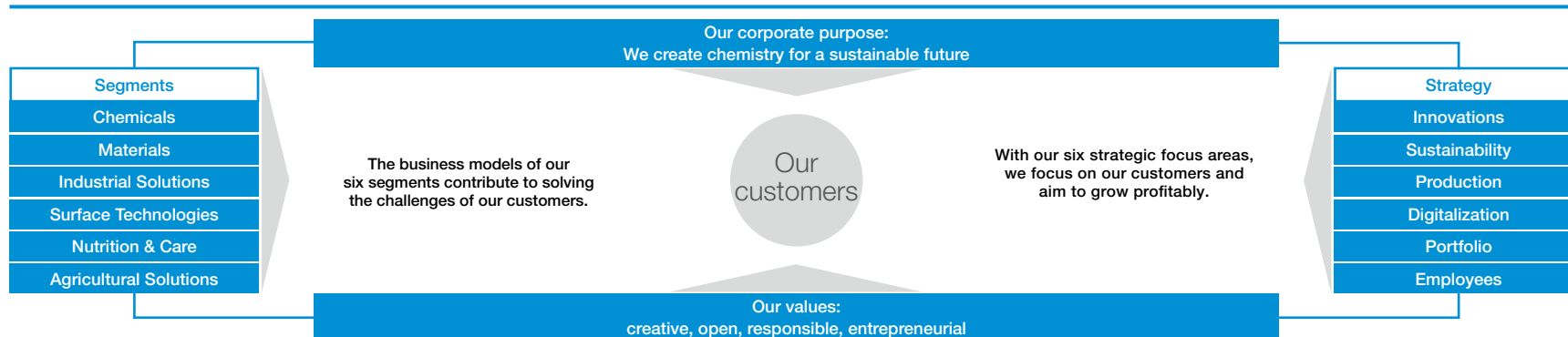
Discover the interactive How We Create Value graphic in the BASF Online Report at basf.com/how-we-create-value

Inputs

Financial	Innovations	Production	Environment	Employees	Partnerships
Our aim is to ensure solvency at all times, limit financial risks and optimize the cost of capital.	We develop innovative solutions for and with our customers to expand our leading position.	Safety, quality and reliability are key to excellence in our production and plant operations.	We use natural resources to manufacture products and solutions with high value added for our customers.	Everything we do is based on the expertise, knowledge, motivation and commitment of our employees.	Trust-based relationships are crucial to our license to operate and our reputation.
47.3% Equity ratio	~10,000 R&D employees	€5.2 billion Capex	~1 MMT Renewable raw materials	111,991 Employees around the world	> 70,000 Suppliers
> 900,000 Shareholders	€2.1 billion R&D expenses	20% Electricity from renewable sources	1,518 million m ³ Total water abstraction	€11.0 billion Personnel expenses	~78,000 Customers



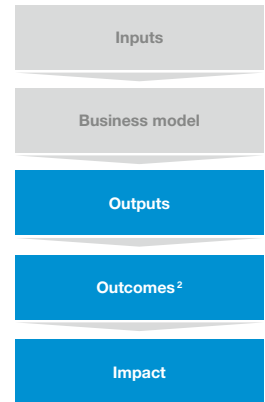
Business model



¹ The content of the graphic has been audited within the scope of the relevant sections of the Combined Management's Report.

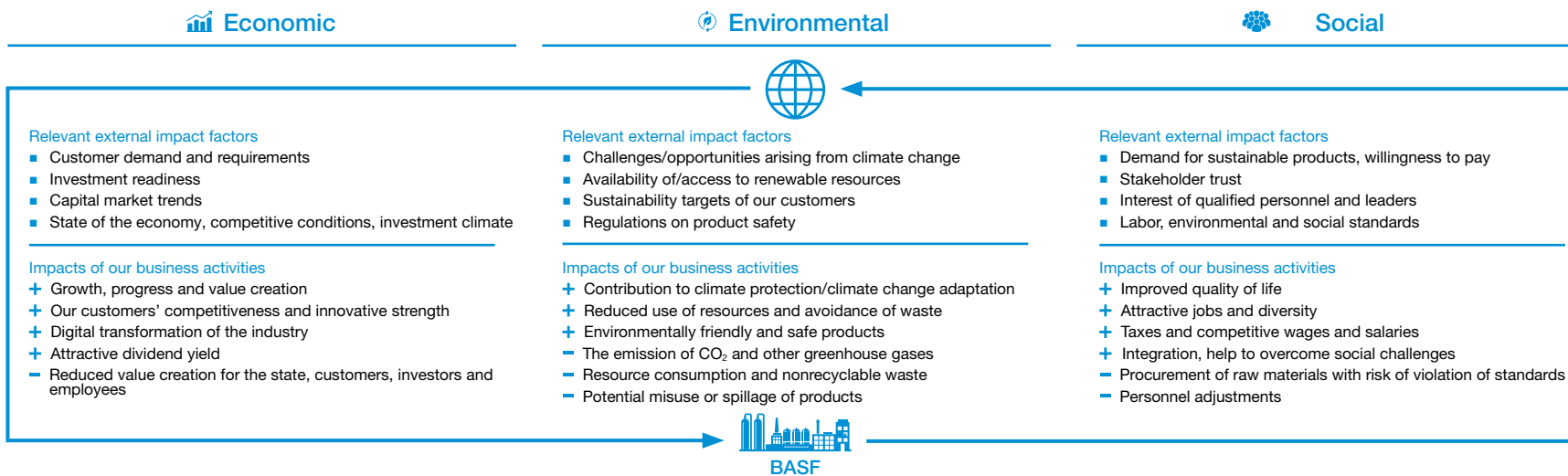
Outputs

Financial	Innovations	Production	Environment	Employees	Partnerships
€3.8 billion EBIT before special items	~1,000 New patents worldwide	~45,000 Sales products	> 1,400 Mass balance products based on alternative raw materials	79% Engagement index according to 2023 employee survey	668 Suppliers screened by BASF as part of Together for Sustainability
€3.0 billion Proposed dividend payment to shareholders ¹	>€10 billion Sales of products that have been on the market for up to five years	5.7 MMT CO ₂ emissions avoided through the Verbund and combined heat and power generation	79% Water demand recirculated	28.4% Women in leadership positions	~50 Strategic customer networks



Outcomes²

Relevant external impact factors for our company's success as well as positive and negative impacts of our business activities:



How we maximize positive impacts / minimize negative impacts:

<ul style="list-style-type: none"> Corporate strategy Portfolio management Cost management and cost of capital optimization Differentiated Steering (from 2024 onward) 	<ul style="list-style-type: none"> Programs for carbon management and the circular economy Water and energy management Measures to protect biodiversity Responsible Care Management 	<ul style="list-style-type: none"> Supplier management Sustainability projects in the supply chains Compliance Program and Code of Conduct Employee training programs
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Impact

We achieve long-term business success by creating value for our customers, our shareholders, our company, the environment and society (see [basf.com/en/value-to-society](https://www.basf.com/en/value-to-society)).

¹ Based on the dividend proposed by the Board of Executive Directors and the number of outstanding shares as of December 31, 2023 (892,522,164)

² The outcomes category shows examples of impacts on our business and impacts that our activities may have as well as the measures we take.

Innovation

Innovations based on chemistry play a pivotal role in overcoming the greatest challenges of our time. Our activities are aimed at developing new products, reducing the carbon footprint of our existing products, entering new markets and further increasing our productivity. We are intensively working together with our customers on innovative products and processes for a sustainable future.

At a glance

€2.1 billion

Research and development expenses

~1,000

New patents filed

- Innovation focus on developing sustainable products and processes for our customers
- Close cooperation with universities, research institutes and companies
- Close cooperation between research and business units

Innovation has always been the key to BASF's success. The knowledge and skills of our highly qualified employees is our most valuable resource and the source of our innovative strength. In 2023, approximately 10,000 employees worldwide were working in research and development (R&D).

Our **research and development expenses** amounted to €2,130 million in 2023 (2022: €2,298 million). R&D activities in our operating divisions, which are mainly application and customer-related, accounted for 83% of this figure. Cross-divisional and long-term topics were responsible for 17% of these expenses.

Our **innovation focus** is on developing new products, solutions and product improvements that offer our customers competitive and sustainability advantages. By helping them reduce their carbon footprint, use resources more efficiently and manufacture products in a more environmentally friendly way and recycle them, we also

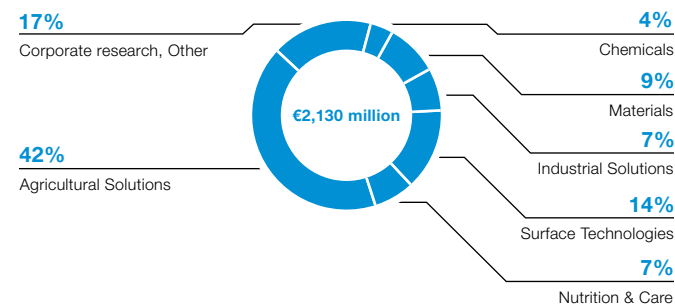
ensure our long-term competitiveness and at the same time, play a role in decoupling growth from the consumption of limited resources.

In 2023, we generated sales of around €10 billion with products launched on the market in the past five years that stemmed from research and development activities. In the long term, we aim to further increase sales and earnings with new and improved products – especially with products that make a positive sustainability contribution in the value chain (see page 48).

Our research and development units explicitly address the industry-specific needs of our customers. Customer-focused activities are directly integrated into the operating divisions. Research activities that are relevant to several operating divisions are bundled in the cross-functional global division Group Research. It supports the R&D activities of our divisions and drives forward cross-divisional projects on topics relevant to the entire Group, such as avoiding CO₂ emissions in chemical processes and products, energy efficiency and recycling technologies. The unit is globally positioned with research centers in Europe, North America and Asia Pacific. Together with the research and development units in our operating divisions, Group Research forms the core of our global Know-How Verbund.

Additionally, we use corporate funding to finance research activities that are of broad relevance to the BASF Group and go beyond the industry-specific focus of the individual operating divisions, such as digital tools, polymer technologies, catalyst processes and biotechnological methods.

Research and development expenses by segment 2023



Furthermore, we promote creative research approaches and drive forward the development of new business areas. For example, we are developing innovative coating technologies and materials that make innovative surfaces and functions possible. Functional films can be used to reduce the frictional resistance of surfaces or improve UV protection and weather resistance.

As part of our Carbon Management R&D Program, we are focusing in particular on projects at the energy-intensive starting point of the value chain. This will enable us to offer our customers even more products with a lower carbon footprint in the future.

Employees in research and development

~10,000

Our **global research and development presence** – and its effectiveness – is vital to our long-term success. This enables us to respond to the needs and requirements of the regional markets in a differentiated way, establish new customer relationships and leverage growth potential. Scientific collaborations give us access to talent, strengthen our Research and Development Verbund and make BASF an even more attractive partner and employer.

The largest and most important site in our research network is Ludwigshafen in Germany. We are currently building a new Catalyst Development and Solids Processing Center there to bring process innovations and new chemical catalysts to market faster. Startup is planned for 2024.

We are also continuing to advance our R&D activities in Asia. For instance, in mid-2023, we completed the expansion of the BASF Innovation Campus Shanghai in China, which was opened in 2012, with new laboratories for advanced materials and systems as well as for chemical engineering.

The number and quality of our **patents** also demonstrate our innovative power and long-term competitiveness. In 2023, we filed 1,046 new patents worldwide, of which 42.2% were for innovations with a particular focus on sustainability. The Patent Asset Index, a method that compares patent portfolios, once again ranked us among the leading companies in the chemical industry in 2023.

For more information on innovation, see basf.com/innovations

Global network

Our global network of top universities, research institutes and companies forms an important part of our Know-How Verbund. It gives us direct access to external scientific expertise, talented minds from various disciplines as well as new technologies. Our academic research alliances bundle partnerships with several research groups in a region or with a specific research focus.

In the **United States**, we celebrated the 10-year anniversary of our Northeast Research Alliance (NORA) in 2023. In the future, we want to include additional partners from across the whole of North America under a new name: the North America Open Research Alliance. NORA focuses on materials science and biosciences, catalysis research, digitalization and cooperation with startups. We are also a member of the interdisciplinary California Research Alliance (CARA). Teams at the CARA research center are working on new functional materials, formulations, digital methods, catalysis, chemical synthesis, and in engineering sciences and biosciences.

The Joint Research Network on Advanced Materials and Systems (JONAS) is active in **Europe** and focuses on supramolecular chemistry, polymer chemistry and sustainable technologies. We are working on innovative components and materials for electrochemical energy storage with the Karlsruhe Institute of Technology (KIT) at the Battery and Electrochemistry Laboratory (BELLA). At the joint Catalysis Research Laboratory (CaRLa), BASF is researching homogeneous catalysis in cooperation with the University of Heidelberg. BasCat is a joint laboratory operated by the UniCat cluster of excellence and BASF at the Technical University of Berlin, where new heterogeneous catalysis concepts are being explored together with the Fritz Haber Institute of the Max Planck Society. Within the British Alliance for Research and Innovation (BARI), BASF is researching with thematic clusters in chemical engineering (flow chemistry) and digitalization (crystallization, corrosion) together with Imperial College London.

At the Network for Asian Open Research (NAO) in the **Asia Pacific** region, research focuses on polymer and colloid chemistry, catalysis, machine learning and smart manufacturing.

The Academic Research Alliances are complemented by cooperative partnerships with around 280 universities and research institutes as well as collaborations with a large number of companies.

For more information on our collaboration initiatives, see basf.com/innovate-with-us