



BASF Factbook

Information for investors and analysts

Published May 2024

 **BASF**
We create chemistry

Cautionary note regarding forward-looking statements

This publication contains forward-looking statements. These statements are based on current estimates and projections of the Board of Executive Directors and currently available information. Forward-looking statements are not guarantees of the future developments and results outlined therein. These are dependent on a number of factors; they involve various risks and uncertainties; and they are based on assumptions that may not prove to be accurate. Such risk factors include in particular those discussed in Opportunities and Risks on pages 173 to 183 of the BASF Report 2023. BASF does not assume any obligation to update the forward-looking statements contained in this publication above and beyond the legal requirements.

Data

Due to rounding, individual figures may not add up exactly to the totals shown and percentages may not correspond exactly to the figures shown.



Drones and digitalization are increasingly used as part of routine maintenance procedures. Courtney Buell, Engineering Associate, and Philip Reyes, Drone & Robotics Specialist, prepare to inspect a vessel in the carboxy plant at BASF's Verbund site in Geismar, Louisiana. In this way, the need for personnel to enter a confined space is avoided.

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BASF Group

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At a Glance

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 112,000 employees contribute to the BASF Group's success worldwide. Our business comprises the Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions segments.

With companies in 93 countries

we contribute to our customers' success

Broad portfolio

6 segments, 11 operating divisions, 70 strategic business units

Verbund concept

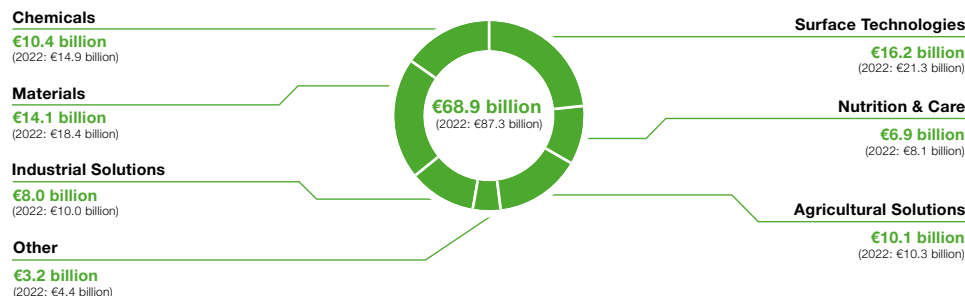
for resource-efficient, carbon-optimized and reliable production

BASF sales by industry 2023

Direct customers

>20%	Chemicals and plastics Transportation (respectively)
10–20%	Agriculture Consumer goods (respectively)
<10%	Construction Electronics Energy and resources Health and nutrition (respectively)

Sales by segment and Other in 2023



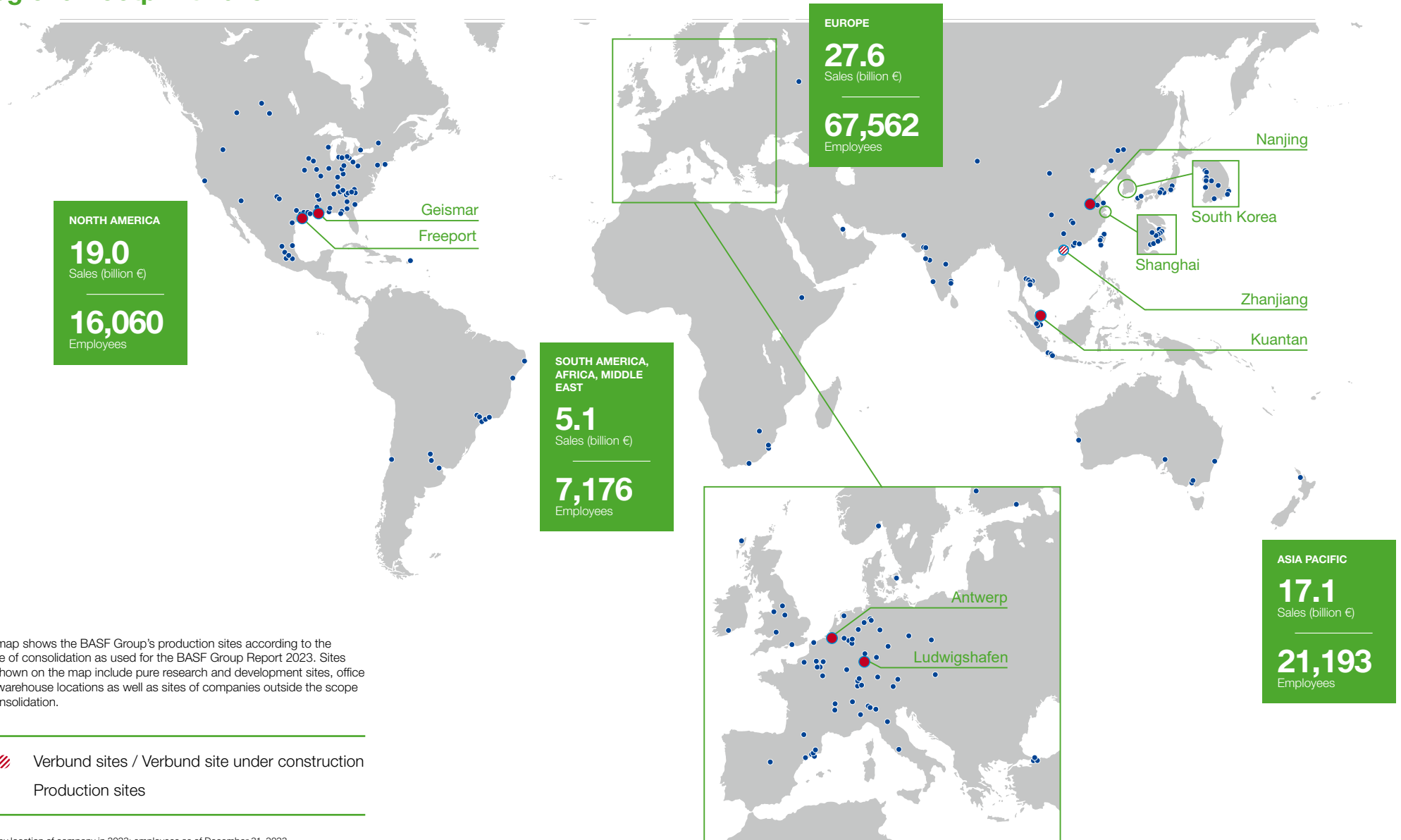
Key figures

Million €

	2019	2020	2021	2022	2023
Sales	59,316	59,149	78,598	87,327	68,902
Income from operations before depreciation, amortization and special items	8,324	7,435	11,348	10,762	7,671
Income from operations before depreciation and amortization (EBITDA)	8,185	6,494	11,355	10,748	7,180
Income from operations (EBIT) before special items	4,643	3,560	7,768	6,878	3,806
Income from operations (EBIT)	4,201	-191	7,677	6,548	2,240
Net income	8,421	-1,060	5,523	-627	225
Earnings per share (EPS)	€ 9.17	-1.15	6.01	-0.70	0.25
Adjusted earnings per share (EPS)	€ 4.00	3.21	6.76	6.96	2.78
Cash flows from operating activities	7,474	5,413	7,245	7,709	8,111
Free cash flow	3,650	2,284	3,713	3,333	2,715
EBITDA margin before special items	% 14.0	12.6	14.4	12.3	11.1
Return on capital employed (ROCE)	% 7.7	1.7	13.7	10.0	4.5
Dividend per share	€ 3.30	3.30	3.40	3.40	3.40
Dividend yield ¹	% 4.90	5.10	5.50	7.33	6.97

¹ Based on year-end share price

Regional footprint 2023



The map shows the BASF Group's production sites according to the scope of consolidation as used for the BASF Group Report 2023. Sites not shown on the map include pure research and development sites, office and warehouse locations as well as sites of companies outside the scope of consolidation.

Management

Board of Executive Directors of BASF SE

Responsibilities as of May 1, 2024



Dr. Markus Kamieth

Chairman of the Board of Executive Directors

53 years old, 25 years at BASF

Responsibilities:

Corporate Development; Corporate Legal, Compliance & Insurance; Senior Project Net Zero Accelerator; Corporate Human Resources; Corporate Communications & Government Relations; Corporate Investor Relations



Dr. Dirk Elvermann

Chief Financial Officer and Chief Digital Officer

52 years old, 21 years at BASF

Responsibilities:

Corporate Finance; Corporate Audit; Corporate Taxes & Duties; Global Business Services; Global Digital Services; Global Procurement; BASF Venture Capital



Michael Heinz

60 years old, 40 years at BASF

Responsibilities:

Care Chemicals; Nutrition & Health; Agricultural Solutions; North America; South America



Anup Kothari

56 years old, 25 years at BASF

Responsibilities:

Dispersions & Resins; Performance Chemicals; Catalysts; Coatings



Dr. Stephan Kothrade

Chief Technology Officer

57 years old, 29 years at BASF

Responsibilities:

Petrochemicals; Intermediates; Performance Materials; Monomers; Group Research; Greater China; South & East Asia, ASEAN & ANZ; Mega Projects Asia



Dr. Katja Scharpwinkel

Industrial Relations Director

54 years old, 13 years at BASF

Responsibilities:

Corporate Environmental Protection, Health, Safety & Quality; Global Engineering Services; European Site & Verbund Management; Europe, Middle East, Africa

Supervisory Board of BASF SE (as of May 1, 2024)

Shareholder representatives

Dr. Kurt Bock

Chairman of the Supervisory Board of BASF SE; Former Chairman of the Board of Executive Directors of BASF SE

Liming Chen

World Economic Forum Greater China Chair

Prof. Dr. Stefan Asenkerschbaumer

Vice Chairman of the Supervisory Board of BASF SE; Chairman of the Supervisory Board of Robert Bosch GmbH and Managing Partner of Robert Bosch Industrietreuhand KG

Alessandra Genco

Chief Financial Officer of Leonardo SpA

Prof. Dr. Thomas Carell

Professor of Organic Chemistry at LMU Munich

Tamara Weinert

President and Chief Executive Officer of the Business Area Americas and member of the Leadership Team of Outokumpu Corporation

Employee representatives

Sinischa Horvat

Vice Chairman of the Supervisory Board of BASF SE; Chairman of the Works Council of BASF SE, Ludwigshafen Site; and Chairman of BASF's Joint Works Council and of the BASF Works Council Europe

Natalie Mühlenfeld

District Manager of the Mining, Chemical and Energy Industries Union (IG BCE) for the Düsseldorf district

Tatjana Diether

Deputy Chairwoman of the Works Council of BASF SE, Ludwigshafen Site, and member of the BASF Works Council Europe

Michael Vassiliadis

Chairman of the Mining, Chemical and Energy Industries Union (IG BCE)

André Matta

Member of the Works Council of BASF SE, Ludwigshafen Site, and member of the BASF Works Council Europe

Peter Zaman

Deputy Secretary of the Works Council of BASF Antwerpen N.V.

For further information, please refer to basf.com/share/supervisory-board

Two-tier management system of BASF SE

Board of Executive Directors

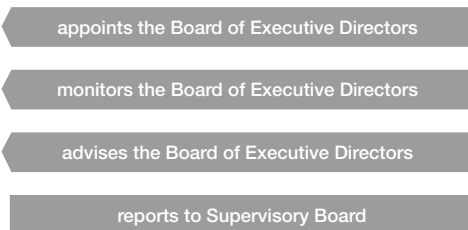


6 members

appointed by the Supervisory Board

Chair

appointed by the Supervisory Board



Supervisory Board



12 members

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

Chair

elected by the Supervisory Board

The Supervisory Board works hand in hand with the Board of Executive Directors to ensure long-term succession planning for the composition of the Board of Executive Directors. BASF aims to fill most Board positions with leaders from within the company. It is the task of the Board of Executive Directors to propose a sufficient number of suitable individuals to the Supervisory Board.

The aim is to enable the Supervisory Board to ensure a reasonable level of diversity with respect to education and professional experience, cultural background, international representation, gender and age when appointing members of the Board of Executive Directors of BASF SE. Irrespective of these individual criteria, a holistic approach will determine a person's suitability for appointment to the Board of Executive Directors of BASF SE.

For more information on the competence profiles, diversity concept and composition goals, see [BASF Report 2023, page 193](#) onward.

BASF Verbund

Our unique Verbund concept is one of BASF's greatest strengths. Its driving principle is to add value through the efficient use of resources. At our Verbund sites, production plants, energy and material flows, logistics, and site infrastructure are all integrated.

BASF currently operates six Verbund sites worldwide: two in Europe, two in North America and two in Asia. Our Verbund site in Ludwigshafen, Germany, is the world's largest chemical complex owned by a single company that was developed as an integrated network. We are building a seventh Verbund site in Zhanjiang, in the Chinese province of Guangdong (see page 24).

The Verbund system creates efficient value chains that extend from basic chemicals all the way to industrial and final consumer products. In this system, chemical processes make use of energy more efficiently, achieve higher product yields and conserve resources. By-products of one process are used as starting materials for other processes. This saves raw materials and energy, avoids emissions, lowers logistics costs and leverages synergies. BASF operates 228 additional production sites worldwide, but the six Verbund sites produce more than 50% of our volumes. This is a testament to the importance and strength of the Verbund concept within BASF.

Strong sustainability performance

Value chains in integrated Verbund structures can be steered efficiently to conserve resources and reduce CO₂ emissions. In 2023, we covered 51% of BASF Group's electricity demand with our own gas and steam turbines in highly efficient combined heat and power plants. Compared with separate generation of steam and electricity, we saved 10.8 million MWh of fossil fuels and avoided 2.2 million metric tons of carbon emissions in 2023.¹ In 2023, internally generated power in the BASF Group had a carbon footprint of around 0.26 metric tons of CO₂ per MWh of electricity and was below the national grid factor at most BASF sites.

¹ Calculation basis: electricity conversion efficiency of conventional power plants: 45%; steam generation efficiency 90%

BASF Verbund sites worldwide



The Verbund system is also key to the carbon-optimized supply of energy at our sites. For example, waste heat from one plant's production process is used as energy in other plants. The Verbund saved us around 17.3 million MWh in 2023, which translates to 3.5 million metric tons less CO₂ released into the atmosphere.¹ With combined power and steam generation as well as our continuously optimized Energy Verbund, we were thus able to avoid a total of 5.7 million metric tons of CO₂ emissions in 2023.

Verbund flexibility and adaptability

Despite its complexity, the Production Verbund can respond flexibly to fluctuating demand and changing framework conditions. BASF also has flexibility in adapting its Verbund structures, as demonstrated by the measures to improve competitiveness of the Ludwigshafen site that were announced in February 2023. As part of these measures, the following plants were shut down by the end of 2023: the TDI complex, one ammonia plant, the melamine plant and the fertilizer facility. Further shutdowns will be implemented gradually until the end of 2026.

Strategy

Corporate Strategy

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 while creating value for society and the environment. This is our goal, which is embedded in our corporate purpose: We create chemistry for a sustainable future.

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.

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 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. 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 (see page 12). Our operating divisions are also continuing to adapt their specific business models and processes – supported by customized process structures, IT systems and governance frameworks.

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.

Our strategic action areas

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.

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 actions 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, to safety and resource efficiency in production, to sustainable solutions for our customers.

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. The Verbund 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.

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. 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 industries as well as agriculture.

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 with 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 (see page 24). At the same time, we are strengthening the basis for our organic growth with investments. The major growth projects for the coming years are our new Verbund site in Zhanjiang, China, and the expansion of our battery materials business.

Employees

Our employees are key to BASF's success. That is why we believe in the importance of 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 our strategic action areas, see [BASF Report 2023, page 30](#) onward.

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 2023, 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 (see page 19).

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.

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.

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.

Value-based management throughout the company

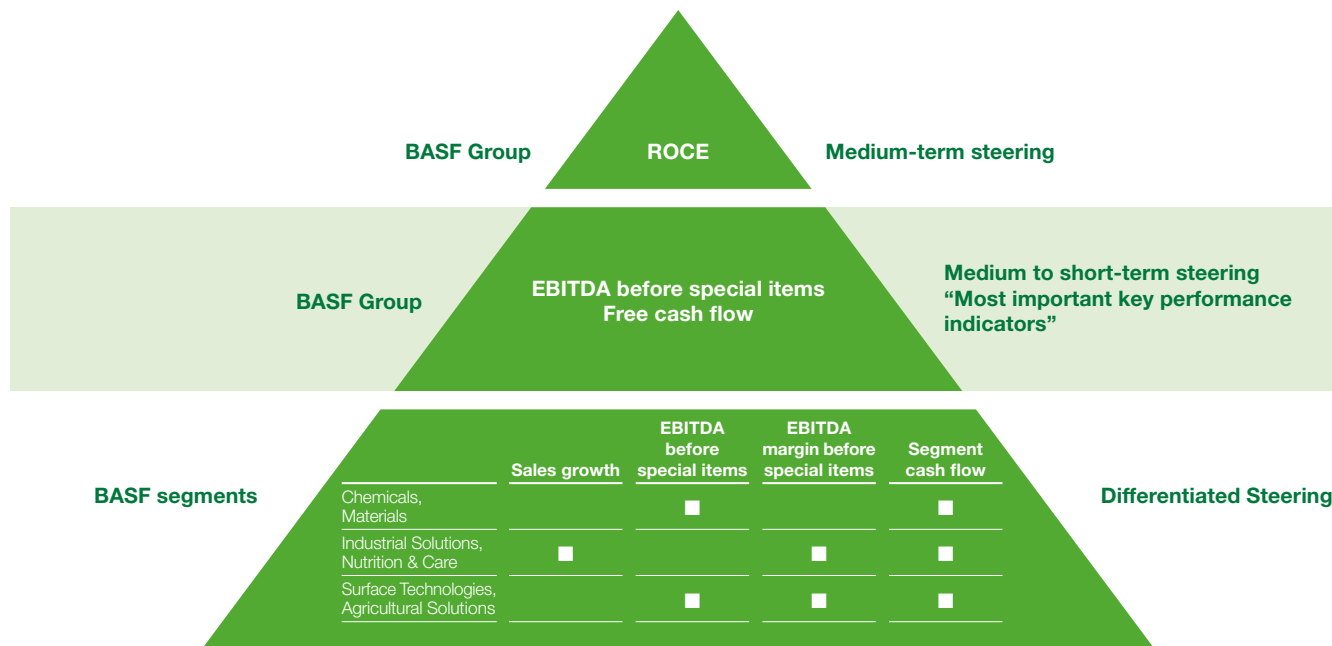
The target agreement process is an important part of our value-based management. It aligns individual employee targets with BASF's targets. The most important financial indicator in the operating business has so far been ROCE. The other units' contribution to value is also assessed according to effectiveness 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.

Key figures in reporting

For the BASF Group, we used EBIT before special items and capital expenditures (capex) until 2023 as key performance indicators that have a direct impact on ROCE: EBIT before special items to steer profitability at Group and segment level; capex to manage capital employed in the BASF Group. Capex comprises 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.

Differentiated financial steering approach of the BASF Group as of 2024



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 capex for 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.

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

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

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 19](#)

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

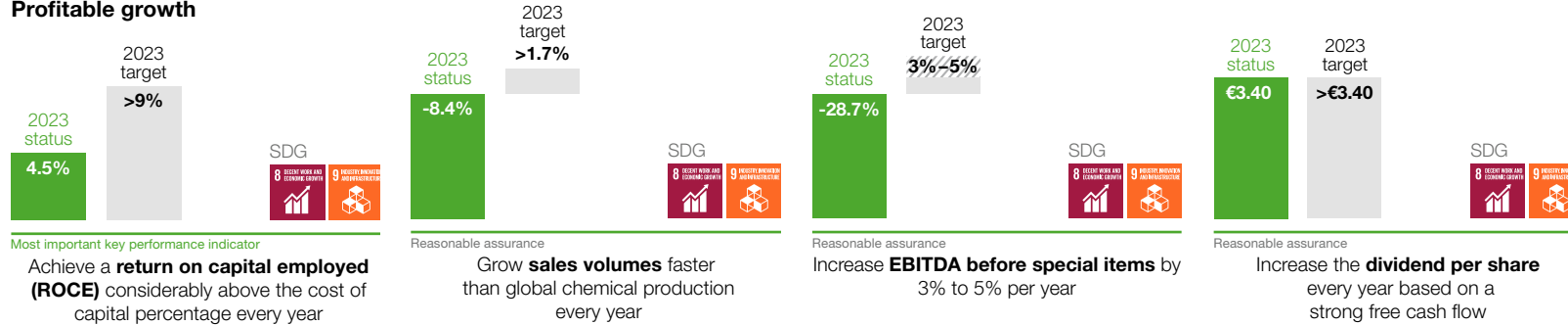
Segment cash flow measures the cash inflow and outflow of a segment and thus the contribution to the BASF Group's free cash flow. It includes only those amounts that can be controlled by the segment and is calculated from the EBITDA, changes in inventories and trade accounts receivable, other extraordinary 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

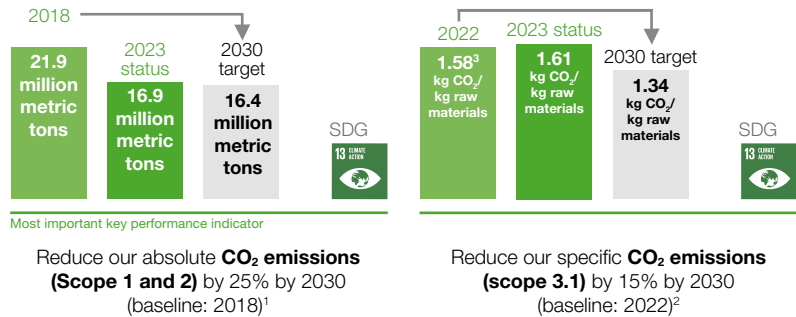
EBITDA
+ Changes in inventories
+ Changes in trade accounts receivable
+ Other changes
- Payments made for property, plant and equipment and intangible assets
= Segment cash flow
+ Net income from shareholdings
+ Financial result
+ Income taxes
+ Changes in other balance sheet items and adjustment of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

Targets and Target Achievement 2023

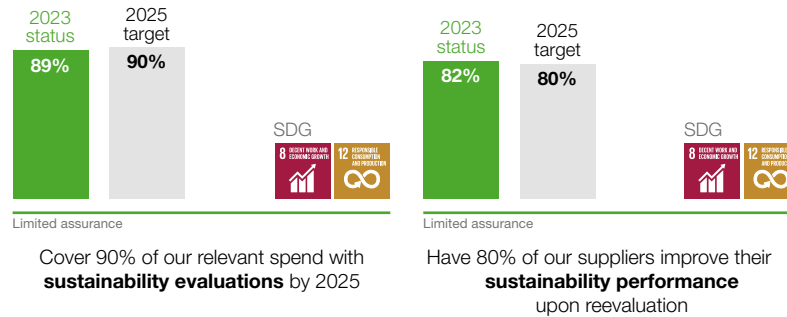
Profitable growth



Effective climate protection



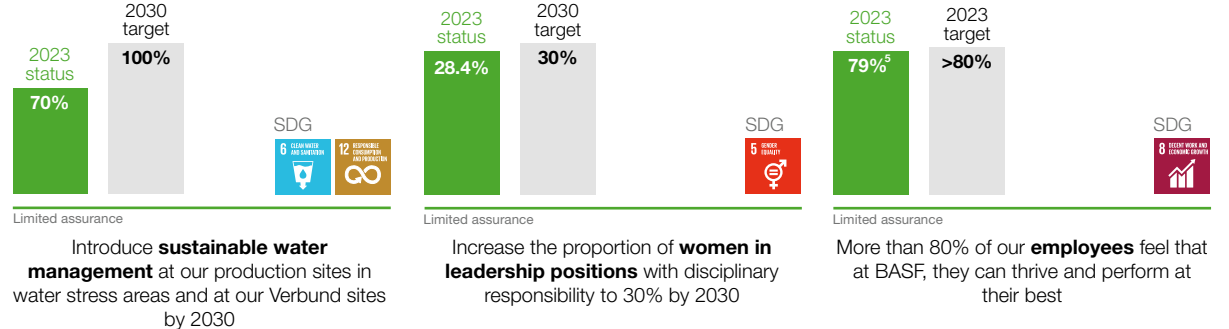
Responsible procurement



Resource-efficient and safe production



Committed employees and diversity



↓ Reduction targets

- 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.

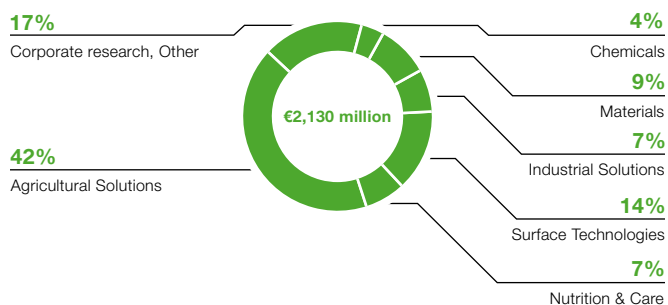
Innovation

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.

Innovation has always been the key to BASF's success. The knowledge and skills of our highly qualified employees are 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 R&D 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.

Research and development expenses by segment 2023



Our innovation focus is on developing new products, solutions and product improvements that offer our customers competitive and

sustainability advantages. By helping them to reduce their carbon footprint, use resources more efficiently, or manufacture products in a more environmentally friendly way and recycle them, we 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 R&D activities. In the long term, we aim to further increase sales and earnings with new and improved products – especially with products that make a substantial sustainability contribution in the value chain (see page 17).

Our R&D 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 R&D 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 or biotechnological methods.

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.

[For more information on low-carbon production processes, see page 20](#)

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 attest to our power of innovation 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.

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.

[For more information on our academic research alliances, see BASF Report 2023, page 55](#)

Sustainability

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.

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.

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 impact 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) portfolio analysis, BASF's corporate carbon footprint or the calculation of product carbon footprints.

A significant steering tool for the product portfolio, based on the sustainability performance of our products, is TripleS. Following an update to the method in 2022, we categorize our product portfolio into five segments, taking sustainability-related aspects into account: Pioneer, Contributor, Standard, Monitored and Challenged (see graphic). We began to reassess products in 2023, and 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.

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. 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.

TripleS (Sustainable Solution Steering)¹

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

¹ Sales shares based on the analysis of the relevant portfolio carried out by the end of 2023. See the TripleS manual at basf.com/en/sustainable-solution-steering for the definition of the relevant portfolio and further information. 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.

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

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 latter amount as part of TripleS by the end of 2023.¹ 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.

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).

In 2023, we updated our materiality analysis from 2022 that already addressed the double materiality required by regulations from 2024 onward. 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 material² and confirmed by the BASF Sustainability Reporting and Controlling Committee. We are now reviewing the methodology of our materiality analysis again to

ensure that it meets the requirements of the European Sustainability Reporting Standards.

 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, the 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.

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.

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 Nature Advisory Council (see page 21) and the Human Rights Advisory Council (see page 22).

We promote continuous exchange between 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 our stakeholder activities, see [basf.com/stakeholder-engagement](https://www.basf.com/stakeholder-engagement)

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

For more information on our guidelines for responsible lobbying, see [basf.com/responsible-lobbying](https://www.basf.com/responsible-lobbying)

For more information on the Industry Associations Review, see [basf.com/corporategovernance](https://www.basf.com/corporategovernance)

Energy and climate protection

As an energy-intensive company, we take responsibility for the efficient use of energy and global climate protection and are committed to the Paris Climate Agreement. Although the transformation toward climate neutrality is challenging for energy-intensive companies, BASF is determined to follow this path and become a pioneer in low-emission chemistry.

Our products and solutions contribute to reducing greenhouse gas emissions in many areas. At the same time, we are working to significantly reduce our CO₂ emissions along the value chain. This creates opportunities for our business activities.

¹ Sum of validated and provisional segmentation

² Biodiversity; business ethics; circularity and resource efficiency; climate change adaptation; climate change mitigation; diversity, inclusion and equal work; human rights and labor rights; process safety, occupational health and safety; product stewardship; waste; water and wastewater

To reduce our greenhouse gas emissions and demand for fossil raw materials, we are focusing on the following measures:

- Renewable energy: We are increasingly meeting our electricity needs from renewable sources.
- CO₂ abatement: We are taking targeted measures to avoid CO₂ emissions.
- Circularity: We are increasingly using renewable and recycled raw materials as well as raw materials based on the use of CO₂.

We only consider external offsetting for our Scope 1 and Scope 2 emissions as a temporary solution in the medium term if our activities do not make the desired contribution to reducing emissions.

For more information on climate protection, see basf.com/climate_protection

Global targets

Compared with the 2018 baseline, we want to reduce greenhouse gas emissions from our production processes (Scope 1) and our sites and our energy purchases (Scope 2) by 25% by 2030¹ – despite our growth plans and the construction of a new Verbund site

in Southern China. This corresponds to a decrease of around 60% compared with 1990. Our long-term goal is net zero greenhouse gas emissions by 2050.¹ Between 2024 and 2027, we are planning investments totaling around €900 million in our transformation toward net zero.

In 2023, the BASF Group's Scope 1 and 2 emissions amounted to 16.9 million metric tons of CO₂ equivalents (2022: 18.4 million metric tons). The decline in demand compared with the previous year as a result of a weak economy led to persistently low production volumes and therefore lower emissions in 2023. The share of electricity from renewable sources was increased compared with the previous year, to 20%, and, together with measures to increase energy and process efficiency, made a relevant contribution to reducing emissions.

We also set ourselves an ambitious Scope 3.1 target² in 2023 for our specific raw materials-related emissions. By 2030, we want to reduce these in relation to the purchasing volume specifically by 15% from the 2022 baseline. In 2023, specific Scope 3.1 emissions²

amounted to 1.61 kilograms of CO₂ per kilogram of raw material purchased (2022: 1.58).³ In the long term, we strive to reduce Scope 3.1 emissions to an unavoidable minimum by 2050, thereby expanding our long-term net-zero target to include these greenhouse gas emissions.

Make & buy approach for renewable electricity

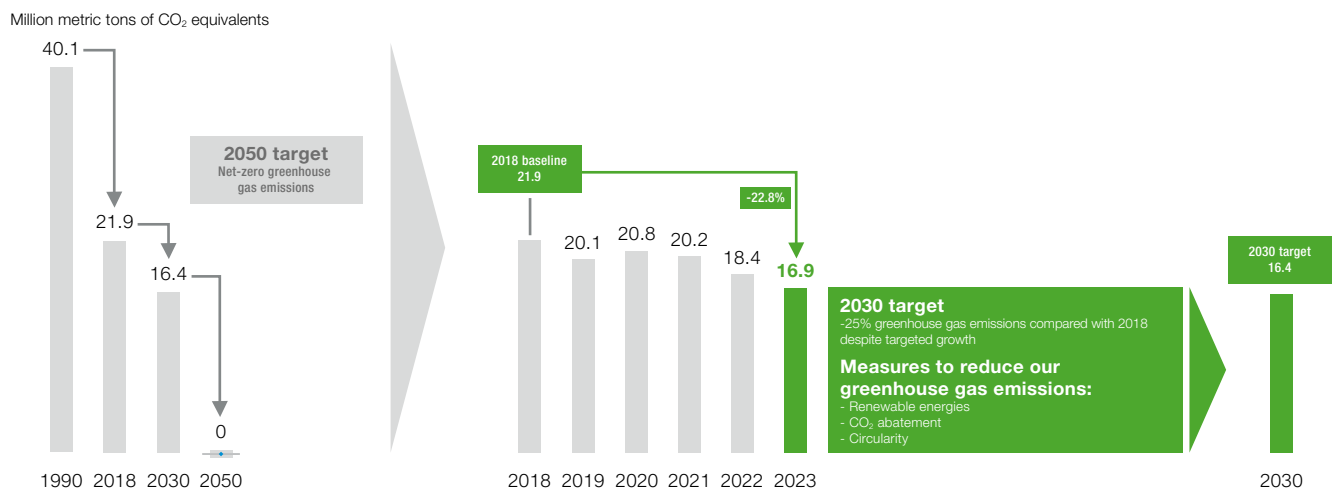
A core component in reducing our greenhouse gas emissions is the gradual conversion of our energy supply from fossil to renewable sources. This mainly affects our electricity supply. In 2023, electricity from renewable sources as a share of total electricity consumption rose compared with the previous year to 20% (2022: 17%).⁴ Our electricity requirements will increase significantly in the coming years due to the planned gradual electrification of our steam generation and the switch from natural gas-based to electricity-based, low-emission production processes, for example in our steam cracker. Nevertheless, we aim to source more than 60% of our power needs from renewable sources by 2030.

In the transformation of our power supply, we are pursuing a make & buy approach. Firstly, BASF is investing in its own renewable power assets. Secondly, we are purchasing green power on the market through long-term supply agreements. Profitability and additivity are key purchasing criteria: This means that the electricity purchased is primarily sourced from new renewable energy facilities.

In 2023, we successfully advanced our plan for a power supply from renewable sources. The Hollandse Kust Zuid offshore wind farm, a joint project with Vattenfall and Allianz, was officially inaugurated in fall 2023 and should be fully operational in 2024. With 139 turbines and a capacity of 1.5 gigawatts, it is one of the largest offshore wind farms in the world. In April 2024, BASF signed an agreement to purchase 49% of Vattenfall's wind farms Nordlicht 1 and 2.

In order to be able to fully supply our Verbund site in Zhanjiang in Southern China, which is currently under construction, with electricity from renewable sources in the future, we have entered into a joint

Schematic overview: Development of the BASF Group's greenhouse gas emissions (Scope 1 and 2)¹



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).
² Scope 3.1, raw materials excluding battery materials, excluding 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.
³ The value for 2022 was adjusted due to increased data availability.
⁴ The comparative figure for 2022 has been adjusted to reflect updated data.

venture with Mingyang for an offshore wind farm in Southern China, which includes development, construction and operation. We have also extended our long-term supply contract with the State Power Investment Corporation (SPIC) and secured a supply of 1,000 gigawatt hours of green electricity per year from 2025. In 2023, we also concluded further long-term supply agreements for green power at other sites in Asia, such as the Verbund site in Nanjing, China, and our sites in South Korea. In North America, for example, we were able to secure around 250 megawatts of solar generation capacity through virtual power purchase agreements in 2022.

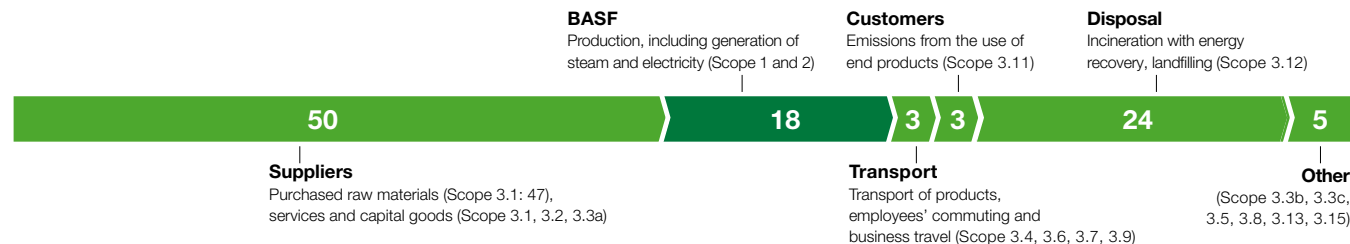
Climate-smart technologies

To further reduce CO₂ emissions, we are also developing completely new technologies for emission-free and low-emission production. They will need large volumes of electricity from renewable sources in order to realize their full potential. The main focus here is on basic chemicals, which are often still emission-intensive to produce. This applies, for example, to steam crackers, which use high levels of energy to break down naphtha into olefins and aromatics. We started up a demonstration plant¹ for electrically heated steam cracker furnaces at our site in Ludwigshafen, Germany, together with our partners SABIC and Linde, in April 2024.

A further important basic material in the chemical industry is hydrogen, which we have so far mainly used as a raw material. We started construction of a PEM (proton exchange membrane) water electrolyzer² with a capacity of 54 megawatts at the Ludwigshafen site in Germany with Siemens Energy in 2023. Powered by electricity from renewable energy, the plant, which will go into operation in 2025, is expected to produce up to 8,000 metric tons of emission-free hydrogen and thus reduce greenhouse gas emissions at the site by up to 72,000 metric tons per year. BASF will primarily use the hydrogen produced as a raw material for the manufacture of products with a reduced carbon footprint.

Emissions along the BASF value chain in 2023³

Million metric tons of CO₂ equivalents



Another focus area of our technological development is carbon capture and storage (CCS). For example, we are currently part of an industrial CCS project at the Antwerp site in Belgium (Kairos@C) as the first phase of the Antwerp@C project, which could enable BASF to avoid the emission of up to 1 million metric tons of CO₂ into the atmosphere every year from production. Together with Yara, we are also evaluating the development and construction of a world-scale production plant for low-emission blue ammonia using CCS in the United States. Around 95% of the CO₂ generated from the production process is to be captured and permanently stored in the ground.

Corporate carbon footprint

BASF has published a comprehensive corporate carbon footprint every year since 2008. This reports on all emissions along the value chain – from raw materials to production and disposal (see graphic).

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

Product carbon footprints

In 2020, we developed a digital solution to make our product-specific greenhouse gas emissions more transparent and thereby determined the carbon footprints of around 45,000 sales products. These product carbon footprints (PCFs) include all greenhouse gas emissions – from raw materials extraction to the finished product leaving the factory gates (“cradle-to-gate”). In 2023, we further

expanded our portfolio of products with a certified reduced carbon footprint, including engineering plastics.

We make our automated PCF calculation approach available to interested industry players through partnerships. At the same time, we are involved in various initiatives to drive transparency, harmonization and standardization across the industry. This also took place as part of Together for Sustainability (TfS), where we were involved in the creation of a uniform guideline for calculating the carbon footprint of products in the chemical industry. This will enable the climate impact of products to be directly compared and evaluated based on a standardized approach. A digital solution for sharing PCF data between companies is currently in the pilot phase and should be implemented in 2024.

[For more information on product carbon footprints, see basf.com/en/pcf](https://www.basf.com/en/pcf)

We launched our Supplier CO₂ Management Program in 2021 to achieve transparency regarding Scope 3.1 emissions. The goal is to obtain a more accurate data basis and better manage and reduce emissions in the supply chain. In a first step, we have requested the PCFs of our raw materials since 2021 and support our suppliers in determining these, for example, by sharing our knowledge of evaluation and calculation methods with them. Since the start of the program, we have approached more than 1,600 suppliers, covering around 70% of our raw materials-related greenhouse gas emissions.

¹ The project has been granted €14.8 million from Germany's Federal Ministry for Economic Affairs and Climate Action (BMWK) under the Decarbonization in Industry funding program. The project is also being financed by the European Union via the NextGenerationEU fund.
² The project is funded by the BMWK and the Federal State of Rhineland-Palatinate.
³ According to the Greenhouse Gas Protocol, Scope 1, 2 and 3; reported categories within Scope 3 are shown in parentheses. Scope 3 emissions in category 10 (“Processing of sold products”) are not reported according to the standard for the chemical sector. Only direct use phase emissions are reported in the customer category (Scope 3.11). Excluding greenhouse gas emissions from BASF trading activities.

After around two years, we have more than 1,000 validated PCFs for our raw materials. In a second step, we will now work with our suppliers on solutions to reduce product-related emissions.

 For more information on the Supplier CO₂ Management Program, see basf.com/suppliers

Water

Introducing and implementing sustainable water management has been a cornerstone of our strategy for many years now. Our goal is to introduce sustainable water management at our Verbund sites and at all production sites in water stress areas by 2030, covering around 90% of BASF's total water abstraction. We achieved 70% of our target in 2023 (2022: 62%). Sustainable water management was introduced at seven further sites in 2023 (2022: seven sites). In 2023, BASF again achieved Leadership status with a rating of A- in CDP's water assessment.

 For more information on our position paper on water protection, see basf.com/water

Biodiversity

As a chemical company, we use many valuable resources provided by nature such as water, air and soil. At the same time, our business activities have an impact on nature, through emissions into the environment or the purchase of renewable raw materials. Protecting biodiversity is therefore a key element of our commitment to climate protection and sustainability. We want to contribute to achieving the global goal to halt and reverse biodiversity loss by 2030.

To better understand BASF's impact on nature, we are guided by the five drivers of biodiversity loss defined by the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES): land-use change, pollution, climate change, overexploitation and invasive species. We do not consider the latter to be material for BASF.

We actively seek out partnerships with relevant interest groups and organizations worldwide, for example, in the Taskforce on Nature-

related Financial Disclosures (TNFD), to expand our knowledge, to raise awareness about biodiversity and to drive necessary actions forward. In 2023, BASF founded a new advisory council for topics related to the protection of biodiversity and ecosystems, the Nature Advisory Council (NAC), to obtain an independent societal perspective on our activities related to nature and biodiversity issues. The aim is to receive constructive feedback and specific advice on nature-related topics and our strategic approach as well as our contributions to a sustainable future.

 For more information on our Nature Advisory Council, see basf.com/en/nature-advisory-council

We align our biodiversity measures with the impact of our business activities along the value chain. Our focus here is on three areas: supply chains, sites and production, and product impacts. For this purpose, we are guided by the risk mitigation hierarchy: We try to avoid having an impact on nature. If this is not feasible, we want to reduce these impacts, support the restoration of nature or contribute to the transformation of value chains toward better environmental sustainability. Currently, there is no standardized, globally accepted indicator for the loss of biodiversity (in contrast to greenhouse gas emissions as a key indicator of climate change). In addition, impacts must be considered primarily in a local context. We therefore use indicators such as nitrogen emissions to water to measure drivers of biodiversity loss and species occurrence to assess the status of ecosystems.

We evaluate our products and solutions in crop protection and seeds, for example, throughout the entire research, development and registration process. After they have been approved for the market, we continue assessing them regularly for potential risks and impacts on the ecosystems in which they are used. We have initiated various projects and offer training to prevent misuse of our products.

 For more information on product stewardship for crop protection products and seeds, see [BASF Report 2023, page 149](#)

Some of the business activities of our raw materials suppliers involve land uses that can influence biodiversity. We have laid down our expectations with regard to environmental, labor and social stan-

dards in the supply chain as well as our commitment to preserving biodiversity in the Supplier Code of Conduct.

BASF again participated in the "Forests" assessment conducted by the international organization CDP in 2023 and achieved a score of A-, once more giving us Leadership status.

 For more information on the CDP forests questionnaire, see basf.com/en/cdp

Raw materials

In 2023, BASF purchased around 30,000 different raw materials from more than 6,000 suppliers. Our focus is on a secure supply and stable supply chains, in which our suppliers source and produce raw materials in line with environmental and social requirements. Our expectations of our suppliers are laid down in our Supplier Code of Conduct.

 For more information on supplier management, see basf.com/suppliers

Fossil and petrochemical resources

BASF's most important raw materials (based on volume) include natural gas and crude oil-based petrochemical products such as naphtha and benzene. We are continuously evaluating whether fossil and petrochemical resources can be replaced with nonfossil or recycled alternatives.

Renewable resources

In addition to fossil resources, we employ renewable raw materials, mainly based on vegetable oils, fats, grains, sugar and wood. In 2023, we purchased around 1 million metric tons of renewable raw materials. The mass balance approach allows us to allocate the amount of renewable raw materials used to a wide variety of end products. Palm oil, palm kernel oil and their derivatives are some of our most important renewable raw materials. We aim to ensure that palm-based raw materials come from certified sustainable sources. We have been a member of the Roundtable on Sustainable Palm Oil (RSPO) since 2004. For the first time in 2023, our Care Chemicals division published a comprehensive Responsible Sourcing Report on the palm value chain as well as further renewable raw materials

value chains. In 2023, we purchased 159,798 metric tons of certified palm oil and palm kernel oil (2022: 191,714). We again met our own voluntary commitment to source only RSPO-certified palm oil and palm kernel oil.

 For more information on our voluntary commitment to palm oil products and the Responsible Sourcing Report, see basf.com/en/palm-dialog

Recycled feedstocks

Recycling is playing an increasingly important role due to limited resources, growing sustainability requirements in the markets, and regulatory developments. In a challenging environment with limited availability of alternative raw materials, we still aim to process around 250,000 metric tons of recycled and waste-based raw materials in our production plants annually from 2025, replacing fossil raw materials.

Chemical recycling of plastic waste complements mechanical recycling and can help to reduce the amount of plastic waste that is disposed of in landfills or thermally recovered. In our ChemCycling® project, our technology partners use the pyrolysis process to produce pyrolysis oil from mixed plastic waste or end-of-life tires, which are not currently mechanically recycled. We feed the pyrolysis oil into the BASF Verbund as a substitute for fossil raw materials and manufacture new products from it using the mass balance principle. Our customers can process these mass balanced products in the same way as conventional products. Our portfolio of Cycled® products now comprises around 240 products.

With the rapidly growing market for electric vehicles, there is also an increasing need for recycling lithium-ion batteries. As a leading producer of battery materials with local production capacities in the three main markets – Asia, Europe and North America – BASF has in-depth expertise in battery chemistry and process technology. We are utilizing these competencies to address battery recycling as an additional growth market in cooperation with partners along the value chain. In this way, we want to ensure that valuable metals remain in the production cycle for as long as possible.

 For more information on circular economy, see [BASF Report 2023, page 46](#)

Mineral raw materials

Responsible sourcing of mineral raw materials is important to BASF as we are aware of the challenges in the supply chain and our due diligence. We have implemented the E.U. Conflict Minerals Regulation. This defines supply chain due diligence for tin, tantalum, tungsten, their ores and gold (3TG) imported into the E.U. from conflict-affected and high-risk areas (CAHRAs). In addition, BASF is committed to responsible and sustainable global supply chains for other mineral raw materials. These include cobalt, a key component in the production of battery materials. Together with BMW Group, Samsung SDI Co. Ltd., Samsung Electronics Co. Ltd., Volkswagen AG, Stihl AG & Co. KG and GIZ, we have been involved in the cross-industry Cobalt for Development initiative since 2018. Together with BMW Group, Mercedes-Benz AG, Fairphone B.V., Daimler Truck AG and Volkswagen Group, we have also been a member of the Responsible Lithium Partnership since 2021.

 For more information on the Cobalt for Development project, see basf.com/cobalt-initiative

Responsibility for human rights

BASF acknowledges its responsibility to respect internationally recognized human rights. Through our business, we are connected to a large number of people worldwide who are directly or indirectly influenced by our activities. We accept the resulting obligations and opportunities along the supply chain in accordance with our scope of influence. For many years, we have engaged in constructive dialog on human rights with other companies, nongovernmental organizations, international organizations and multistakeholder initiatives to better understand different perspectives and address conflicting goals. We have embedded our responsibility for human rights into our Code of Conduct and set this out in our Policy Statement on Human Rights. The head of our legal and compliance organization also acts as Chief Human Rights Officer and oversees the overarching risk management.

We established a Human Rights Advisory Council (HRAC) in 2020 to integrate external expertise. Its members include independent international human rights experts. The trust-based dialog on human

rights topics helps us to better understand different perspectives and to deal more openly with critical situations.

 For more information, see basf.com/humanrights

 For more information on the Human Rights Advisory Council, see basf.com/human-rights-council

Safe and efficient production

Our comprehensive safety concepts are designed to provide the best possible protection for employees, contractors and our sites' neighbors, and to prevent damage to property and the environment. Our sites and Group companies are responsible for implementing and complying with Group-wide requirements and local standards. The Environmental Protection, Health, Safety and Quality (EHSQ) unit in the Corporate Center performs regular audits to check compliance with these requirements.

We use the number of High Severity Process Safety Incidents (hsPSI) per 200,000 working hours as a reporting indicator. We have set ourselves the target of reducing High Severity Process Safety Incidents to a rate of no more than 0.10 per 200,000 working hours by 2030.

 For more information on process safety, see basf.com/process_safety

For occupational safety, we use the number of High Severity Work Process Related Injuries (HSI) per 200,000 working hours as a target. We have set ourselves the goal of reducing high-severity work process-related injuries to a rate of no more than 0.05 HSI per 200,000 working hours by 2030.¹

 For more information on occupational safety, see basf.com/occupational_safety

Product safety

We see product safety as an integral part of all business processes, as an element of our risk management and as an important pillar of our commitment to Responsible Care®. We continuously work to ensure that our products pose no risk to people or the environment when they are used responsibly and in the manner intended.

 For more information, see basf.com/product-safety

¹ Hours worked by BASF employees, temporary workers and contractors

Portfolio

Investments are a key driver of profitable growth. To achieve our climate protection goals, 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.

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. In North America, among other things, we have been further expanding our production capacities in the isocyanates value chain in 2023. In Europe, the opening of the first co-located 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.

 For more information on the planned Verbund site in Zhanjiang, see [page 24](#)

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.

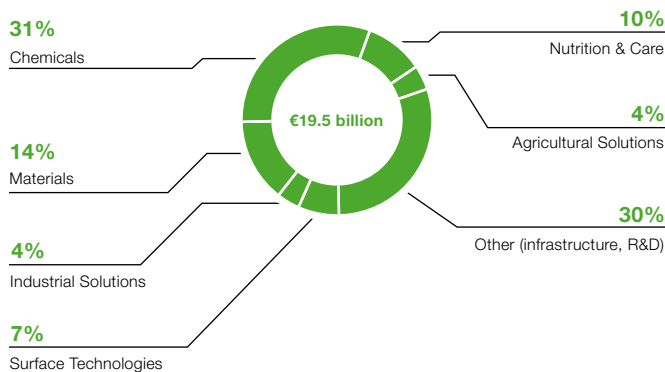
Investments

Investments in property, plant and equipment amounted to €5,864 million in 2023 (2022: €4,842 million). Capital expenditures (capex)¹ 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.

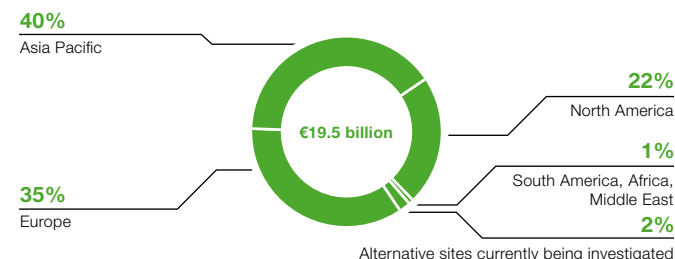
Capex: selected projects

Location	Project
Chalampé, France	Construction of a world-scale production plant for hexamethylenediamine
Geismar, Louisiana	Capacity expansion at MDI plants
Ludwigshafen, Germany	Modernization of chloroformates and acid chlorides plant
Zhanjiang, China	Construction of an integrated Verbund site

Capex by segment 2024–2027



Capex by region 2024–2027



We are planning capex of around €6.2 billion for the BASF Group in 2024, including €3.3 billion for our growth projects, in particular the construction of the new Verbund site in China. For the period from 2024 to 2027, we are planning capex totaling €19.5 billion, including €6.8 billion for our growth projects – the new Verbund site in China, and the expansion of the battery materials business. The investment volume in the next four years will thus be considerably below that of the planning period 2023 to 2026 (€24.5 billion).

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 Sàrl, 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 FOCAT² 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

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

² Fat and Oil CAtalysts

covered production plants, including the associated infrastructure and inventories, as well as the transfer of the employees working at the site.

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 Wintershall Dea's carbon storage (CCS) licences. 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, 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 [page 67](#) onward



Construction in progress at BASF's Zhanjiang Verbund site (status April 2024)

New Verbund site in Zhanjiang

In recent years, market growth in China has been driven by increased domestic consumption, higher standards of living as well as more local value creation. With a global market share of around 50%, China is the largest chemical market and drives the growth of global chemical production. BASF is very well prepared to capture future growth in China. We have built an extensive network throughout the country. The following sites are the backbone of our activities in China:

- Shanghai is home to our Greater China headquarters, one of our two Innovation Campuses in the Asia Pacific region as well as our Caojing production site.
- Nanjing is the location of our joint venture Verbund site with Sinopec as well as a wholly owned site.
- In Chongqing, we operate a wholly owned MDI production complex.

At the end of December 2023, BASF had 12,115 employees in Greater China, 27 wholly owned subsidiaries and 30 production sites. In 2023, BASF posted sales of approximately €9.4 billion to customers in Greater China.

To accelerate our growth in Asia, BASF commenced its Verbund project in Zhanjiang in the southern Chinese province of Guangdong in 2019. The fully owned BASF Verbund site will involve a total investment of around €10 billion. When completed, the site will be BASF's third-largest Verbund site globally. In 2022, BASF made the final investment decision for the main construction phase of the Zhanjiang Verbund site, including a steam cracker and downstream plants to support our customers' growth in the dynamic Chinese market.

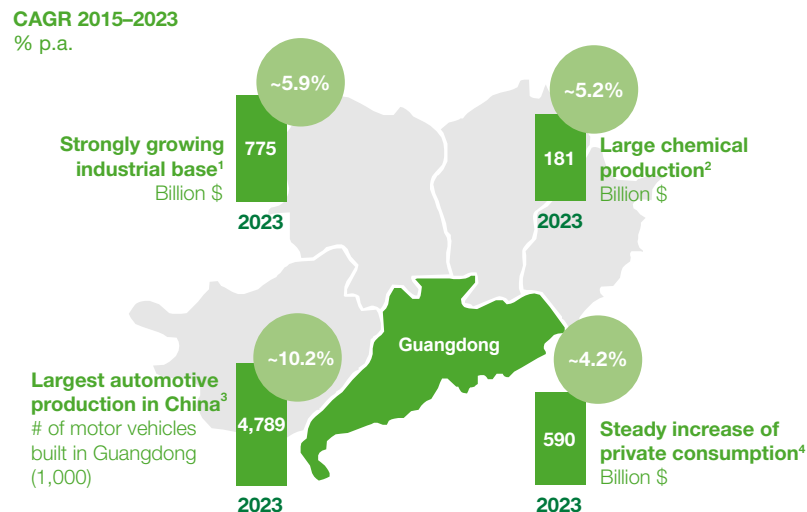
Construction of the first plants started in 2020. A plant started up in July 2022 provides engineering plastics compounds to meet growing

demand from the Chinese automotive and electronics industries. In addition, a production plant for thermoplastic polyurethane (TPU) came on stream in September 2023. The startup of the core of the Verbund – a steam cracker and plants for ethylene oxide, syngas, monoethylene glycol, polyethylene, oxo-C4 alcohols, acrylic monomers and neopentyl glycol – is expected to take place as of 2025. Further value chain expansion is expected to be operational as of 2028.

With around 127 million residents, Guangdong is the most populous province in China. The province is the economic powerhouse of China and accounted for more than 10% of the country's GDP in 2023. Guangdong province is home to many BASF customers in fast-growing industries such as transportation, consumer goods, home and personal care, and electronics. Zhanjiang has a deep-water seaport with easy access to shipments of raw materials and finished goods to and from other ports in China, Asia and other regions. It also offers the shortest sea routes between mainland China and Southeast Asia. The government of Guangdong province is committed to providing this area with world-class infrastructure.

BASF is committed to building the Zhanjiang Verbund site as a model for sustainable production. We aim to power the entire site with 100% renewable electricity by 2025. As BASF's first implementation of a fully digital smart Verbund concept in a large-scale project globally, the site will be built on the basis of cutting-edge technologies that maximize resource and energy efficiency and reduce environmental impact. Circular economy concepts will be incorporated into the new Verbund site to support customers in the region with low-carbon solutions.

Guangdong is home to key customers from fast-growing industries



Market characteristics⁵

- Nearly 127 million residents in Guangdong province (2022)
- GDP Guangdong (2023): > \$1.92 trillion (exceeding Brazil)
- GDP CAGR 2023–2038: ~4.7% p.a.
- Key customer industries: transportation, consumer goods, home and personal care, electronics
- Chemical products are generally undersupplied from local production

1 Industry real output, 2015-based, Guangdong Bureau of Statistics
 2 Real chemical gross output, 2015-based, inferred by gross output/value added ratio for China, Guangdong Bureau of Statistics
 3 Guangdong Bureau of Statistics
 4 Real private consumption, 2015-based, National Bureau of Statistics with S&P Global forecast, subject to retrospective revision
 5 Guangdong Bureau of Statistics, S&P Global

Employees

Our employees make a significant contribution to BASF's success. We want to attract and retain talents for our company and support them in their development. To do so, we strive to cultivate a working environment that inspires and connects people. It is founded on a culture of open leadership based on mutual trust, respect and dedication to top performance.

Strategy

By offering various learning and development opportunities as well as attractive compensation and benefits, and with our commitment to supporting a balance between personal and professional life, we want to maintain our reputation as an attractive employer. In order to continue to attract and retain talents for our company in the future, we work continuously on BASF's attractiveness as an employer. We systematically record short and long-term opportunities and risks as part of our general opportunity and risk management.

Promoting and valuing diversity across all hierarchical levels is an integral part of our strategy and is also embedded in our corporate values. As a global company, we serve many different customer needs. We want to reflect, value and promote this diversity among our employees in order to increase their creativity, motivation and sense of belonging to BASF.

We also promote diversity in the selection and development of our leaders. We have set a global target to promote female leadership and aim to increase the proportion of women in leadership positions to 30% by 2030. We have made important progress toward this target. In the BASF Group, the global proportion of female leaders with disciplinary responsibility was 28.4% at the end of 2023 (2022: 27.2%).

BASF can rely on the engagement of its employees. Employee surveys and pulse checks are used as feedback tools to actively involve employees in shaping their working environment. We have performed regular global employee surveys since 2008, and since 2019, we have also recorded the employee engagement level as an index score based on the answers to five key questions. Overall, more than 84,400 employees worldwide participated in the 2023 survey (participation rate: 74%).¹ The survey revealed an engagement index of 79%, which constitutes a drop of two percentage points compared with the previous year (2022: 81%). Our aim is to get this score back above 80%, the target defined in the BASF strategy.

Number of employees

As of December 31, 2023, the number of employees increased to 111,991 employees compared with 111,481 employees as of December 31, 2022. The rise was primarily due to staff increases in Asia Pacific, especially for the new Verbund site in Zhanjiang, China. This was partially offset by retirements and departures due to dormant employment as well as measures in connection with the cost savings program focused on Europe.

BASF Group employees by region

	December 31, 2023	%
Europe	67,562	60.3
of which Germany	51,406	45.9
Asia Pacific	21,193	18.9
North America	16,060	14.3
South America, Africa, Middle East	7,176	6.4
Total	111,991	100.0

The BASF Group hired 9,168 new employees in 2023. The percentage of employees who resigned during their first three years of employment – the early turnover rate – was 1.4% worldwide

in 2023. This turnover rate was 0.8% in Europe, 3.0% in North America, 1.9% in Asia Pacific and 2.3% in South America, Africa, Middle East.

The voluntary turnover rate, or the proportion of employees who left the company voluntarily, amounted to 3.5% globally. This rate was 2.2% in Europe, 7.1% in North America, 4.7% in Asia Pacific and 5.2% in South America, Africa, Middle East.

As of December 31, 2023, the BASF Group was training 3,045 people in various occupations (2022: 3,049). We spent a total of around €130 million on vocational training in 2023.

 For more information on careers at BASF, see basf.com/careers

Compensation and benefits

We want to attract and retain engaged and qualified employees and motivate them to achieve top performance with a comprehensive package that includes market-oriented compensation, individual development opportunities and a good working environment. Our employees' compensation is based on global compensation principles according to position, market and performance. As a rule, compensation comprises fixed and variable components as well as benefits that often exceed legal requirements. In many countries, these benefits include company pension benefits, supplementary health insurance and share programs. We regularly review our compensation systems at the global and local levels.

We want our employees to contribute to the company's success. This is why the compensation granted to the vast majority of our employees includes variable compensation components, with which they participate in the success of the BASF Group as a whole and are recognized for their individual performance. The same principles essentially apply for all employees worldwide. The amount of the variable component is determined by economic success as well as the employee's individual performance. We use the BASF Group's

¹ The scope of employees surveyed goes beyond the scope of consolidation. However, there are exceptions for companies that represent joint ventures as well as companies held for sale.

return on capital employed (ROCE) to measure economic success for the purposes of variable compensation. This links variable compensation to our ROCE target.¹ Individual performance is assessed as part of a globally consistent performance management process.

BASF Group personnel expenses

Million €

	2023	2022	+/-
Wages and salaries	8,773	9,102	-3.5%
Social security contributions and assistance expenses	1,612	1,598	+0.9%
Pension expenses	565	701	-19.4%
Total personnel expenses	10,950	11,400	-3.9%

Compliance Program and Code of Conduct

BASF's Compliance Program is based on our corporate values and our voluntary commitments, as well as international standards. It describes our commitment to responsible conduct and expectations around how all BASF employees interact with business partners, officials, coworkers and the community.

At the core of our Compliance Program is the global, standardized Code of Conduct. All employees and leaders are obligated to adhere to its guidelines, which cover topics ranging from corruption and antitrust laws to human rights, labor and social standards, conflicts of interest and trade control, and protection of data privacy.

The online version of our Code of Conduct is aimed at our employees and also offers user-friendly features such as case studies, FAQs and additional references. We provide our employees worldwide with up-to-date content such as videos and links to specialist units and guidelines as well as direct contact to subject specialists on the internal online platform and the corresponding app.

The structure of BASF's Code of Conduct

<p style="color: #008000; margin: 0;">We Care</p> <ul style="list-style-type: none"> - Our Code of Conduct - How We Make Decisions - We Always Speak Up - We Lead With Integrity 	<p style="color: #008000; margin: 0;">We Earn Trust</p> <ul style="list-style-type: none"> - Anti-Corruption - Trade Control - Anti-Money Laundering 	<p style="color: #008000; margin: 0;">We Play Fair</p> <ul style="list-style-type: none"> - Antitrust Laws - Gifts and Entertainment - Conflicts of Interest 	<p style="color: #008000; margin: 0;">We Respect</p> <ul style="list-style-type: none"> - Human Rights, Labor and Social Standards - Environmental Protection, Health and Safety 	<p style="color: #008000; margin: 0;">We Protect</p> <ul style="list-style-type: none"> - Sensitive Company Information - Personal Data - Digital Responsibility - Company Property - Accurate Books and Records
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Abiding by compliance standards is the foundation of responsible leadership. This has also been embedded in our corporate values. We are convinced that compliance with these standards will play a key role in securing our company's long-term success. Our efforts are principally aimed at preventing violations from the outset.

We perform a systematic risk assessment to identify and assess material risks of compliance violations, including corruption. These are conducted at divisional and Group company level. The regular compliance audits performed by the Corporate Audit department are another source of information for the systematic identification of risks, which are documented in the relevant risk or audit report. The same applies to specific risk minimization measures as well as the time frame for their implementation.

One key element in violation prevention is compulsory training and workshops held as classroom or online courses. Within a prescribed time frame, all employees are required to take part in basic compliance training, refresher courses and special tutorials dealing with, for example, antitrust legislation, taxes or trade control regulations.

Course materials and formats are constantly updated, taking into account the specific risks of individual target groups and business areas. In 2023, employees around the world were asked to test and

refresh their knowledge in a new interactive online training course. More than 88,700 employees completed this roughly 40-minute-long refresher course. Additionally, more than 33,600 participants worldwide received over 37,000 hours of compliance training in 2023.

For more information on the BASF Code of Conduct, see basf.com/code-of-conduct

Code of Conduct
is the core of our Compliance Program

More than 122,000
participants in compliance training

64 internal audits
on adherence to our compliance standards

¹ In calculating compensation-relevant ROCE, adjustments are made for negative and positive special items resulting from acquisitions and divestitures (for example, integration costs in connection with acquisitions and gains or losses from the divestiture of businesses) when these exceed a corridor of +/-1% of the average cost of capital basis. An adjustment of the compensation-relevant ROCE (in the first 12 months after closing) therefore only occurs in cases of exceptionally high special items resulting from acquisitions and divestitures.

2

Segments

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Dispersions & Resins	46		
Performance Chemicals	48		
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Catalysts	52		
Coatings	54		

Segments

The BASF Group consists of 11 operating divisions, which are grouped into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. This segment structure enables us to steer our businesses according to market-specific requirements and the competitive environment.

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, ensure 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.

The BASF Group's segments in 2023



Chemicals

The Chemicals segment supplies BASF's other segments and customers with basic chemicals and intermediates.

- Share of sales: 15.0%
- R&D expenses: €83 million
- Investments incl. acquisitions¹: €2,706 million



Materials

In the Materials segment, we produce advanced materials and their precursors for the plastics and plastics processing industries.

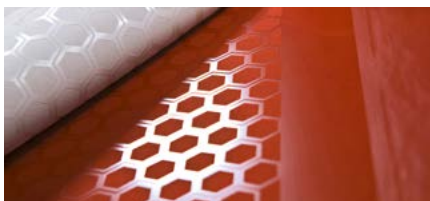
- Share of sales: 20.5%
- R&D expenses: €185 million
- Investments incl. acquisitions¹: €1,083 million



Industrial Solutions

The Industrial Solutions segment develops and markets ingredients and additives for industrial applications.

- Share of sales: 11.6%
- R&D expenses: €150 million
- Investments incl. acquisitions¹: €285 million



Surface Technologies

The Surface Technologies segment provides chemical solutions for surfaces and automotive OEM coatings, as well as battery materials and catalysts.

- Share of sales: 23.5%
- R&D expenses: €304 million
- Investments incl. acquisitions¹: €621 million



Nutrition & Care

The Nutrition & Care segment produces ingredients and solutions for consumer applications such as human and animal nutrition, cleaning agents and personal care.

- Share of sales: 10.0%
- R&D expenses: €150 million
- Investments incl. acquisitions¹: €765 million



Agricultural Solutions

The Agricultural Solutions segment is an integrated solutions provider of seeds, crop protection products and digital solutions for the agricultural sector.

- Share of sales: 14.6%
- R&D expenses: €900 million
- Investments incl. acquisitions¹: €353 million

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

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,

¹ Additions to property, plant and equipment and intangible assets

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 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. BASF is developing tailor-made high-performance cathode active materials (CAM) in close collaboration with its customers to enable the industry transformation towards e-mobility. We complement our portfolio with various battery recycling solutions in order to offer our customers recycled metals, which have a lower carbon footprint compared with virgin metals and help meet regulatory requirements. BASF's unmatched access to OEMs and their suppliers enables an early understanding of market needs, leading to product development from a well-established position in key CAM technologies like NCA (nickel cobalt aluminum) and NCM (nickel cobalt manganese).

Our portfolio addresses various customer requirements, including closed-loop offerings, and ranges from cost-efficient manganese-rich solutions to high-performance high- and ultra-high nickel products, as well as high-performance LMO (lithium manganese oxide) and high-voltage LCO (lithium cobalt oxide) products.

For mobile emissions catalysts, automotive catalysts recycling and associated precious metal services, 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 of 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 are 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 of 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.

In 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.

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

Chemicals

The Chemicals segment consists of the Petrochemicals and Intermediates divisions. It supplies the other segments with basic chemicals and intermediates, contributing to the organic growth of our key value chains as well as to our direct customer business. Alongside internal transfers, our customers mainly come from the chemical and plastics industries. We aim to further expand our competitiveness through technological leadership and operational excellence.

Divisions

Petrochemicals

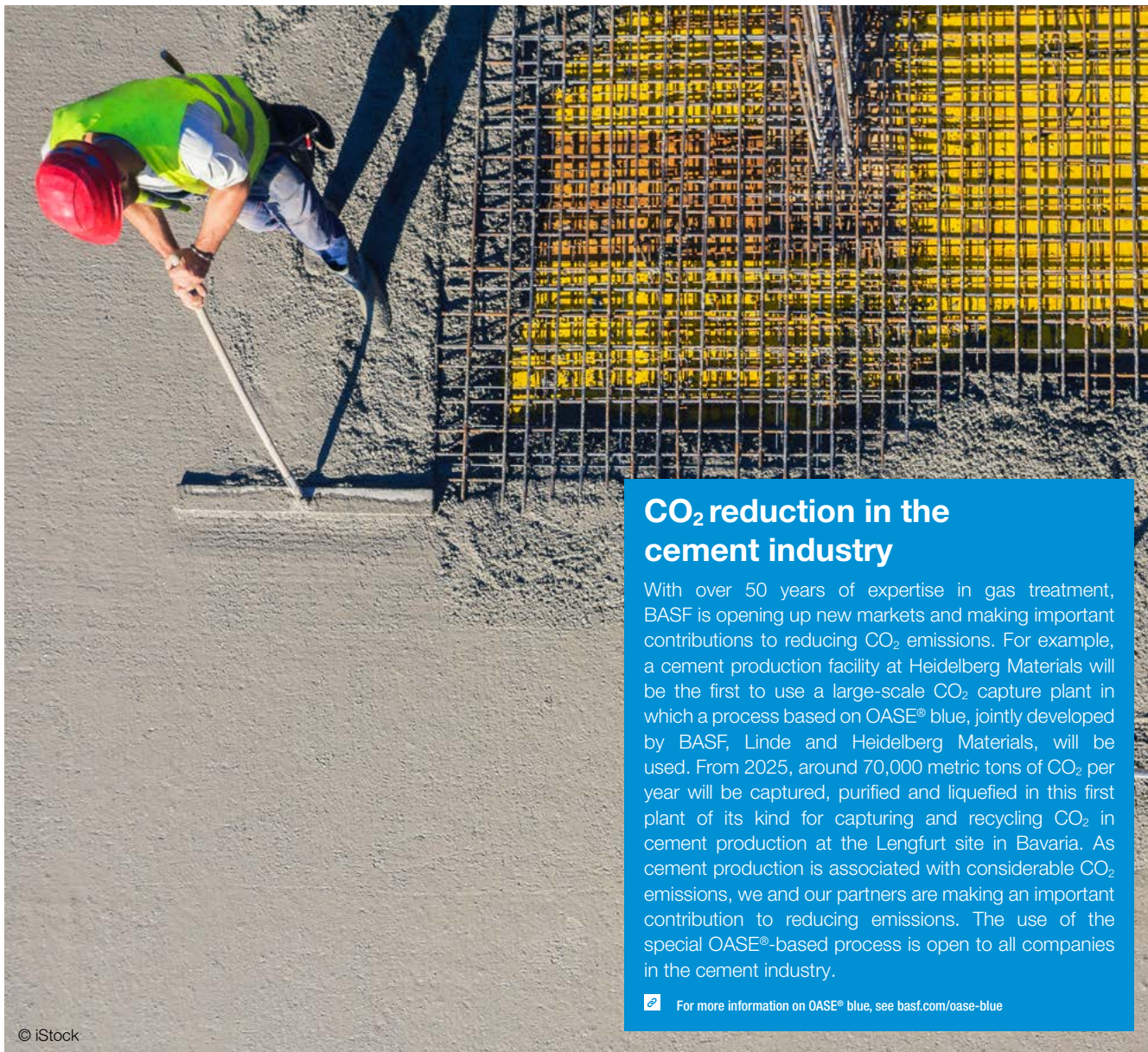
Broad portfolio of high-quality basic chemicals and specialties, tailored to the needs of internal and external customers, which serve as starting materials for products such as dispersions, paints, coatings, plastics, insulating materials and hygiene products

 page 34

Intermediates

Comprehensive portfolio of commodities and specialties, which are used as precursors for products such as coatings, plastics, textile fibers, pharmaceuticals and crop protection products

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CO₂ reduction in the cement industry

With over 50 years of expertise in gas treatment, BASF is opening up new markets and making important contributions to reducing CO₂ emissions. For example, a cement production facility at Heidelberg Materials will be the first to use a large-scale CO₂ capture plant in which a process based on OASE® blue, jointly developed by BASF, Linde and Heidelberg Materials, will be used. From 2025, around 70,000 metric tons of CO₂ per year will be captured, purified and liquefied in this first plant of its kind for capturing and recycling CO₂ in cement production at the Lengfurt site in Bavaria. As cement production is associated with considerable CO₂ emissions, we and our partners are making an important contribution to reducing emissions. The use of the special OASE®-based process is open to all companies in the cement industry.

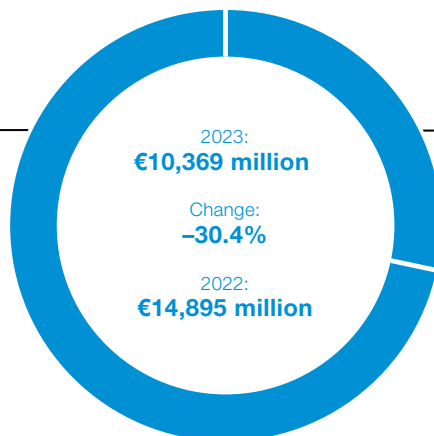
 For more information on OASE® blue, see basf.com/oase-blue

Chemicals

Sales

€7,418 million

Petrochemicals
Change: -29.7%
Share of sales: 71.5%



€2,951 million

Intermediates
Change: -32.2%
Share of sales: 28.5%

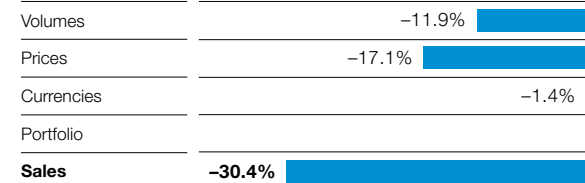
Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	10,369	14,895	13,579	8,071	9,532
Share of total BASF sales	% 15.0	17.1	17.3	13.6	16.1
of which Petrochemicals	7,418	10,546	9,674	5,426	6,670
Intermediates	2,951	4,349	3,904	2,645	2,862
Income from operations before depreciation, amortization and special items	1,167	2,774	3,842	1,305	1,574
EBITDA margin before special items	% 11.3	18.6	28.3	16.2	16.5
Income from operations before depreciation and amortization (EBITDA)	1,167	2,771	3,882	1,237	1,545
EBITDA margin	% 11.3	18.6	28.6	15.3	16.2
Income from operations (EBIT) before special items	361	1,956	3,092	445	791
Income from operations (EBIT)	364	1,758	3,115	-192	622
Segment cash flow	-936	1,878	-	-	-
Return on capital employed (ROCE)	% 3.3	15.6	33.9	-2.2	6.8

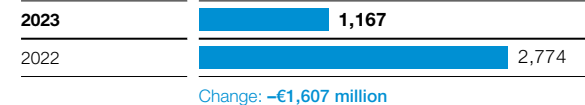
Factors influencing sales

2023 versus 2022



EBITDA before special items

Million €



Petrochemicals

The Petrochemicals division is the starting point of BASF's petrochemical-based value chains throughout the regions. The division manufactures and markets a broad portfolio of high-quality basic chemicals and tailored specialties for internal and external customers. To contribute to BASF's net zero goal, we offer certain products based on circular or bio-based feedstock. For this purpose, either renewable or chemically recycled feedstock is used instead of virgin fossil resources at the beginning of the value chain. Furthermore, we develop processes to reduce greenhouse gas emissions in our existing plants.

Portfolio

Acrylic monomers and superabsorbent polymers

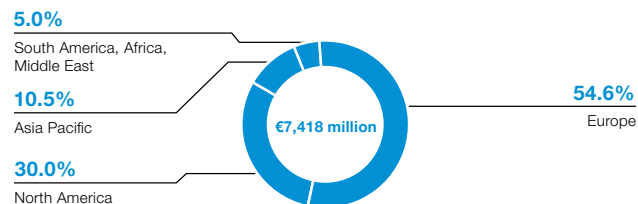
BASF is the world's largest and most widespread producer of acrylic monomers, which are sold to internal and external customers in the form of acrylic acid, acrylic esters and specialty acrylates. Acrylic monomers are used as precursors to manufacture acrylic polymers and polymer dispersions for various applications such as adhesives, coatings, flocculants, superabsorbent polymers and surfactants.

Superabsorbent polymers (SAP) are used in various hygiene applications, such as baby diapers, adult incontinence products and feminine hygiene articles. With our world-scale production plants in every region, we are close to our customers. Through our market knowledge and R&D expertise, we aim to foster trusted relationships with customers and partners in the global hygiene industry.

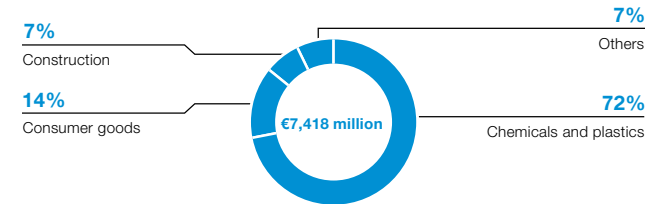
Alcohols and solvents

BASF is the world's largest producer of oxo alcohols and is also a major producer of oxygenated solvents in Europe, including acetates, glycol ethers, glycol ether acetates and specialty solvents. Major customer industries are paints and coatings, pharmaceuticals and cosmetics.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



Alkylene oxides and glycols

Ethylene oxide derived from ethylene is used mainly to produce surfactants, ethanolamines, glycols, glycol ethers and polyols. Ethylene glycol is used in antifreeze applications and the production of fibers, films and PET (polyethylene terephthalate) plastic bottles.

Cracker products

BASF produces the entire range of cracker products from ethylene and propylene to butadiene, butenes, benzene and others.

Plasticizers

BASF offers a broad product portfolio of general purpose and special purpose plasticizers. Plasticizers give flexibility to PVC products such as cables or films. At the same time, they offer protection against the effects of weathering and temperature, thereby helping to maintain the product's functionality. Plasticizers are used in a large number of industries such as construction, automotive, toys and medical devices.

Styrenics

The styrenics value chain of BASF comprises styrene monomer, polystyrene, extruded polystyrene (XPS, with the brand Styrodur®) and expandable polystyrene (EPS, with the brands Styropor® and Neopor®). The most important industries for BASF's styrenics business are construction and packaging, where the unique properties of styrenic polymers allow customers to realize various eco-efficient solutions, for example, as insulation material.

Innovation example



New bio-based monomer: 2-octyl acrylate

BASF developed and implemented a large-scale production process for a new acrylic monomer with castor oil as bio-based feedstock. This new 2-octyl acrylate is used in coatings applications or adhesives formulations. With its Verbund structure, BASF provides this bio-based monomer in an inexpensive and sustainable way and supports its customers in achieving their sustainability goals.

BASF's market position and main competitors

The Petrochemicals division holds one of the top three market positions in almost half of the strategic business areas in which it is active.

The main competitors (alphabetical order) include Dow, Evonik, ExxonMobil, INEOS, LG Chem, LyondellBasell, Nippon Shokubai, SABIC, Shell, Sinopec and Wanhua.

Focus of research and development

We aim to set the benchmark for cost competitiveness and environmental footprint. The focus is on developing new processes and optimizing our existing ones. We want to be a thought and action leader in sustainability with a special focus on CO₂ reduction and

the circular economy. In terms of product innovation, we advance research in the field of superabsorbent polymers, styrenics and bio-based oxo-alcohols.

Key capabilities of BASF

- Competitive Verbund sites with world-scale production facilities
- Leading process technology and operational excellence
- Enabling reduction of greenhouse gas emissions
- Strong global market position with regional production
- Outstanding market knowledge, technical capabilities and innovation competence

Acquisitions/JVs/investments/divestitures/shutdowns

From 2021 onward

Product group	Description	Year
tert-Butyl acrylate	New plant in Nanjing, China	2023
Cracker products and downstream	Establishment of an integrated Verbund site in Zhanjiang, China	until 2030
Ethylene oxide	Expansion of integrated complex in Antwerp, Belgium	2023
Superabsorbent polymers	Closure of production in Mannheim, Germany	2022
	Investment in Excellence Center in Antwerp, Belgium	2023

Major nameplate capacities of BASF

Thousand metric tons per year

Product group	Location													Total ⁵
	Antwerp, Belgium	Camaçari, Brazil	Cornwall, Canada	Freeport, Texas	Geismar, Louisiana	Rayong, Thailand	Kuantan, Malaysia ¹	Ludwigshafen, Germany	Nanjing, China ²	Pasadena, Texas	Port Arthur, Texas ³	Tarragona, Spain ⁴	Ulsan, South Korea	
Acrylic acid	■	■		■			■	■	■					1,510
Benzene	■							■	■		■			910
Butadiene	■							■	■		■			680
Ethylene	■							■	■		■			3,480
Ethylene oxide	■				■			■	■					1,655
Oxo C4 alcohols				■			■	■	■	■				1,625
Plasticizers (incl. Hexamoll® DINCH)			■					■		■				595
Propylene	■							■	■		■	■		2,680
Styropor®/Neopor®								■					■	545
Superabsorbents	■	■		■			■		■					585

1 BASF 60%; PETRONAS 40%

2 BASF 50%; Sinopec 50%

3 BASF 60%; Total 40%

4 BASF 51%; Sonatrach 49%

5 All capacities are included at 100%, including plants belonging to joint operations and joint ventures.

Intermediates

With more than 600 products in its portfolio, in particular amines, diols, polyalcohols, acids and specialties, the Intermediates division offers innovative solutions for a wide range of industries – from coatings and plastics to pharmaceuticals and crop protection. The division focuses primarily on the C1 and C2 value chains. Its products are typically used by customers as precursors for their downstream chemicals, and the products are also widely used for BASF's own downstream production. The Intermediates division is a global leader in sustainable chemical intermediates, which can support our customers in achieving their sustainability goals, for instance with our OASE® gas treatment solutions as well as LowPCF and ZeroPCF products.

Portfolio

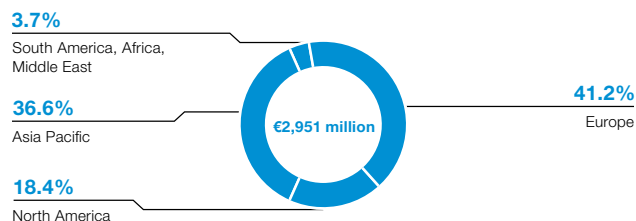
Acetylenics and carbonyl derivatives

These specialty intermediates are based on raw materials from BASF's Verbund, such as acetylene and chlorine. Among the acetylene derivatives are vinyl monomers, acetylenic alcohols and higher alkylpyrrolidones. Chlorine-based intermediates include acid chlorides and chloroformates. Further specialty intermediates are glyoxal and imidazoles, cyclododecanone, 2-mercaptoethanol and triphenylphosphine. The products serve as building blocks for crop protection agents and pharmaceuticals or as monomers and performance additives for polymers, coatings and printing inks.

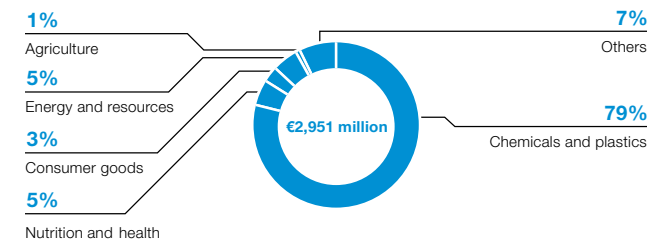
Acids and polyalcohols

BASF is the world's leading manufacturer of polyalcohols, such as neopentyl glycol (NPG) and 1,6 hexanediol (HDO), and carboxylic acids, such as formic and propionic acid. Carboxylic acids are used as preservatives for the feed and food industries, as auxiliaries for textile and leather applications and as deicing agents. The portfolio also includes higher carboxylic acids such as 2-ethylhexanoic acid and isononanoic acid (iNA), which are primarily utilized in synthetic

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



lubricants, paint dryer and PVC plasticizer applications. Polyalcohols are mainly offered for the production of a wide range of coatings.

Amines

With about 300 different amines, we have the world's most diverse portfolio of this type of chemical intermediate. Along with alkyl-, alkanol-, alkoxyalkylamines and ethyleneamines, we offer heterocyclic and aromatic as well as specialty amines. The range is completed by a portfolio of chiral amines of high optical and chemical purity. The versatile products are used mainly to manufacture process chemicals, pharmaceuticals and crop protection agents, as well as cosmetic products and detergents. They also serve to produce coatings, specialty plastics, composites and specialty fibers.

Butanediol and its derivatives

BASF is among the world's largest manufacturers of 1,4-butanediol, which is a chemical building block for products such as polyesters and polyurethanes. Its derivatives are used to manufacture products ranging from fibers to paints, pharmaceuticals and lithium-ion batteries, and include N-methylpyrrolidone, tetrahydrofuran (THF) and PolyTHF®.

Innovation

We consistently align our innovation activities with the needs of our customers. As sustainability is the most important driver of innovation in many of our customer segments, we strive to make our product portfolio more sustainable and thus enable our customers to better achieve their sustainability goals.

We have launched a number of our chemical intermediates as "LowPCF" products globally. This suffix denotes the low carbon footprint (PCF) of these products relative to that of comparable products available on the markets. Our range of LowPCF products currently consists of *tert*-butylamine, formic acid, propionic acid (PA), 1,6-hexanediol (HDO®) and NPG.

In addition, we have been globally offering NPG and PA produced at our Ludwigshafen Verbund site with the suffix "ZeroPCF." We achieve this by using renewable raw materials in our Production Verbund via our biomass balance (BMB)¹ approach. We additionally use renewable energy in the production of NPG.

¹ The biomass balance approach allows fossil fuels to be replaced by renewable raw materials in BASF's Production Verbund. The amount of renewable feedstock is allocated to specific products using a third party-verified certification method. For more information on the mass balance approach, see [basf.com/massbalance](https://www.basf.com/massbalance)

Innovation example



© Asahi Kasei

BASF supplies Asahi Kasei with biomass-balanced THF

BASF supplies biomass-balanced tetrahydrofuran (THF BMB) to the ROICA Division of Asahi Kasei Corporation, a multinational Japanese company. Asahi Kasei uses BASF's THF BMB to produce its sustainable stretch fiber under the ROICA™ brand. The BMB product variant has a carbon footprint significantly lower than BASF's standard THF products. According to Asahi Kasei, utilizing the BMB variant can lead to a reduction in CO₂ emissions of about 25% compared to its existing products.

As drop-in solutions, our LowPCF and ZeroPCF products have the identical quality and properties as standard products. As a result, our customers can use them without having to adapt their existing processes. Customers can easily and efficiently reduce their Scope 3 emissions from purchased goods and increase the share of renewable raw materials in the value chain, thus contributing to the transition to a circular economy.

BASF's market position and main competitors

The Intermediates division holds one of the top three market positions in all strategic business areas in which it is active.

The main competitors (alphabetical order) include Dairen, Dow, Eastman, Huntsman, Luxi, LyondellBasell and Wanhua.

Focus of research and development

The main aim of process innovation is to optimize existing production technologies and develop new, highly efficient processes that offer significant sustainability contributions and cost benefits.

Key capabilities of BASF

- World-scale plants based on leading process technology
- Competitive raw material sourcing and/or backward integration
- Operational, logistical as well as commercial excellence
- Strong market position with regional setup

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Alkylethanolamines	Capacity expansion in Antwerp, Belgium	2024
<i>tert</i> -Butylamine	Capacity expansion in Nanjing, China	2021
Chlorofomates/acid chlorides	Modernization in Ludwigshafen, Germany	2025
2-Ethylhexanoic acid	Capacity expansion in Kuantan, Malaysia ¹	2024
2-Mercaptoethanol	Capacity expansion in Ludwigshafen, Germany	2021
Neopentyl glycol	New plant in Zhanjiang, China	2025
Propionic acid/ethanolamines/ethyleneamines	Capacity expansion in Nanjing, China ²	2023

¹ Operated in a fully consolidated joint venture with PETRONAS Chemicals Group Berhad
² Operated in a joint venture with Sinopec; the startup of the plant expansions for ethanolamines and ethyleneamines took place in early 2024.

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
1,4-Butanediol	Closure of production line in Kuantan, Malaysia	2021

Major nameplate capacities of BASF¹

Thousand metric tons per year

Product group	Capacity
Alkylamines	250
Butanediol equivalents	550
Ethanolamines and derivatives	530
Formic acid	305
Neopentyl glycol (Neol®)	255
PolyTHF®	350
Propionic acid	220
Specialty amines	~100

¹ All capacities are included at 100%, including plants belonging to joint operations and joint ventures.

Materials

The Materials segment comprises the Performance Materials and Monomers divisions. The segment's portfolio includes advanced materials and their precursors for new applications and systems such as isocyanates, polyamides and inorganic basic products as well as specialties for the plastics and plastics processing industries. We differentiate ourselves through specific technology expertise, industry knowledge and customer proximity, and create maximum value in the isocyanate and polyamide value chains.

Divisions

Performance Materials

Polyurethanes, thermoplastic polyurethanes, engineering plastics and foam specialties for sectors such as the transportation, construction and consumer goods industries, as well as for industrial applications

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Monomers

Isocyanates and polyamides as well as inorganic basic products and specialties for various industries, including plastics, automotive and construction

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Crash absorber made from alternative raw materials

Together with Mercedes-Benz AG, we have developed the crash absorber for the Mercedes-Benz S-Class, a safety-relevant part, which combines alternative raw materials using the mass balance approach. Pyrolysis oil from used tires and biomethane from agricultural waste replace fossil raw materials without compromising on quality. We want to continue to drive forward circular solutions in the automotive industry and support our customers in achieving their sustainability goals. The Performance Materials division is aiming to increase the proportion of plastics based on alternative raw materials in its global sales to 20% by 2030.

 For more information on BASF's sustainable plastics solutions for the automotive industry, see basf.com/en/plastics

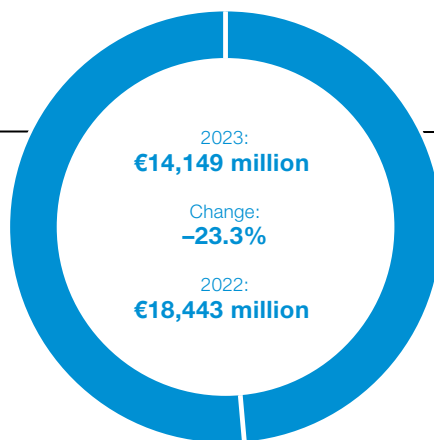
Ultramid® B3WG6 BC64 is used for the crash absorber for the Mercedes-Benz S-Class

Materials

Sales

€7,244 million

Performance Materials
Change: -15.4%
Share of sales: 51.2%



€6,905 million

Monomers
Change: -30.1%
Share of sales: 48.8%

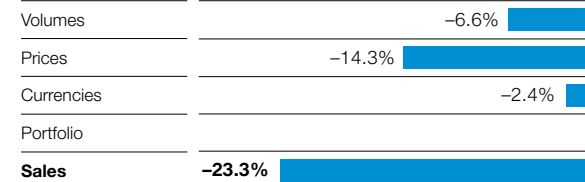
Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	14,149	18,443	15,214	10,736	11,466
Share of total BASF sales	% 20.5	21.1	19.4	18.2	19.3
of which Performance Materials	7,244	8,567	7,292	5,635	6,064
Monomers	6,905	9,877	7,922	5,101	5,402
Income from operations before depreciation, amortization and special items	1,650	2,686	3,208	1,714	1,719
EBITDA margin before special items	% 11.7	14.6	21.1	16.0	15.0
Income from operations before depreciation and amortization (EBITDA)	1,523	2,660	3,162	1,556	1,691
EBITDA margin	% 10.8	14.4	20.8	14.5	14.7
Income from operations (EBIT) before special items	826	1,840	2,418	835	1,003
Income from operations (EBIT)	378	1,776	2,345	-109	973
Segment cash flow	1,369	2,363	-	-	-
Return on capital employed (ROCE)	% 3.6	14.9	22.8	-1.1	10.7

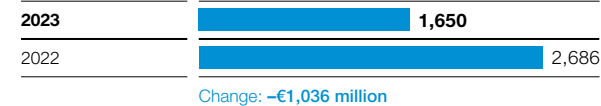
Factors influencing sales

2023 versus 2022



EBITDA before special items

Million €



Performance Materials

The Performance Materials division is at the forefront of the much-needed sustainability transformation in plastics. Our experts co-create products with customers to bring innovations to major industry sectors such as transportation, consumer goods, industrial applications and construction. These solutions contribute to a sustainable future by pushing the boundaries in thermal resistance, robustness and lightweight applications. Today, a substantial share of our portfolio is already available with significantly lower or even net-zero carbon footprints, and we aim to increase the proportion of plastics based on alternative raw materials in our global sales to 20% by 2030.

Portfolio

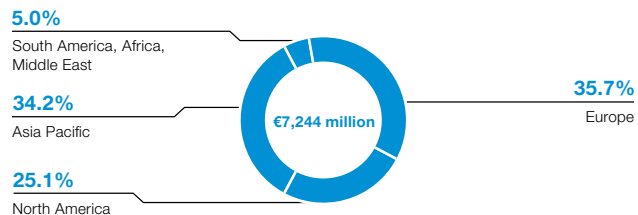
Engineering plastics

Engineering plastics are used in numerous applications, such as automotive engineering, the electrical and electronics sectors, household appliances and precision technology as well as in medical technology. This product group includes Ultraform® based on polyoxymethylene (POM), Ultradur® based on polybutylene terephthalate (PBT) and Ultramid® based on polyamide (PA) and polyphthalamide (PPA).

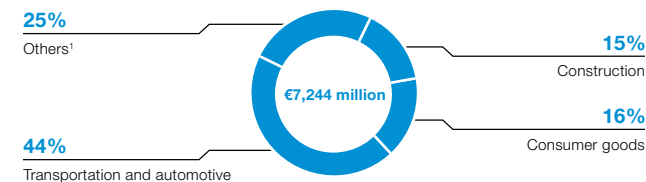
Functional foams

Basotect® is a flexible open-cell functional foam made from melamine resin that is used for sound and thermal insulation in the construction and transportation industries and as a cleaning sponge in the consumer industry.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



¹ Others includes customer industries such as electronics and electric, new energy as well as the distribution business.

Polyurethanes

Polyurethane solutions make life more comfortable, safer and more pleasant, while helping to save energy. They contribute toward improved insulation of buildings and household appliances, lightweight design of cars and other consumer products. Several industry fields use the unique advantages of polyurethanes provided with the knowledge and experience of BASF's polyurethane experts worldwide. This product group includes PU (polyurethane) systems, TPU (thermoplastic polyurethanes) and MPU (microcellular polyurethane or Cellasto®) technologies.

Specialty plastics

Specialty plastics include certified compostable and soil-biodegradable biopolymers, mainly used in various packaging applications and sold under the ecoflex® and ecovio® brands, as well as Ultrason®, a high-temperature plastic based on polyarylethersulfone (PPSU, PSU, PESU) mainly used for water filtration and household applications.

BASF's market position and main competitors

The Performance Materials division holds one of the top three market positions in almost all strategic business areas in which it is active.

The main competitors (alphabetical order) include Celanese, Covestro, Dow, Envalior, Huntsman, Kingfa, Polyplastics, Solvay and Wanhua.

Focus of research and development

Our focus is on all stages of the plastics journey: make, use and recycle. The make phase is about improving how plastics are made, from smarter product design to the choice of raw materials and the manufacturing process itself. In the use phase, we improve plastics' strengths such as light weight, robustness and thermal resistance. At the end of the product lifecycle, the recycle phase looks at how we can close the loop to achieve a circular economy. We are involved in the early stage of the product development and design in order to help our customers transform toward CO₂ neutrality.

Key capabilities of BASF

- Close collaboration with key customers in target industries worldwide
- Innovation in products, applications, processes and business models
- Technical, engineering and application competence
- Operational excellence ensuring reliability and consistent quality

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Engineering plastics	New Ultramid® (PA) and Ultradur® (PBT) plants in Zhanjiang, China	2022
	Expansion of Ultramid® (PA) capacity in Gujarat, India	2022
	Expansion of Ultramid® (PA) and Ultradur® (PBT) in Pasir Gudang, Malaysia	2023
Polyurethanes	New TPU plant in Zhanjiang, China	2023

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Engineering plastics	Closure of Ultramid® compounding site in Leuna, Germany	2022
Functional foams	Sale of Neopolen® business to Knauf Industries	2023

Major nameplate capacities of BASF¹

Thousand metric tons per year

Product group	Capacity
Engineering plastics	905

¹ All capacities are included at 100%, including plants belonging to joint operations and joint ventures.

Innovation example



Ultrsim® celebrates 25 years as a pioneer in material simulation

Powered by unique and ultra-fast simulation methods, extensive material data, and easy-to-access web services, BASF's computer-aided engineering (CAE) competence Ultrsim® creates an unparalleled offering. As a pioneer in the field, BASF introduced its first integrative simulation capability in 1999, laying the foundation for what is today a strong global network. In 2024, Ultrsim® celebrates 25 years of helping customers use BASF plastics and foams to develop sustainable innovations in industries ranging from automotive to appliances, footwear, furniture and more.

Discover more at www.ultrsim.basf.com

Monomers

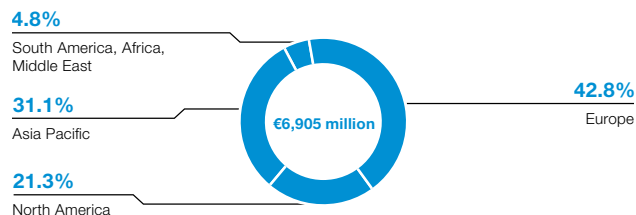
The Monomers division supplies a broad portfolio of large-volume monomers, basic polymers and inorganic chemicals. Major products include MDI (methylene diphenyl diisocyanate), TDI (toluene diisocyanate), propylene oxide, caprolactam, adipic acid, hexamethylenediamine, ammonia, polyamide 6 and 6.6, nitric acid, sulfur and chlorine products, inorganic salts, urea, glues and impregnating resins. The products are used in a broad spectrum of industries, such as automotive, furniture, construction, woodworking, food, pharmaceuticals, feed, solar, packaging and textiles. The division is in a key position to drive the sustainable transformation of these industries. It is therefore expanding its portfolio of products with a lower CO₂ footprint and is committed to providing a circular or a low product carbon footprint (PCF) option in every major product line by 2025.

Portfolio

Glues and impregnating resins

BASF, the inventor of Kaurit® and Kauramin® glues, is the number one producer and seller of glues and impregnating resins for different types of panel boards and laminated flooring. The portfolio encompasses liquid and powder glues specifically developed to produce a broad range of wood-based materials that meet low-emission standards. Powder glues are also used in other industries, for example, to produce clutch linings in vehicles. BASF's impregnating resins have been designed for the treatment of various papers, including overlay, counterbalance and decor papers for the flooring or furniture industry. Additionally, BASF produces AdBlue®, a high-purity urea solution that is used in trucks and passenger cars to reduce NO_x emissions from diesel engines.

Sales by region 2023 (location of customer)



Inorganic chemicals

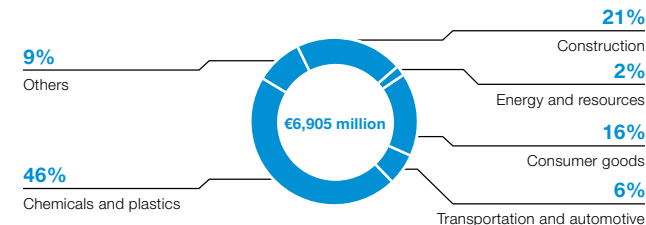
Inorganic chemicals are mainly used as precursors for plastics, amines and other high-value chemicals. The product portfolio ranges from basic chemicals to inorganic salts and includes ammonia, ammonium salts, caustic soda, chlorine, nitric acid, standard alcoholates and sulfuric acid.

More than half of these products are for captive use within BASF's Verbund. The remaining products are sold primarily to other chemical companies. We are also one of the leading suppliers of sodium nitrate (used as a component for storage media in solar thermal power plants), sodium methylate (a catalyst used for the production of biodiesel) and a variety of inorganic salts for different industries such as food, feed, textiles and paper.

Isocyanates and propylene oxide

The portfolio of isocyanates consists of MDI and TDI. BASF is a world leader in isocyanates, which are key components to produce soft or rigid foams. MDI is a versatile isocyanate that can be used to make flexible foams as well as semi-rigid and rigid polyurethane plastics. Its primary applications are construction, consumer appliances, automotive components and shoe soles. TDI is an isocyanate used primarily in the manufacturing of flexible foams. Its main applications include mattresses and cushions for furniture and automotive seating.

Sales by direct customer industry 2023



Propylene oxide is the main raw material for polyether polyols. Polyols are – together with isocyanates – the second key component for polyurethane foams. Other applications for propylene oxide are propylene glycols, surfactants and amines.

Polyamides and precursors

BASF is the world's leading supplier of high-quality polyamides, with the trade name Ultramid®, and polyamide precursors such as caprolactam, hexamethylenediamine (HMD) or adipic acid. BASF started manufacturing Ultramid® polyamides over 50 years ago. Today, BASF offers a wide product range of polyamides for injection molding and extrusion. The product range includes PA 6 grades (Ultramid® B), PA 6.6 grades (Ultramid® A), special grades based on copolyamides (Ultramid® C) as well as Ultramid® Ccycled®, which is produced using recycled plastic waste or end-of-life tires and bio-mass-balanced Ultramid® derived from renewable raw materials.

Polyamides from BASF are the materials of choice for many applications:

- Engineering plastics: Ultramid® is used to produce molding compounds. Due to their outstanding properties, these materials have become indispensable in almost all fields of engineering for the most varied components and machine parts for the automotive industry, as high-quality electrical insulating materials and for many special applications.

- Films for food packaging: Ultramid® is especially well-suited for the packaging sector due to its high strength, outstanding thermoformability, high thermal stability and very good barrier properties toward gases, especially oxygen, flavors and aromas.
- Textiles: With loopamid®, BASF offers the first polyamide 6 that is entirely made from textile waste, thus closing the loop for nylon garments. The variety of Ultramid® grades for textiles enables the manufacturing of superior quality textiles for hosiery, swimwear and high-tech outdoor garments as well as high-end polyamide carpets and technical fiber applications.

BASF's market position and main competitors

The Monomers division holds one of the top three market positions in around three-quarters of the strategic business areas in which it is active.

The main competitors (alphabetical order) include AdvanSix, Ascend, Covestro, Dow, Envalior, Huntsman, Ube and Wanhua.

Focus of research and development

R&D efforts are focused on process innovation to optimize our large asset base as well as the development of new products and applications to support the division's sustainability goals.

Key capabilities of BASF

- World-scale plants based on leading process technology
- Competitive raw material sourcing and/or backward integration
- Operational, logistical as well as commercial excellence
- Strong market position with regional setup

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
HMD	New world-scale plant in Chalampé, France	2024
MDI	Expansion of production in Geismar, Louisiana (staggered investment approach)	2020–2025

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Adipic acid value chain	Partial closure of the adipic acid plant; closure of the plant for the precursors cyclohexanol and cyclohexanone, and the soda ash plant in Ludwigshafen, Germany	2023-2026
Ammonia value chain	Closure of one of two ammonia plants, the melamine plant and the ammonium sulfate nitrate fertilizer plant in Ludwigshafen, Germany	2023
	Closure of the caprolactam plant in Ludwigshafen, Germany	2023-2026
TDI	Closure of the TDI complex in Ludwigshafen, Germany	2023

Major nameplate capacities of BASF¹

Thousand metric tons per year

Product group	Capacity
Adipic acid	620
Ammonia	1,370
Caprolactam	600
Chlorine	595
Isocyanates	2,400
Polyamides 6 and 6.6	885
Propylene oxide	675
Sulfuric acid	920
Urea	545

¹ All capacities are included at 100%, including plants belonging to joint operations and joint ventures.

Innovation example



loopamid® – the first circular nylon 6 entirely based on textile waste

With loopamid®, BASF has developed an innovative solution to improve circularity in the fashion industry by recycling polyamide 6 textile waste. Because it tolerates all fabric mixtures like PA6 and elastane, the cutting-edge technology behind loopamid® allows textile-to-textile recycling of post-industrial and post-consumer textile waste, thereby closing the loop for nylon apparel. The fibers and materials can be recycled over multiple cycles. At the same time, the material characteristics are identical to those of conventional virgin polyamide.

[Discover more at www.loopamid.com](https://www.loopamid.com)

Industrial Solutions

The Industrial Solutions segment consists of the Dispersions & Resins and the Performance Chemicals divisions. It develops and markets ingredients and additives for industrial applications, such as polymer dispersions, resins, electronic materials and antioxidants. We aim to grow organically in key industries such as automotive, plastics, paints and coatings, electronics, and energy and resources. We want to expand our position by leveraging our comprehensive industry expertise and application know-how.

Divisions

Dispersions & Resins

Raw materials used to formulate products in the coatings, construction, paper, printing and packaging, adhesives and electronics industries

 page 46

Performance Chemicals

Customized products for various customer industries such as chemicals, plastics, consumer goods, energy and resources, as well as automotive and transportation

 page 48



A new material for electric mobility

With its new Licity[®] anode binder product range for lithium-ion battery manufacture, BASF is paving the way for electric mobility. Licity[®] anode binders are materials that improve battery performance, enabling a higher capacity, an increased number of charge and discharge cycles and reduced charging times. This is a new binder technology that pushes the capabilities of lithium-ion batteries, thus supporting the wider adoption of electric vehicles. BASF aims to achieve net sales of more than €30 million in 2027 with this product.

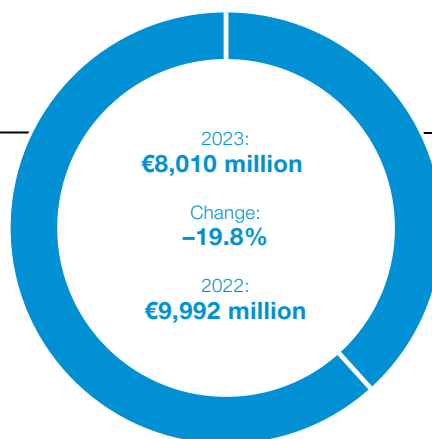
 For more information on Licity[®], see [basf.com/licity](https://www.basf.com/licity)

Industrial Solutions

Sales

€4,921 million

Dispersions & Resins
Change: -18.2%
Share of sales: 61.4%



€3,088 million

Performance Chemicals
Change: -22.3%
Share of sales: 38.6%

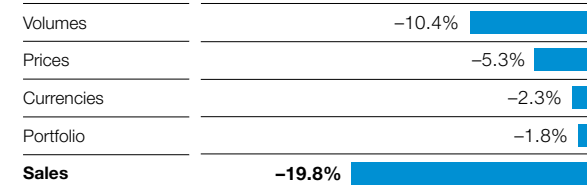
Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	8,010	9,992	8,876	7,644	8,389
Share of total BASF sales	% 11.6	11.4	11.3	12.9	14.1
of which Dispersions & Resins	4,921	6,019	5,681	4,869	5,178
Performance Chemicals	3,088	3,973	3,195	2,775	3,211
Income from operations before depreciation, amortization and special items	965	1,437	1,343	1,189	1,249
EBITDA margin before special items	% 12.0	14.4	15.1	15.6	14.9
Income from operations before depreciation and amortization (EBITDA)	1,010	1,443	1,344	1,099	1,327
EBITDA margin	% 12.6	14.4	15.1	14.4	15.8
Income from operations (EBIT) before special items	625	1,091	1,006	822	820
Income from operations (EBIT)	660	1,097	965	630	889
Segment cash flow	1,292	852	-	-	-
ROCE	% 11.0	16.0	15.2	9.3	12.5

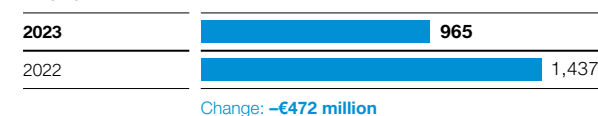
Factors influencing sales

2023 versus 2022



EBITDA before special items

Million €



Dispersions & Resins

The Dispersions & Resins division is the leading global supplier of raw materials used in formulations for a number of industries, including coatings, construction, paper, printing and packaging, adhesives and electronics. Our portfolio encompasses dispersions, resins and a broad range of additives, such as performance and formulation additives as well as electronic materials. We put a strong emphasis on environmentally friendly systems, such as low-VOC (volatile organic compound) water-based coatings.

Portfolio

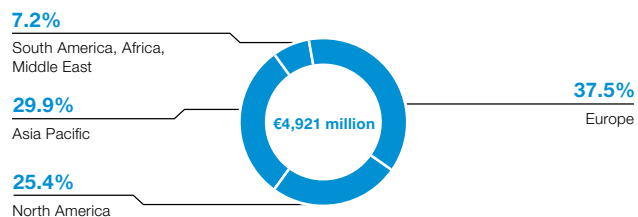
Additives

BASF offers a broad range of performance and formulation additives that significantly improve the quality and performance of paints and coatings. We are a market leader for performance additives, particularly in light stabilizers. Light stabilizers protect paint films against degradation and several undesirable effects, including changes in appearance from long-term exposure to UV radiation. Our formulation additives offer solutions in the range of defoamers, dispersing agents, film-forming agents, rheology modifiers as well as wetting agents and surface modifiers to improve the properties of coatings. Our unique portfolio is based on a broad technology platform and helps performance-driven products meet the latest and most stringent environmental regulations.

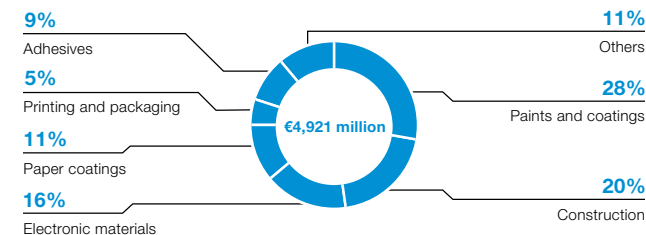
Dispersions

Polymer dispersions are water-based systems used in formulations for adhesives, sealants, architectural coatings, paper coatings, construction and fiber bonding materials. Our strength lies in our backward integration into acrylics, strong technical expertise and application know-how. In addition, our worldwide presence is a key advantage in serving our global customer base.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



Electronic materials

BASF delivers fully customized solutions for next-generation semiconductor and display manufacturing processes and metal systems. Our portfolio includes ultra-pure process chemicals, advanced materials for semiconductor manufacturing, high-end formulations for displays as well as products for injection molding and metal systems. We provide reliable services and innovative solutions to customers in the fast-paced electronics industry.

Resins

Resins are film-forming components used in industrial, automotive and wood coatings as well as in printing and packaging for ink formulations and barrier coatings. The product portfolio includes water-based resins, acrylic oligomers, polyisocyanates, amino resins, aldehyde resins and high-solid polyols. Our portfolio offers customers a wide range of water-based technologies that fulfill regulatory requirements regarding volatile organic compounds.

BASF's market position and main competitors

The Dispersions & Resins division holds one of the top three market positions in more than 80% of the strategic business areas in which it is active.

The main competitors (alphabetical order) include Allnex, Altana, Covestro, Dow, DuPont, Entegris, Evonik, Merck, Synthomer and Trinseo.

Focus of research and development

We invest in research and development to create innovative, differentiating and more sustainable products and solutions. Our innovations allow our customers to offer environmentally friendly solutions with dispersions for applications in the coatings, printing, adhesives and construction industries. In addition, customers benefit from new and improved resins and formulation additives, which enable them to upgrade the performance of their product portfolio. In electronic materials, the focus is on developing innovative solutions for the electronics industries, for example, for semiconductors. We advance digital and automation solutions in our laboratory environment to optimize our efficiency.

Innovation example



© Getty Images

High-performance colorants for decorative paints

BASF is offering a newly reformulated range of 16 high-performance colorants – aqueous pigment dispersions used for tinting DIY architectural paints at the point of sale. The new colorants considerably reduce surfactant leaching and surface tackiness of tinted paints, without reducing paint viscosity. Moreover, they have significantly lower VOC emissions and a reduced carbon footprint, making them a great addition to BASF's portfolio of Sustainable-Future Solutions (see page 17).

Key capabilities of BASF

- Leading technology and cost position enable consistent product quality, reliability and competitiveness
- Comprehensive portfolio of raw materials for coatings, printing and packaging inks, adhesives and construction materials
- Strong technical and application know-how, professional service, close to our customers
- Key chemical materials enabler for the semiconductor industry
- Global production footprint close to relevant markets

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Additives	Capacity expansion in Dilovasi, Turkey	2023
Dispersions	Capacity expansion in Pasir Gudang, Malaysia	2021
	Capacity expansion in Dahej, India	2022
	Capacity expansion in Merak, Indonesia	2023
	Production line optimization in Huizhou and Zhenjian, China	2023
	Capacity expansion in Huizhou, China	2024
Electronic materials	Capacity expansion in Jiaxing, China	2023
Resins	New plant in Mangalore, India	2023

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Additives	Divestiture of plant in Quincy, Florida	2022
Pigments	Divestiture of the pigments business	2021
Resins and additives	Closure of plant in West Memphis, Arkansas	2021

Major production sites

BASF's dispersions, resins, additives and electronic materials are produced at more than 60 sites worldwide. Our most important sites for each product group are listed below.

Product group	Site
Additives	Appleton, Wisconsin; Heerenveen, Netherlands; Nanjing, China; Schweizerhalle, Switzerland
Dispersions	Cengkareng, Indonesia; Chattanooga, Tennessee; Dagang, Huizhou and Shanghai, China; Dahej, India; Freeport, Texas; Guaratinguetá, Brazil; Hamina, Finland; Ludwigshafen, Germany; Mangalore, India; Monaca, Pennsylvania; Pasir Gudang, Malaysia; Tarragona, Spain
Electronic materials	Jiaxing, China; Kuan Yin and Taichung, Taiwan; Ludwigshafen, Germany; Schweizerhalle, Switzerland; Singapore; Yeosu, South Korea
Resins	Heerenveen, Netherlands; Ludwigshafen and Schwarzheide, Germany; Shanghai, China; Wyandotte, Michigan

Performance Chemicals

As an innovative partner, the Performance Chemicals division offers chemicals for various customer industries such as plastics, automotive, refineries, lubricants, oilfield and mining. Our highly qualified and experienced team has outstanding market knowledge. Together with our innovation platform and application know-how, this ensures BASF's technological competence and allows us to provide our customers with excellent solutions.

Portfolio

Fuel and lubricant solutions

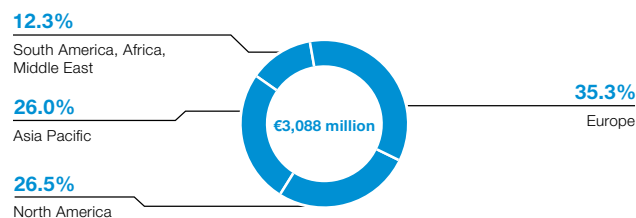
BASF is one of the leading suppliers of formulations and components for the global automotive and mineral oil industries. Our portfolio includes:

- Brake fluids and engine coolants
- Fuel additives, lubricant additives and additive packages, base stocks, lubricants
- Low, medium and high molecular weight polyisobutene (PIB)

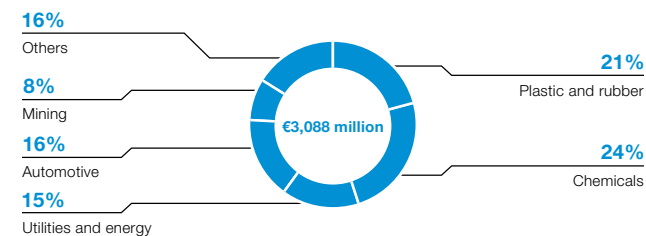
Mining solutions

BASF's mining solutions business offers a diverse range of mineral processing and hydrometallurgical chemistries and technologies to improve process efficiencies and the economic extraction of valuable resources. Our offer includes reagents and process technologies focusing on applications such as solid/liquid separation, leaching, solvent extraction, tailings management, flotation, materials handling and grinding.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



Oilfield chemicals

Based on industry-leading technical expertise, we offer a wide range of sustainable solutions and high-quality products that help our customers develop efficient formulations for the oil and gas industry. Our product portfolio includes:

- Chemicals for drilling, cementing and stimulation for the completion of production wells
- Additives for continuous and cost-efficient production of oil and gas
- Next-generation surfactants and polymers designed to support enhanced oil recovery (EOR) operations

Plastic additives

BASF is the globally leading supplier for stabilizers and additive blends to the plastics and rubber industries. The product range includes high-performance light and thermal stabilizers, antioxidants, process stabilizers, UV absorbers and other specialty additives for those industries. We continuously analyze, assess and actively improve our portfolio toward solutions which make a larger contribution to sustainability. The main fields of application are:

- Automotive
- Agricultural films
- Construction materials
- Electrical and electronics
- Fibers and tapes
- Mechanical recycling
- Packaging and consumer goods

BASF's market position and main competitors

The Performance Chemicals division holds one of the top three market positions in around three-quarters of the strategic business areas in which it is active.

The main competitors (alphabetical order) include Adeka, Afton, ChampionX, Clariant, ExxonMobil, Lanxess, Lubrizol, Sabo, Solvay and Songwon.

Focus of research and development

Developing solutions together with our customers and ensuring technology leadership to improve our cost position are crucial to the success of Performance Chemicals. By leveraging the breadth of our competencies, we develop products that help improve the performance of our customers' products and processes. We utilize advances in data analytics, modelling and automation to accelerate development and enable faster implementation of innovations. With sustainability as a key growth driver for our businesses, we focus our innovation pipeline on solutions that will enable the transformations in the end markets. Important fields are resource efficiency, emissions reduction and the circular economy.

Key capabilities of BASF

- Industry-leading innovation platform and application know-how
- Customer proximity and market focus
- Technological competence to provide excellent solutions to our customers
- Continuous improvements in cost competitiveness in production

Major production sites

Product group	Site
Fuel and lubricant solutions	Antwerp, Belgium; Cincinnati, Ohio; Dahej, India; Geismar, Louisiana; Guaratinguetá, Brazil; Kaisten, Switzerland; Kuantan, Malaysia; Lampertheim and Ludwigshafen, Germany; McIntosh, Alabama; Meaux, France; Nanjing and Shanghai, China; Puebla, Mexico; Singapore
Mining solutions	Cork, Ireland; Jacarei, Brazil; Ludwigshafen, Germany; Nanjing, China
Oilfield chemicals	Lerma, Mexico; Tarragona, Spain; Trostberg, Germany
Plastic additives	Kaisten, Switzerland; Lampertheim, Germany; Manama, Bahrain; McIntosh, Alabama; Pontecchio Marconi, Italy; Puebla, Mexico; Shanghai, China; Singapore

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Fuel and lubricant solutions	Capacity expansion for synthetic ester base stocks in Jinshan, China	2022
	New fuel performance additives plant in Shanghai, China	2022
Plastic additives	Capacity expansion for antioxidants in Pontecchio Marconi, Italy	2021
	Capacity expansion for Irganox® 1010 in Singapore	2022
	Capacity expansion for hindered amine light stabilizers (HALS) in Pontecchio Marconi, Italy, and Lampertheim, Germany	2024

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Kaolin minerals business	Sale of kaolin minerals business to KaMin LLC. / CADAM S.A. (KaMin)	2022

Innovation example



Additive provides extended greenhouse film durability

BASF's additive Tinuvin® NOR® 356 protects agricultural plastics from light and thermal damage. It can extend greenhouse film durability by up to 60%, resulting in significant material and cost savings for farmers. Because of the finished product's high resistance to crop treatments specific to organic farming in combination with excellent optical properties, farmers can increase their crop yield by over 7%, depending on the conditions.

Surface Technologies

The Surface Technologies segment comprises the Catalysts and Coatings divisions, which offer chemical solutions for surfaces. Its portfolio serves industries such as the automotive, aerospace and chemical sectors and includes automotive OEM and refinish coatings, surface treatment, catalysts, battery materials, and precious and base metal services. We improve our customers' applications and processes with tailored products, technologies and solutions, and support them through geographical proximity across all regions. The aim is to drive BASF's growth by leveraging our portfolio of technologies and expanding our position as a leading and innovative provider of battery materials and surface coatings solutions.

Divisions

Catalysts

Mobile emissions catalysts, chemical catalysts and adsorbents, refining catalysts, battery materials, precious and base metal products and services, precious metal trading, metals recycling, clean air technologies

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Coatings

Automotive OEM coatings, automotive refinish coatings and services, decorative paints, surface-applied treatments for metal, plastic and glass substrates for a wide range of industries

 page 54



An innovative surface film for aviation

With NovaFlex Sharkskin, BASF has developed a surface film that mimics the fine structure of a shark's skin. The film optimizes the aerodynamics on flow-related parts of the aircraft, meaning that less fuel is needed and CO₂ emissions are reduced. Applying NovaFlex SharkSkin film to a Boeing 777-300 reduces the aerodynamic drag by more than 1%, avoiding 1,250 metric tons of CO₂ per aircraft per year. Using the technology at its highest expansion level could reduce CO₂ emissions by as much as 3%.

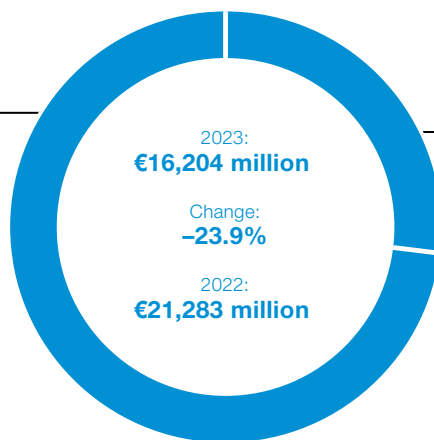
 For more information on NovaFlex SharkSkin, see basf.com/sharkskin

Surface Technologies

Sales

€11,818 million

Catalysts
Change: -30.7%
Share of sales: 72.9%



€4,387 million

Coatings
Change: 3.9%
Share of sales: 27.1%

Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	16,204	21,283	22,659	16,659	13,142
Adjusted sales to third parties ¹	8,626	8,947	6,933	-	-
Share of total BASF sales	% 23.5	24.4	28.8	28.2	22.2
of which Catalysts	11,818	17,062	19,219	13,570	9,396
Coatings	4,387	4,220	3,440	3,089	3,746
Income from operations before depreciation, amortization and special items	1,520	1,464	1,277	966	1,173
EBITDA margin before special items	% 9.4	6.9	5.6	5.8	-
Adjusted EBITDA margin before special items ¹	% 17.6	16.4	18.4	-	-
Income from operations before depreciation and amortization (EBITDA)	1,351	1,264	1,243	900	1,120
EBITDA margin	% 8.3	5.9	5.5	5.4	8.5
Income from operations (EBIT) before special items	938	902	800	484	722
Income from operations (EBIT)	366	612	761	-587	663
Segment cash flow	1,488	61	-	-	-
Return on capital employed (ROCE)	% 2.7	3.9	5.6	-4.8	5.7

¹ Adjusted figures excluding sales in precious metal trading and precious metal sales in the automotive catalysts business have been reported since 2021.

Factors influencing sales

2023 versus 2022

Volumes ²	-9.6%
Prices	-11.1%
Currencies	-3.1%
Portfolio	-0.1%
Sales	-23.9%

² Adjusted figure excluding sales in precious metal trading and precious metal sales in the automotive catalysts business: -1.4%

EBITDA before special items

Million €

2023	1,520
2022	1,464

Change: €56 million

Catalysts

BASF's Catalysts division is the global market leader in catalyst technologies. The division develops and produces process catalysts and battery materials, and offers base metals sourcing, recycling and management services. It is also the home of BASF's Environmental Catalyst and Metal Solutions (ECMS) standalone entity, comprising mobile emissions catalysts and precious metals trading, recycling, and related products and services. BASF expands its leading role in both catalysts and battery materials through continuous process and product innovation.

Portfolio

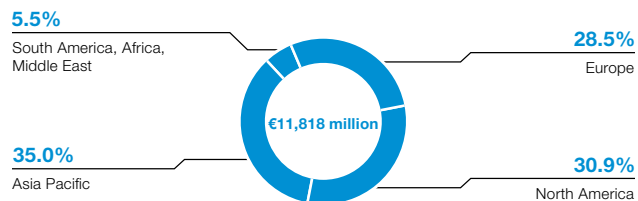
Battery base metals and precursor cathode active materials (PCAM)

This global business unit supports the battery materials business and its customers with services related to base metals sourcing and management. BASF also provides a variety of pricing and delivery arrangements to meet logistical, financial and price-risk management requirements. Moreover, BASF ensures a sustainable and reliable supply chain for metals used in PCAM, starting with the refining of metal ores. Our customized PCAM development ensures maximum CAM performance, for example, in terms of driving range, charging time and safety of the battery.

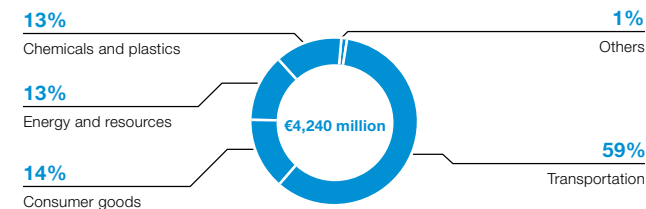
Battery recycling

In addition, BASF offers battery recycling solutions and services for its customers in the e-mobility value chain. Battery producers and electric vehicle manufacturers can choose from a range of individual services along the battery value chain. Moreover, BASF also offers end-to-end support for OEMs, ensuring a one-stop-shop experience to meet our customers' battery recycling needs.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023¹



¹ Excluding sales of €7,578 million in precious metal trading and precious metal sales in the automotive catalyst business

Cathode active materials (CAM)

BASF is a leading global supplier of advanced CAM for the lithium-ion batteries market, providing high-performance CAM to the world's largest cell producers and for leading platforms of OEMs. BASF has a global presence with R&D and production capacity in all regions, in some cases leveraging partnerships. BASF is a front-runner in developing innovative solutions and conducting next-generation battery materials research.

Environmental Catalyst and Metal Solutions (ECMS)

BASF Environmental Catalyst and Metal Solutions is a standalone entity within BASF Group. It comprises two business units – mobile emissions catalysts and precious metal services and recycling.

The mobile emissions catalysts unit enables cost-effective regulatory compliance, providing technologies that control emissions from gasoline and diesel-powered passenger cars, trucks, buses, off-road vehicles and motorcycles. The unit also offers technologies to improve indoor air quality and cabin air in airplanes.

The precious metal services and recycling unit has in-depth knowledge and vast experience in the field of metals management, offering industrial customers a full loop of services from precious metal supply and recycling to financial risk management. The unit also produces precious metal chemicals, temperature-sensing thermocouple and optical technologies, and is expanding its capabilities and footprint in PEM (proton exchange membrane) electrolyzer and fuel cell technologies to support customers.

Process catalysts

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts and adsorbents, refinery catalysts and custom catalysts.

Innovation example



X3D™ technology improves performance and sustainability

The novel X3D™ technology enables the production of catalysts with optimal shape to achieve best performance and efficiency while reducing energy consumption. Catalysts produced with this technology feature an open structure, resulting in a reduction of the pressure drop across the reactor and a high surface area, significantly improving the catalysts' performance. The technology offers a greater freedom of catalyst design compared to conventional production technologies. It brings catalysts' performance to the next level and helps to customize catalysts to customers' specific conditions and needs by designing infill patterns, fiber diameter and orientation. Customers can benefit from an increased reactor output, higher product quality and lower energy consumption, enabling significantly higher sustainability. The technology can be applied to a wide variety of existing catalytic materials, including base or precious metal catalysts as well as carrier materials. The novel catalysts are mechanically robust and proven in several commercial plant operations.

BASF's market position and main competitors

The Catalysts division holds one of the top three market positions in all strategic business areas in which it is active.

The main competitors (alphabetical order) include Albemarle, Clariant, Easpring, Ecopro, Johnson Matthey, Umicore and W.R. Grace.

Focus of research and development

For battery materials, the focus is on offering a comprehensive product portfolio meeting customers' requirements for e-mobility applications in all segments, including improving energy density to extend driving range as well as stability, safety and cost. For mobile emissions catalysts, the focus is on improved products to meet future vehicle emission standards. Precious metal services and recycling is developing next-generation electrocatalysts and catalyst coated membranes to improve performance and reduce cost for PEM electrolyzers and fuel cells. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry's transformation to net-zero emissions.

Key capabilities of BASF

- Global R&D footprint covering catalysts and battery materials
- Technology leadership in mobile emissions catalysts, process catalysts and battery materials
- Recognized precious metals expertise
- Strong and growing position in Asia through fully owned entities and joint ventures
- Operational excellence in catalyst and battery materials production and use

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Battery materials	BASF and Shanshan formed joint venture (BASF 51%) for CAM and PCAM production in China	2021
	CAM capacity expansion for the joint venture BASF Shanshan in Chansha, China	2023
	PCAM manufacturing plant in Harjavalta, Finland	_ 1
	CAM manufacturing plant in Schwarzheide, Germany	2023
	Battery recycling prototype plant in Schwarzheide, Germany	2024
Mobile emissions catalysts	CAM capacity expansion for the joint venture BASF TODA in Onoda, Japan	2024
	Black mass recycling plant in Schwarzheide, Germany	2024
	Capacity expansion in Chennai, India	2022
	Acquisition of Zodiac Enterprises LLC assets in Caldwell, Texas, for catalyst recycling	2021
Precious metal services	Refinery capacity expansion in Seneca, South Carolina	2022
	BASF HERAEUS (China) Metal Resource Co., Ltd. formed in Pinghu, China, for automotive catalyst recycling	2022
	Acquisition of Arc Metal AB in Hofors, Sweden	2024
Process catalysts	Construction of global Catalyst Development and Solids Processing Center in Ludwigshafen, Germany	2024

¹ Startup date of the plant depends on the outcome of the ongoing permitting process.

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Process catalysts	Closure of the Erie, Pennsylvania, production site	2021
	Divestiture of De Meern, Netherlands, production site to IQatlyst B.V., Luxembourg	2023

Coatings

BASF's Coatings division offers innovative and ecologically viable solutions for the automotive industry, including both the original equipment manufacturer (OEM) and refinish markets, as well as surface treatment solutions for a variety of markets. BASF also develops and markets decorative paints in Brazil for interior and exterior use in residential and commercial buildings. The portfolio is supplemented by "Beyond Paint" solutions, which enable new applications with innovative surfaces. We combine protection and aesthetics with eco-efficiency in tailor-made products and processes.

Portfolio

Automotive OEM coatings solutions

BASF provides complete automotive coatings solutions, including a product portfolio of:

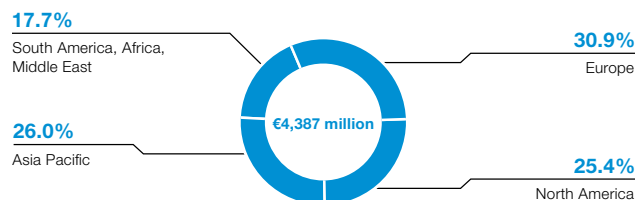
- E-coats
- Primers
- Basecoats
- Clearcoats

In addition to offering extensive technical support, BASF is a valued innovation and design partner for nearly all leading automotive manufacturers worldwide.

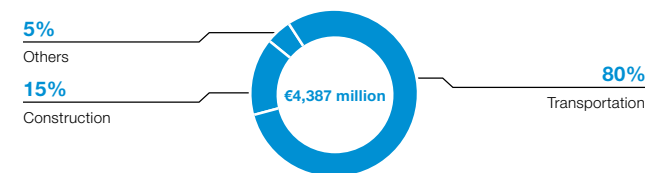
Automotive refinish coatings solutions

For the refinishing of passenger cars and trucks, BASF offers top-coat and undercoat materials sold under the global premium brands Glasurit® and R-M® as well as the value-for-money brands baslac®, LIMCO®, Norbin® and Yinfan®, which are sold to paint distributors and automotive repair shops. BASF is a leader in the fields of water-borne coatings and high-solid systems, enhanced by value-added services and tools for end users.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



Decorative paints

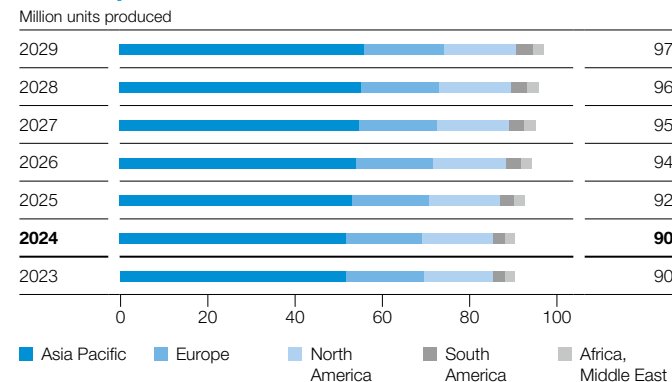
For interior and exterior use in buildings, BASF offers decorative paints, marketed, for example, under the premium brand Suviniil®, which is one of Brazil's best-known brands. With constant innovation launches, such as super-concentrated premium interior and exterior paint, Suviniil® continues to strengthen its role as a pioneer in the area of innovative paints.

Surface treatment solutions

BASF is a globally leading solution provider for applied surface treatment. Under our Chemetall brand, we offer customized technology and system solutions to protect metals from corrosion, facilitate forming and machining, allow parts to be optimally prepared for the painting process and ensure proper coating adhesion. These products are used in a wide range of industries and markets, such as automotive, aerospace, aluminum finishing and metal forming.

Automotive is the most important customer industry for BASF's coatings business. The number of cars and light commercial vehicles produced globally is expected to grow moderately. The main growth driver is Asia – in particular China – where BASF is well-positioned to participate in the growth opportunities.

Passenger car and light commercial vehicle production



Source: Global automotive production forecast May 2024 (S&P Global)

BASF's market position and main competitors

The Coatings division holds one of the top three market positions in all strategic business areas in which it is active.

The main competitors (alphabetical order) include AkzoNobel, Axalta, Henkel, Kansai Paint, Nippon Paint, PPG and Sherwin-Williams.

Focus of research and development

Our innovation efforts for the automotive industry are focused on close partnerships with our customers in order to formulate, for instance, new coatings solutions for integrated processes and unique eco-efficient coatings. Additional research topics include improved products for new technology markets, such as functional films and environmentally friendly applications.

Key capabilities of BASF

- Innovative long-term cooperation with leading OEM customers
- Technical on-site support at customer locations, creating additional value and long-term relationships
- Services and tools within the automotive industry to deal with color complexity
- Leveraging strong market position and application know-how from mature markets into growing markets
- Global production and market presence

Acquisitions/JVs/investments

from 2021 onward

Product group	Description	Year
Automotive OEM	Expansion of e-coat production in Greenville, Ohio	2022
	Upgrade of e-coat application center in Münster, Germany	2023
	Application center upgrade in Guadalajara, Spain	2023
	Site expansion in Minhang, China	2023
	Further resin capacity expansion in Caojing, China	2024
	Capacity expansion for OEM coatings in Würzburg, Germany	2025
	Construction of a production plant for more sustainable OEM coatings in Münster, Germany	2025
Refinish	New laboratory facility in Münster, Germany	2022
	Capacity expansion in Jiangmen, China	2022
	New filling and packaging lines in Münster, Germany	2023
Surface treatment	New surface treatment site in Pinghu, China	2021
	Global aluminum competence center in Giussano, Italy	2024

Major production sites

BASF Coatings manufactures its products at more than 70 sites worldwide. The most important sites are listed below.

Product group	Site
Automotive OEM	Greenville, Ohio; Guadalajara, Spain; Münster, Germany; Shanghai, China; Tultitlán, Mexico
Decorative paints	Demarchi and Jabotão, Brazil
Refinish	Clermont de l'Oise, France; Jiangmen, China; Münster, Germany; Windsor, Canada
Surface treatment	Blackman Township, Michigan; Canovelles, Spain; Çayirova-Kocaeli, Turkey; Guissano, Italy; Langelsheim, Germany; Sens, France; Pune, India; Shanghai, China

Innovation example



A smarter approach to corrosion protection

VIANT is a new coating technology that combines conversion coating and a primer paint in one single layer. It is easy to operate and enables reliable corrosion protection on edges and inner surfaces. Compared to conventional coatings, VIANT results in a shorter process chain, resource savings and reduced running costs. It reduces the carbon footprint and comes with lower electricity, water and chemical consumption.

Nutrition & Care

The Nutrition & Care segment, consisting of the Care Chemicals and Nutrition & Health divisions, serves the growing needs of food and feed producers as well as the pharmaceutical, cosmetics, detergents and cleaning industries. We offer solutions for the increasingly sophisticated demands of fast-moving consumer goods as well as for technical applications, crop protection and nutrition. We strive to expand our position as a leading provider of ingredients for consumer goods in the areas of nutrition, home and personal care. Our goal is to drive organic growth. We focus on growth markets, sustainability trends and digital business models in consumer markets.

Divisions

Care Chemicals

Ingredients for the cosmetics, detergents and cleaning industries, agrochemical and technical applications

 page 58

Nutrition & Health

Products for the food and feed industries, the flavor and fragrance industry and the pharmaceutical industry

 page 60



Two new active ingredients from one process

Probiolift™ and Postbiolift™ are two new biotic ingredients from BASF's personal care business area that support healthy skin aging. Unlike other biotics existing on the cosmetic market, the newly developed ingredients are the first to use a bacterium that is found naturally in the skin: *Lactobacillus crispatus*. One gram of Probiolift™ contains over 1 million useful bacteria. The result is a product that improves skin elasticity and reduces the appearance of wrinkles around the eyes. BASF uses an energy-efficient and more sustainable fermentation process and produces both active ingredients using an innovative process without waste.

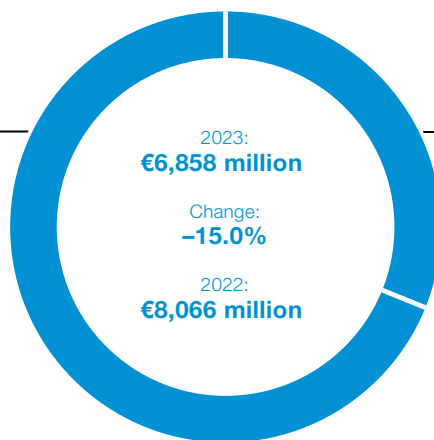
 For more information on Probiolift™ and Postbiolift™, see basf.com/probiolift

Nutrition & Care

Sales

€4,721 million

Care Chemicals
Change: -16.0%
Share of sales: 68.8%



€2,137 million

Nutrition & Health
Change: -12.7%
Share of sales: 31.2%

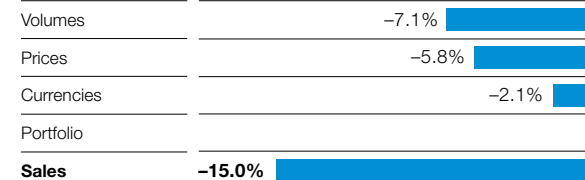
Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	6,858	8,066	6,442	6,019	6,075
Share of total BASF sales	% 10.0	9.2	8.2	10.2	10.2
of which Care Chemicals	4,721	5,619	4,439	3,989	4,118
Nutrition & Health	2,137	2,447	2,003	2,030	1,957
Income from operations before depreciation, amortization and special items	565	1,067	909	1,190	1,214
EBITDA margin before special items	% 8.2	13.2	14.2	19.8	20.0
Income from operations before depreciation and amortization (EBITDA)	578	1,055	967	1,152	1,189
EBITDA margin	% 8.4	13.1	15.0	19.1	19.6
Income from operations (EBIT) before special items	107	618	497	773	793
Income from operations (EBIT)	119	605	554	688	644
Segment cash flow	503	-99	-	-	-
Return on capital employed (ROCE)	% 1.5	7.5	8.2	10.6	10.0

Factors influencing sales

2023 versus 2022



EBITDA before special items

Million €



Care Chemicals

BASF's Care Chemicals division is a globally leading supplier to the cosmetics, detergents and cleaning industries. We also offer solutions for technical applications and crop protection. Together with our customers, we create innovative solutions to meet the current and future needs of society more sustainably. We contribute to the long-term success of our customers' brands with a broad range of products and concepts via our global network of production and development sites.

Portfolio

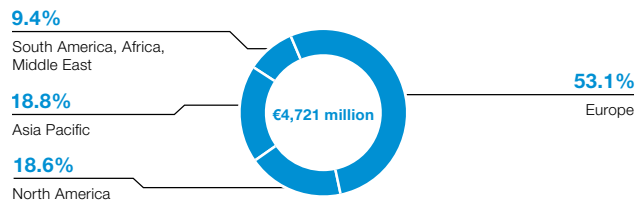
Home care and industrial & institutional cleaning

We develop, produce and market a wide range of ingredients for detergents and cleaning solutions worldwide. As the innovation leader in this market, we offer choices to our customers and provide the best-possible solutions to successfully cater to today's and tomorrow's market needs and changing regulatory requirements. Our strong R&D base and in-depth market and application expertise set us apart from the competition while making us the partner of choice for formulators of efficient, convenient, sustainable and safe-to-use detergents and other cleaning products. Our portfolio, which is constantly being further developed, includes surfactants, enzymes, water-soluble polymers, chelating agents, biocides, optical effect products, stabilizers and methanesulfonic acid.

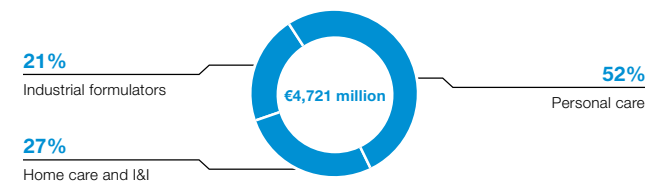
Industrial formulators

We develop and commercialize a broad portfolio of processing aids, differentiating additives and surface-active building blocks for a wide range of industrial applications and further downstream processing. With our formulation know-how and understanding of the physico-chemical properties of our products, we enable customer-specific solutions. In addition, we market an extensive portfolio of performance enhancers to crop protection and plant nutrition companies.

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



Our product portfolio includes dispersants, emulsifiers, surface modifiers, solvents, chelating agents, biocides, micronutrients and methanesulfonic acid.

Personal care

We offer high-quality, value-adding and sustainable ingredients for the personal care industry. Our focus on consumer trends and our ability to innovate and bring new products rapidly to market contribute strongly to the success of our customers. We take into consideration the entire value chain to develop sustainable solutions. The personal care product range includes surfactants and emulsifiers, polymers, emollients, cosmetic active ingredients and UV filters.

Our business approach draws its inspiration for products and concepts from consumers and society. We strive to make BASF's personal care business a valued partner for the industry in terms of scientific excellence, market knowledge and agility.

BASF's market position and main competitors

The Care Chemicals division holds one of the top three market positions in all strategic business areas in which it is active.

The main competitors (alphabetical order) include Clariant, Croda, Dow, Evonik, Sasol, Stepan, Syensqo and Zanyu.

Focus of research and development

We are committed to delivering innovative and sustainable products and solutions in close collaboration with customers in our core markets, with a strong focus on bio-based and biodegradable ingredients. With process innovation in our core technologies, we target continuous capacity and yield improvement to ensure competitiveness and reduce carbon footprints. We systematically identify and establish new technologies to best support our customers in driving innovation for end consumers.

Key capabilities of BASF

- Strong global production footprint close to our customers, also in emerging markets
- Innovative and sustainable solutions through BASF's global R&D network
- State-of-the-art formulation technologies

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Alkoxylates	Capacity expansion in Antwerp, Belgium	2023
Alkylpolyglucosides (APG)	Expansion of global capacities in Bangpakong, Thailand, and Cincinnati, Ohio	2025
Enzymes	Investment in production setup for bacterial enzymes and biotechnology products, Kundl/Schaftenau, Austria	2024
Methanesulfonic acid	Capacity expansion in Ludwigshafen, Germany	2022
Optical brighteners	Capacity expansion in Monthey, Switzerland	2022
UV filters	New plant in Jinshan, China	2023

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Surfactants	Divestiture of anionic surfactants business in Kankakee, Illinois	2021

Major nameplate capacities of BASF¹

Thousand metric tons per year

Product group	Location	Capacity
Anionic surfactants	Europe, North America, South America, Asia Pacific	550
Chelating agents	Europe, North America, South America	170
Methanesulfonic acid	Europe	50
Nonionic surfactants	Europe, North America, Asia Pacific	650

¹ All capacities are included 100%, including plants belonging to joint operations and joint ventures.

Innovation example



© Getty Images

Sustainable anti-redeposition performance

BASF's latest anti-redeposition polymer, BVERDE® GP 790 L, addresses the increasing demand from customers for cleaning products that prioritize sustainability without sacrificing performance. It is a grafted polysaccharide polymer that is 79% bio-based and readily biodegradable. This new polymer is highly compatible with standard laundry liquid detergent formulations, resulting in a clear and uniform product. In contrast to the current market incumbent ingredient, polyacrylic acid (PAA), which is not biodegradable, BVERDE® offers performance parity while maintaining sustainability credentials.

Nutrition & Health

BASF's Nutrition & Health division develops, produces and markets ingredients for the nutrition and health industries. Our products fulfill the highest safety, regulatory and sustainability standards. Together with our customers, we play an active part in enhancing the nutrition and health of consumers all over the world.

Portfolio

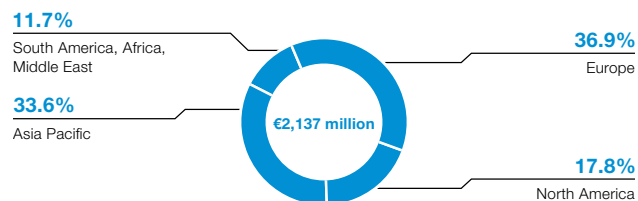
Aroma ingredients

BASF is a leading supplier of high-quality and innovative aroma ingredients for the flavor and fragrance industry. We offer a wide variety of aroma ingredients, such as L-menthol, geraniol, citronellol and linalool, which are part of our citral value chain. In 2019, we broadened our portfolio with renewable-based natural ingredients by acquiring Isobionics®. We are committed to a sustainable future by providing aroma products with a significant sustainability contribution. Our offers focus on a reduced product carbon footprint and include upcycled and renewable alternatives via BASF's biomass balance approach. Our aroma ingredients are sold to the flavor and fragrance industry for use mainly in home and personal care products, in fine fragrances and in the food industry. Our global production network – comprising world-scale plants in Ludwigshafen, Germany; Kuantan, Malaysia; as well as one currently under construction in Zhanjiang, China – puts us in a unique position to ensure the highest level of supply security.

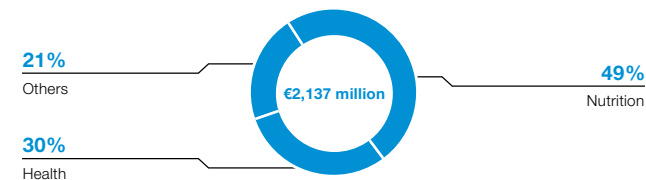
Nutrition ingredients

BASF is one of the leading suppliers of feed additives for livestock and companion animals. With decades of experience in the feed sector, in development, production and application, we place particular importance on delivering the highest quality for the benefit of humans and animals alike. Our focus is on supplying the feed industry with highly effective products like vitamins such as vitamin A

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023¹



¹ Aroma ingredients business is included in the customer industries nutrition and others.

and E, carotenoids, enzymes and organic acids. We offer our customers ingredients that reduce greenhouse gas emissions and improve resource efficiency as well as animal wellbeing.

Our ingredients for human nutrition comprise high-quality vitamins, such as vitamin A, E, B₂ and carotenoids as well as food and health performance ingredients, such as plant sterols or conjugated linoleic acids. They show performance excellence in a variety of applications in strategic market segments such as functional nutrition, dietary supplements, colorants for food and beverages as well as pharmaceutical applications. For specific vitamin A and E products, we offer product carbon footprints (PCFs) that are at least 20% better than the global market average.² In our food fortification initiative, our health ingredients help fortify staple foods to combat micronutrient deficiencies across the world.

Pharma solutions

In pharma solutions, we produce innovative excipients and active ingredients of outstanding quality and performance. Our portfolio comprises not only functional excipients, but also active pharmaceutical ingredients and nutritional ingredients. We offer a diverse range of ibuprofen and omega-3 grades, in addition to other actives including L-menthol, PVP-iodine, azelaic acid and dexpanthenol.

With digital solutions such as the Virtual Pharma Assistants and a global team of industry experts, BASF supports its customers in developing efficient, cost-effective and reliable formulations. Equipped with an in-depth understanding of multiple technologies and applications, we have the knowledge and resources to make biologics and drug manufacturing as well as delivery safer and more sustainable.

² Data source BASF's product carbon footprints: BASF's Strategic CO₂ Transparency Tool (SCOTT), July 2023; Data sources for producers: BASF own estimations on bill of materials and energies (in-house technology and business intelligence experts); market average weighted – based on nameplate capacities without BASF; stating >20% reflects safety buffer to account for degrees of freedom in ISO methods.

BASF's market position and main competitors

The Nutrition & Health division holds one of the top three market positions in almost all strategic business areas in which it is active.

The main competitors (alphabetical order) include Ashland, Croda, DSM-Firmenich, IFF, NHU and ZMC.

Focus of research and development

Together with our customers and partners, we continuously work on translating ideas into innovations. Ongoing process innovation ensures technological and cost leadership in our major product lines.

Key capabilities of BASF

- Cost leadership through integration into the Verbund
- Value-driven innovation to support customer needs
- Deep understanding of the nutrition and health market
- High expertise in a complex regulatory environment
- Sustainability and quality management

Major nameplate capacities of BASF¹

Thousand metric tons per year

Product group	Location	Capacity
Citral	Europe, Asia Pacific	78

¹ All capacities are included 100%, including plants belonging to joint operations and joint ventures

Acquisitions/JVs/investments

From 2021 onward

Product group	Description	Year
Animal nutrition	Capacity expansion of enzyme plant in Ludwigshafen, Germany	2021
	Expansion of vitamin A acetate plant in Ludwigshafen, Germany	2021
	Startup of new world-scale vitamin A formulation plant in Ludwigshafen, Germany	2023
Aroma ingredients	New world-scale citral plant in Zhanjiang, China	2026
	New menthol and linalool plants in Ludwigshafen, Germany	2026

Divestitures/shutdowns

From 2021 onward

Product group	Description	Year
Human nutrition	Divestiture of site in Kankakee, Illinois, and associated businesses of vegetable-oil-based pharmaceutical raw material sterols, natural vitamin E, anionic surfactants and esters	2021

Major production sites

Product group	Site
Animal nutrition	Gunsan, South Korea; Ludwigshafen, Germany; Shenyang, China
Aroma ingredients	Geleen, Netherlands; Kuantan, Malaysia; Ludwigshafen, Germany
Human nutrition	Ballerup, Denmark; Boussens, France; Cheltenham, Hutt Lagoon and Whyalla, Australia; Gunsan, South Korea; Illertissen and Ludwigshafen, Germany
Pharma solutions	Bishop, Texas; Callanish, United Kingdom; Sandefjord, Norway

Innovation example



Excipient Kollitab™ DC 87 L maximizes flowability and tablet strength

Our BASF Pharma Solutions team has introduced Kollitab™ DC 87 L, a co-processed excipient optimized for direct compression processes. The excipient is designed to maximize flowability and tablet strength, with a formulation that has high stability and low sensitivity to overblending. Its round particle shape ensures excellent flowability from feeder hoppers and during tableting, for high process robustness and low tablet weight variability. Kollitab™ DC 87 L can produce strong tablets across a broad range of compression forces, reducing both stress and punch damage on the tablet press, for better machine durability and less tablet defects. This product ensures fast tablet disintegration to quickly deliver the intended benefits of active pharmaceutical ingredients. This is especially valuable for high-strength tablets that tend to take longer to disintegrate.

Agricultural Solutions

In the Agricultural Solutions segment, we aim to further strengthen our market position as an integrated solutions provider. Our offer comprises seeds, traits, seed treatment products, biological and chemical crop protection solutions, complemented by digital farming products to help farmers grow more and sustainably better quality crops. Our strategy is based on innovation-driven organic growth and targeted portfolio expansion through acquisitions and collaborations. Customer needs, societal expectations and reducing environmental impacts are what motivate us to innovate.



Virus-resistant tomato seed varieties for less food loss

Tomato brown rugose fruit virus (ToBRFV) is an aggressive and persistent plant virus that causes severe crop losses in tomatoes worldwide. After the virus was discovered, BASF quickly identified genetic sources of resistance and applied state-of-the-art breeding methods to be able to offer resistant and competitive varieties. The first resistant tomato varieties were made available under the Nunhems® brand in 2020 and BASF has since expanded the range to more than 20 varieties for different markets and consumer preferences. Using these resistant varieties in combination with appropriate hygiene protocols offers a solution that benefits both growers and the food supply chain.

 For more information on ToBRFV-resistant seed varieties, see [basf.com/en/rugose-virus](https://www.basf.com/en/rugose-virus)

Agricultural Solutions

Sales

€1,962 million

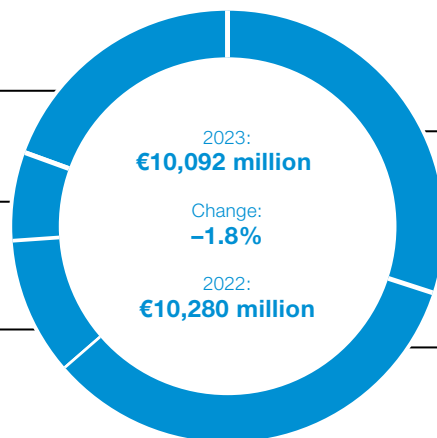
Seeds & Traits
Change: 4.8%
Share of sales: 19.4%

€662 million

Seed Treatment
Change: -17.9%
Share of sales: 6.6%

€1,041 million

Insecticides
Change: -1.5%
Share of sales: 10.3%



€3,047 million

Fungicides
Change: 2.3%
Share of sales: 30.2%

€3,380 million

Herbicides
Change: -5.3%
Share of sales: 33.5%

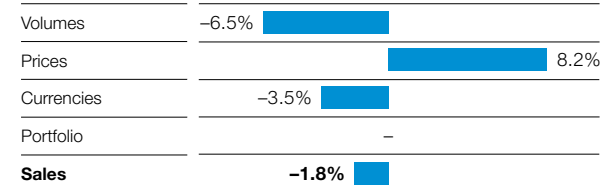
Segment data

Million €

	2023	2022	2021	2020	2019
Sales to third parties	10,092	10,280	8,162	7,660	7,814
Share of total BASF sales	% 14.6	11.8	10.4	13.0	13.2
Income from operations before depreciation, amortization and special items	2,270	1,928	1,375	1,680	1,809
EBITDA margin before special items	% 22.5	18.8	16.8	21.9	23.2
Income from operations before depreciation and amortization (EBITDA)	2,177	1,922	1,358	1,582	1,647
EBITDA margin	% 21.6	18.7	16.6	20.7	21.1
Income from operations (EBIT) before special items	1,563	1,220	715	970	1,095
Income from operations (EBIT)	1,131	1,221	696	582	928
Segment cash flow	1,746	179	-	-	-
Return on capital employed (ROCE)	% 6.4	7.1	4.5	3.6	5.3

Factors influencing sales

2023 versus 2022



EBITDA before special items

Million €



Agricultural Solutions

Farming is fundamental to provide enough healthy and affordable food for a rapidly growing population while reducing environmental impacts. BASF's Agricultural Solutions division connects innovation, customers, partners and agricultural experts and integrates sustainability criteria into all business decisions. We help farmers deliver the best possible outcomes, working to achieve the balance between economic, environmental and social value creation for sustainable and efficient agriculture.

Portfolio

Digital farming

With products from xarvio® Digital Farming Solutions, we enable precision farming and help farmers globally optimize crop yield using fewer natural resources and crop inputs.

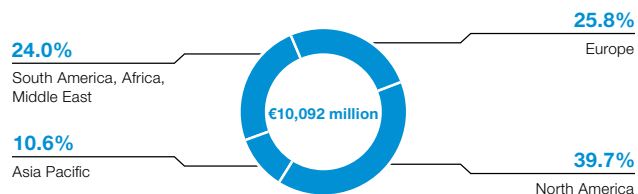
- We developed ONE SMART SPRAY jointly with Bosch. This technology detects weeds in row crops, delivers precise herbicide application and maximizes crop production while reducing environmental impacts. In 2023, it was launched commercially in Germany and Hungary.

Field crop seeds & traits

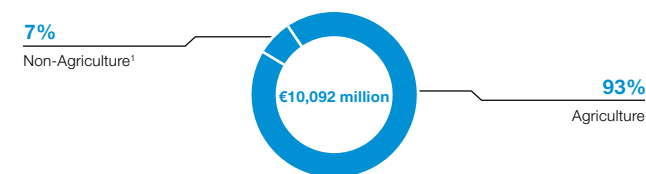
Bringing high yield potential germplasm, advanced trait technologies and continuous innovation addressing the current and future needs of farmers:

- A strong seed brand portfolio that delivers high-quality seed germplasms via high-performing hybrids and varieties that adapt to the growing conditions of local farmers. The portfolio includes InVigor® canola (oil seed rape), FiberMax® cotton, Stoneville® cotton and Credenz® soybean seed.
- From herbicide-tolerance to insect resistance and agronomic trait technologies, our traits help crops realize their full potential. The portfolio includes pod shatter reduction technology, LibertyLink®,

Sales by region 2023 (location of customer)



Sales by direct customer industry 2023



¹ Aquaculture, forestry, home and garden, industrial weed control, ornamentals, public health, turf, urban pest control

GlyToI®, TwinLink®, TwinLink® Plus, Clearfield® Production System and Provisia® Rice System. The newest trait is Axant™ Flex, the first quadruple-stacked herbicide trait package for cotton.

Fungicides

Conducting pioneering research to find new active ingredients and provide our customers new options to control fungal diseases:

- RevysoI® meets the highest level of regulatory standards and offers outstanding biological performance against difficult-to-control pathogens in specialty and row crops. The active ingredient has received registrations in all regions. RevysoI®-based products have been introduced globally in all major crops.
- Xemium® is a key component of BASF's fungicides portfolio due to its broad-spectrum disease control. It has excellent mobility in the plant and long-lasting residual action. Xemium® is available in more than 80 countries for roughly 150 different crops.

Herbicides

Reducing competition from weeds secures yield and harvest quality, enabling no-till farming practices:

- Luximo®, with no known cross-resistance, provides soil residual control against a broad range of grasses in cereal crops.

- Tirexor® is a PPO-inhibiting herbicide (protoporphyrinogen IX oxidase) for controlling weeds currently resistant to other PPO inhibitors, effective burndown of broadleaf weeds and suppression of annual ryegrass. Voraxor® harnesses the combined strength of Tirexor® and Kixor®, allowing the two potent PPO active ingredients to provide growers with a powerful, new weed control tool.
- Kixor CS® utilizes a patented and breakthrough solid encapsulation technology to control tough broadleaf weeds beyond pre-emergence to early post. Surtain™, powered by Kixor CS®, offers growers a wide application window with control or suppression of 79 key broadleaf and grass weeds.

Insecticides

Combating insect pests in agriculture and beyond:

- Axalion® Active is a new class of chemistry with a novel mode of action. Axalion® provides long-lasting control of a broad spectrum of piercing and sucking pests, while working harmoniously with beneficials and the environment when applied according to the label. Australian farmers had first access to Axalion® with the launch of Efficon® in April 2023; additional launches are planned in Asia, Europe and South America in the coming years.

Innovation example



New plant for biotechnology-based crop protection products

BASF is investing in a new fermentation plant for biological and biotechnology-based crop protection products at its Ludwigshafen site. The plant will use microorganisms to convert renewable raw materials such as glucose into the desired products – a process known as fermentation. This development is another step in the transition to innovative manufacturing processes with lower energy intensity based on renewable raw materials.

- Inscalis^{®1} offers an alternative mode of action for the control of piercing and sucking insects in row and specialty crops as well as ornamentals.
- Broflanilide,² with a novel mode of action, is highly efficacious against chewing pests in specialty and row crops. It also combats ants, cockroaches and flies in the professional pest management market.

Seed treatment

Biological and chemical products, functional coatings and colorants to improve seed performance:

- Poncho[®] Votivo[®] is a systemic insecticide and biological seed treatment to control insect pests and protect against soil plant pathogenic nematodes.
- ILEVO[®] seed treatment for soybeans provides broad-spectrum nematode protection against soybean sudden death syndrome and cyst nematode, two of the top yield robbers.
- Teraxxa[®] is the only seed treatment for cereals that eliminates wireworms by interfering with nerve signal communication.
- Sepiret[®] delivers performance and industry-leading sustainability with microplastic-free seed coatings.

Vegetable seeds

We develop solutions for growers to produce high-quality vegetables more efficiently and sustainably through breeding and partnerships across the value chain. Under the Nunhems[®] brand, BASF offers a diverse range of over 1,200 vegetable varieties sourced from 20 different crops.

- The development of the first iceberg lettuce variety that is well-suited for mechanical harvesting is an example of BASF's focus on varietal breeding to tackle grower challenges like availability and cost of labor. Additionally, the Flexiton leek variety reduces cleaning costs for growers by up to 20 percent.

BASF's market position and main competitors

The Agricultural Solutions division holds one of the top four market positions in almost all strategic business areas in which it is active.

The main competitors (alphabetical order) include Bayer, Corteva, FMC and Syngenta.

Research and development

Our innovation pipeline has a peak sales potential of more than €7.5 billion for products and solutions launched by 2033. These are seeds, traits, fungicides, herbicides, insecticides, biological and digital solutions tailored to the farming needs of their region and crop systems. The industry's first commercial biotechnology trait to control nematodes is in development as well as multiple novel weed control solutions, including a new PPO herbicide with a corresponding herbicide tolerance gene.

Key capabilities of BASF

- Strong customer orientation with a comprehensive offer for strategic crop 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
- Strengthened R&D pipeline for sustainable agriculture helping farmers balance environmental and economic challenges as well as meeting consumer demand for more sustainably produced food
- Stringent patent management
- Innovative digital farming solutions
- Strong integration into the Production and Know-How Verbund

Selected acquisitions/JVs/investments/divestitures

From 2021 onward

Product group	Description	Year
Crop protection/active ingredients	Divestiture of active ingredient for control of plant-parasitic nematodes to Mitsui Chemicals Agro	2021
	New fermentation plant for biological and biotechnology-based crop protection products (Germany)	2025
Digital farming	Founding of BOSCH BASF Smart Farming GmbH	2021
	Acquisition of Horta S.r.l. (Italy)	2022
Formulation capacities	New formulation facility (Singapore)	2022
Seeds	Expansion of tomato breeding facilities (Netherlands)	2021
	Acquisition of melon breeding company ASL (France)	2023

¹ Co-developed with Meiji Seika Pharma Co. Ltd.
² Co-developed with Mitsui Chemicals Agro, Inc.

Other

Activities that are not allocated to any of the divisions are recorded under Other. These include commodity trading, engineering and other services, as well as rental income and leases. Discontinued operations and certain activities remaining after divestitures are also reported here.

The following activities are also presented under Other:

- The steering of the BASF Group by corporate headquarters.
- Cross-divisional corporate research, which includes plant biotechnology research, works on long-term topics of strategic importance to the BASF Group. Furthermore, it focuses on the development of specific key technologies, which are of overriding importance for the divisions.
- Trade with renewable energies as well as the activities of the Net Zero Accelerator unit, which bundles cross-company projects to achieve climate protection targets.
- Foreign currency results not allocated to the segments and measurement effects from the hedging of raw materials price and foreign currency exchange risks; as well as gains and losses from the long-term incentive programs (LTI programs).
- Remanent fixed costs resulting from organizational changes or restructuring that are not allocated to a division; idle capacity costs from internal human resource platforms; and consolidation effects that cannot be allocated to a division.

Financial data – Other¹

Million €

	2023	2022	+/-
Sales	3,220	4,368	-26.3%
Income from operations before depreciation, amortization and special items	-466	-594	21.5%
Income from operations before depreciation and amortization (EBITDA)	-626	-368	-70.1%
Depreciation and amortization ²	153	155	-1.4%
Income from operations (EBIT)	-778	-523	-48.9%
Special items	-164	226	.
EBIT before special items	-614	-749	18.0%
of which costs for cross-divisional corporate research	-242	-325	25.5%
costs of corporate headquarters	-222	-258	14.0%
other businesses	83	-43	.
foreign currency results, hedging and other measurement effects	-29	33	.
miscellaneous income and expenses	-204	-156	-30.8%
Investments including acquisitions ³	195	268	-27.1%
Assets ⁴	14,393	16,803	-14.3%
Research and development expenses	356	381	-6.4%

¹ Information on the composition of Other can be found in the BASF Report 2023 from page 242 onward.

² Depreciation and amortization of property, plant and equipment and intangible assets (including impairments and reversals of impairments)

³ Additions to property, plant and equipment and intangible assets

⁴ Includes assets of businesses recognized under Other and reconciliation to assets of the BASF Group

In 2023, **sales** in Other amounted to €3,220 million, €1,148 million below the prior-year figure. The decline in sales was mainly due to lower sales in both commodity and energy trading.

EBIT before special items improved by €135 million year on year to –€614 million. This was mainly driven by higher contributions from other businesses compared with the previous year as well as lower expenses in connection with corporate research and the corporate headquarters.

EBIT decreased by €256 million compared with 2022 to –€778 million. This was primarily due to special income in 2022 attributable to the partial divestiture of the interest in the Hollandse Kust Zuid wind farm.

Non-Integral Shareholding in Wintershall Dea

In May 2019, Wintershall Holding GmbH and DEA Deutsche Erdöl AG merged to form Europe’s leading independent natural gas and oil company: Wintershall Dea AG. BASF holds 72.7% of the ordinary shares in Wintershall Dea AG; 27.3% are held by LetterOne.

Wintershall Dea stands for over 120 years of experience as an operator and project partner along the entire E&P value chain. The company employs around 2,500 people worldwide from almost 60 nations. The company with German roots and headquarters in Kassel and Hamburg explores for and produces gas and oil in 11 countries worldwide in an efficient and responsible manner.

With activities in Northern Europe, Latin America and the MENA region (Middle East and North Africa), Wintershall Dea has a global upstream portfolio.

Activities by country



Withdrawal from Russia

On January 17, 2023, Wintershall Dea announced its full exit from Russia in compliance with all legal requirements. In this context, Wintershall Dea is implementing a legal separation of its Russia-related business. This comprises the interest in the joint ventures in Russia, the shareholdings in Wintershall AG (51% interest) in Libya and Wintershall Noordzee BV (50% interest) in the Netherlands as well as the interest in Nord Stream AG (15.5% interest).

Agreement with Harbour Energy on the merger of businesses

On December 21, 2023, BASF, LetterOne and Harbour Energy plc (Harbour) signed an agreement to combine the businesses of Wintershall Dea and Harbour. Accordingly, 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 Wintershall Dea’s carbon storage (CCS) licences. In exchange, the shareholders of Wintershall Dea will receive a total cash consideration of \$2.15 billion (BASF interest: \$1.56 billion) on completion of the transaction as well as new shares to be issued by Harbour, equating to a total 54.5% shareholding in the enlarged Harbour (BASF interest: 39.6%). The agreed enterprise value for Wintershall Dea’s assets amounts to \$11.2 billion. On completion of the transaction, Wintershall Dea’s outstanding bonds with a nominal value of around \$4.9 billion will be transferred to Harbour.

In 2022, the combined business had pro forma sales of \$13.5 billion and EBITDAX¹ of \$10.3 billion. Overall, production volumes of Harbour and Wintershall Dea amounted to 526 thousand barrels of oil equivalent per day in 2022. At the end of 2022, combined 2P reserves stood at 1.5 billion barrels of oil equivalent.

¹ EBITDAX is defined as sales revenue and other income less production and operating expenses, less production-related taxes and less general administrative expenses, adjusted for special effects.

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

Wintershall Dea’s headquarters and its employees are not part of the transaction with Harbour. This means that, in addition to the restructuring initiated in September 2023, further restructuring and ultimately the closure of the headquarters in Kassel and Hamburg, which currently employ around 850 people, will be necessary. Harbour intends to take on some employees from the current headquarters into the combined company. Further details are currently being elaborated as part of a more detailed review between signing and closing. In 2023, Wintershall Dea already reduced its Management Board from five to three members. In 2023, Wintershall Dea recognized the necessary provisions for the implementation of the upcoming restructuring measures.

With this agreement, BASF is taking a major step toward achieving its announced strategic goal of exiting the oil and gas business. Completion of the transaction will create opportunities for BASF to monetize its shares in the combined company, as Harbour is listed on the London Stock Exchange.

In March 2024, Wintershall Dea signed an agreement with SEFE Securing Energy for Europe GmbH (SEFE) to sell its 50.02% share in WIGA Transport Beteiligungs-GmbH & Co. KG and WIGA Verwaltungen-GmbH (together WIGA) to SEFE. Subject to regulatory approvals, the transaction is expected to close in summer 2024.

Operating and financial performance of Wintershall Dea

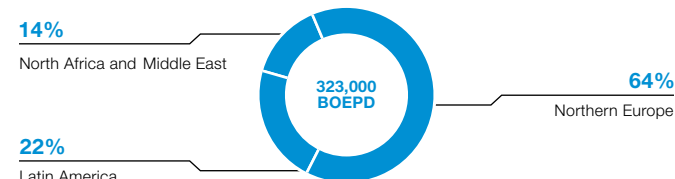
In 2023, Wintershall Dea had revenues and other income of €9.1 billion (€16.9 billion in 2022), income from operations before depreciation, amortization and exploration (EBITDAX) of €4.2 billion (€5.9 billion in 2022) and adjusted net income of €0.5 billion (€0.9 billion in 2022). Total production of Wintershall Dea (excluding Libya onshore) was 323,000 barrels of oil equivalent per day (BOEPD) (321,000 BOEPD in 2022). As of December 31, 2023, proven and probable reserves stood at 1.3 billion BOE, corresponding to a reserve to production ratio of 11 years.

Key financials of Wintershall Dea (excluding segment Russia)

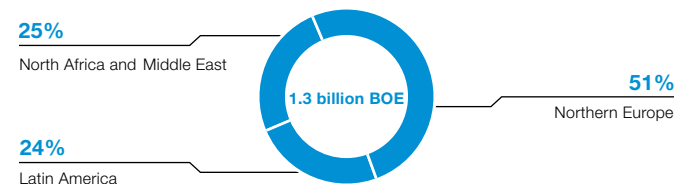
Million €	2023	2022 ¹
Revenues and other income	9,064	16,936
EBITDAX ²	4,190	5,924
Adjusted net income ³	513	928

- ¹ Unaudited figures
- ² EBITDAX is defined as sales revenue and other income less production and operating expenses, less production-related taxes and less general administrative expenses, adjusted for special effects.
- ³ Adjusted net income is derived from EBITDAX less depreciation and amortization, less exploration expenses, plus financial income, less financial expenses and less income taxes, adjusted for special items and tax effects on adjusted special items and disregarded items (e.g., impairments on assets).

Production 2023 by region (excluding Russia)



Proven and probable reserves (2P) 2023 by region (excluding Russia)



3

Financials

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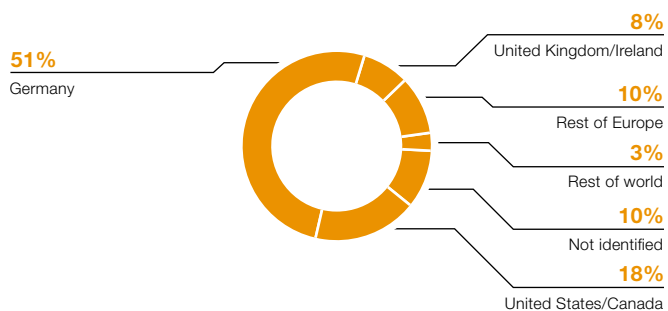
BASF on the Capital Market

Broad base of international shareholders

With over 900,000 shareholders, BASF is one of the largest publicly owned companies with a high free float. An analysis of the shareholder structure carried out at the end of 2023 showed that, at around 18% of share capital, the United States and Canada made up the largest regional group of institutional investors. Institutional investors from Germany accounted for around 4%. Institutional investors from the United Kingdom and Ireland hold 8% of BASF shares, while investors from the rest of Europe hold a further 10% of capital. Approximately 47% of the company's share capital is held by private investors, nearly all of whom reside in Germany. BASF is therefore one of the DAX companies with the largest percentage of private shareholders.

Shareholder structure

By region, rounded



Employees becoming shareholders

In many countries, we offer share purchase programs that turn our employees into BASF shareholders. In 2023, around 26,700 employees (2022: around 27,100) purchased BASF shares worth €68.1 million (2022: €92.8 million).

BASF – a sustainable investment

BASF has participated in the program established by the international organization CDP for reporting on data relevant to climate protection since 2004. CDP represents more than 740 investors with over \$136 trillion in assets and more than 330 major organizations with \$6.4 trillion in purchasing power. In February 2024, CDP once again awarded BASF Leadership status in the categories of climate protection, water management and forest protection for the 2023 business year. BASF achieved a rating of A- in each category. In the climate protection category, CDP assesses, among other things, the transparency of emissions reporting, the handling of opportunities and risks arising from climate change, the climate protection strategy and measures to reduce CO₂ emissions.

The CDP assessment for sustainable water management takes into account how transparently companies report on their water management activities and how they reduce risks such as water scarcity. BASF continues to implement its sustainable water management target at all relevant production sites. CDP also evaluates the extent to which product developments can contribute to sustainable water management for customers. BASF participated in the CDP's "Forests" assessment for the fourth time in 2023. The assessment is based on detailed insights into the palm value chain and on activities that impact ecosystems and natural habitats.

MSCI ESG Research awarded BASF an A rating in 2023. The analysts highlighted BASF's presence in clean technology markets

and its clearly defined strategy to reduce CO₂ emissions and water consumption.

BASF again achieved Prime status (B-) in the ISS ESG rating developed by Institutional Shareholder Services, placing it in the top 10% of the companies assessed.

In Morningstar Sustainalytics¹¹ ESG Risk Ratings, BASF belongs to the best category for "diversified chemicals" with a medium ESG risk and was recognized for its risk management, for example, in the areas of CO₂ emissions, wastewater and waste, and occupational health and safety.

BASF is a founding member of the United Nations Global Compact. This means that we consistently support the U.N. Global Compact and its 10 principles of responsible business conduct and the Sustainable Development Goals.

BASF share performance

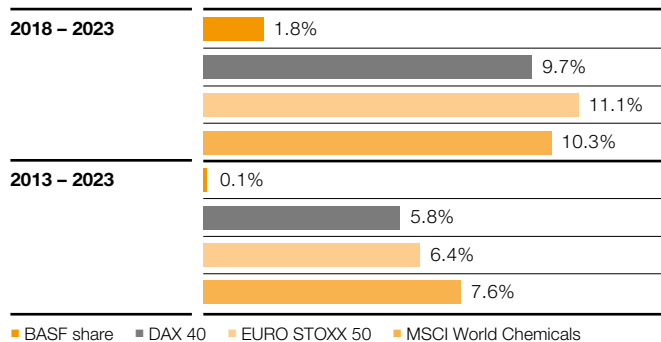
After BASF's share price reached an annual high of €54.04 on February 3, 2023, it initially declined over the year. During the last two months of 2023, the stock market was supported by expectations of future interest rate cuts. BASF shares recovered in line with the overall market and closed the year at €48.78. Share performance in the course of the year was mainly attributable to the weakening of the economy, continued high inflation, higher interest rates and increasing geopolitical tensions; these led to significant uncertainty on the global markets and dampened demand in many sectors.

Assuming that dividends were reinvested, BASF's share performance increased by 12.9% in 2023. The benchmark indexes of the German and European stock markets – the DAX 40 and the EURO STOXX 50 – rose by 20.3% and 22.2% over the same period, respectively. The global industry index MSCI World Chemicals gained 14.3%.

¹ Morningstar Sustainalytics provides institutional investors and companies with ESG and corporate governance research, ratings and analytics.

Long-term performance of BASF shares compared with indexes

Average annual increase with dividends reinvested



American depositary receipts

American depositary receipts (ADRs) allow U.S. institutional and retail investors to trade and own non-U.S. companies directly through the U.S. equity markets. BASF has a sponsored level 1 program, which is traded on OTC-QX, the platform for international quality companies on OTC markets. BASF's ADRs (Symbol: BASFY) are now included in International PremierQX, the highest OTC market tier.

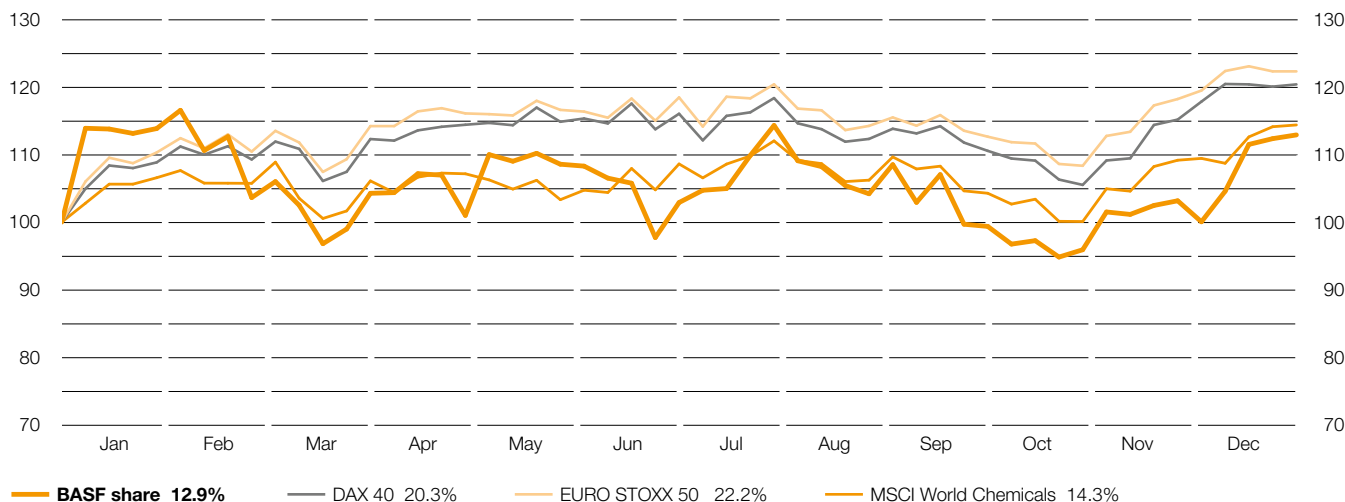
For further information, see basf.com/share

Analysts' recommendations

Around 25 financial analysts regularly publish studies on BASF. The latest analyst recommendations for our shares as well as the average target share price ascribed to BASF by analysts can be found online at basf.com/analystestimates.

Change in value of an investment in BASF shares in 2023

With dividends reinvested; indexed



Shareholder return

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dividends	million €	2,572	2,664	2,755	2,847	2,939	3,031	3,031	3,072	3,035	3,035
Dividend per share	€	2.80	2.90	3.00	3.10	3.20	3.30	3.30	3.40	3.40	3.40
Share price at year-end	€/share	69.88	70.72	88.31	91.74	60.40	67.35	64.72	61.78	46.39	48.78
Dividend yield ¹	%	4.0	4.1	3.4	3.4	5.3	4.9	5.1	5.5	7.3	7.0
Payout ratio	%	50	67	68	47	63	36	.	57	.	.
Price-earnings ratio (P/E ratio) ¹		12.5	16.3	20.0	13.9	11.8	7.3	.	10.3	.	195.1
Free cash flow yield ²	%	2.6	5.6	4.4	5.7	7.3	5.9	3.8	6.5	8.0	6.2

¹ Based on year-end share price

² Free cash flow per share at year-end divided by share price at year-end

Dividend

For 2023, BASF paid a dividend of €3.40 per share and paid out €3.0 billion to its shareholders. Based on the year-end share price for 2023, BASF shares offer a high dividend yield of 7.0%. BASF is part of the DivDAX share index, which contains the 15 companies with the highest dividend yield in the DAX 40.

Dividend per share Dividend yield
€3.40 **7.0%**

Our practice is to increase the dividend per share each year or keep it stable.

Share buyback program

BASF ended its share buyback program on February 24, 2023, earlier than planned. This was done in line with the company's priorities for the use of cash and in view of the profound changes in the global economy over the course of 2022. From January 11, 2022, until February 23, 2023, BASF repurchased 25,956,530 own shares; this corresponds to 2.8% of the share capital at the time the program was announced. The purchase price for these own shares was around €1.4 billion. Originally, the share buyback program had been planned to reach a volume of up to €3 billion and to be completed by the end of December 2023 at the latest.

Close dialog with the capital market

Regular and transparent communication with the capital market is key to increasing long-term value. We engage with institutional investors and rating agencies in numerous one-on-one meetings, as well as at roadshows and conferences worldwide, and give private investors insights into BASF at informational events. In 2023,

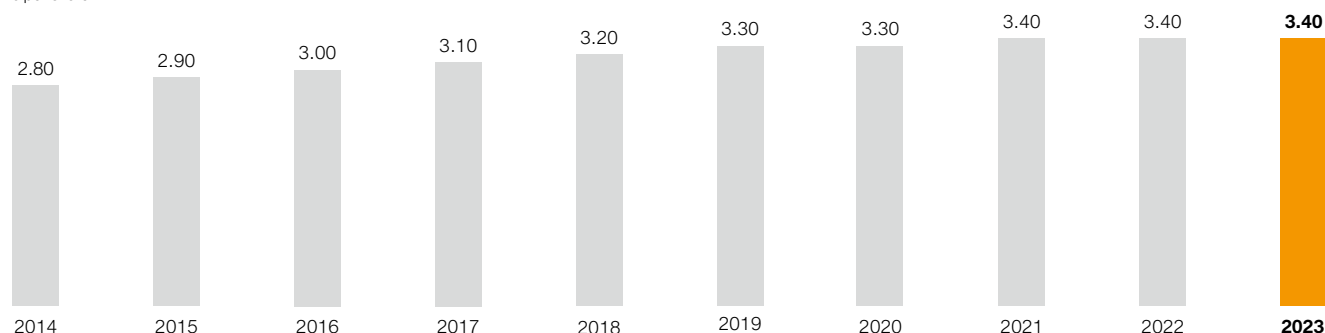
we increasingly offered physical formats again in addition to virtual formats such as video and conference calls.

As part of an Investor Update in the presence of analysts and investors in Ludwigshafen, Germany, in December 2023, Dr. Martin Brudermüller and Dr. Dirk Elvermann announced a more strongly differentiated approach to steering BASF operations and the new financial key performance indicators in the reporting and steering for the BASF Group, which will be used from 2024 onward. Furthermore, the progress made toward the corporate targets for Scope 1 and 2 emissions was presented and the targets for Scope 3.1 emissions were announced for the first time.¹

Analysts and investors have again confirmed the quality of our financial market communications. At the Investors' Darling awards ceremony, Manager Magazin presented BASF with special prizes for sustainability communications and digital communications. In addition, NetFed, a consultancy specializing in digital communications, awarded the BASF Investor Relations website second place in the IR Benchmark 2023.

Dividend per share

€ per share



Further information on the BASF share

Securities code numbers

Germany	BASF11
United States (CUSIP number)	055262505
ISIN International Securities Identification Number	DE000BASF111

International ticker symbols

Deutsche Börse	BAS
Pink Sheets / OTCQX	BASFY (ADR)
Bloomberg (Xetra trading)	BAS GY
Reuters (Xetra trading)	BASFn.DE

¹ Other greenhouse gases are converted into CO₂ equivalents in accordance with the Greenhouse Gas Protocol.

Business Review by Segment

Segment overview

Million €

	Sales		EBITDA before special items		EBITDA		EBIT before special items	
	2023	2022	2023	2022	2023	2022	2023	2022
Chemicals	10,369	14,895	1,167	2,774	1,167	2,771	361	1,956
Materials	14,149	18,443	1,650	2,686	1,523	2,660	826	1,840
Industrial Solutions	8,010	9,992	965	1,437	1,010	1,443	625	1,091
Surface Technologies	16,204	21,283	1,520	1,464	1,351	1,264	938	902
Nutrition & Care	6,858	8,066	565	1,067	578	1,055	107	618
Agricultural Solutions	10,092	10,280	2,270	1,928	2,177	1,922	1,563	1,220
Other	3,220	4,368	-466	-594	-626	-368	-614	-749
BASF Group	68,902	87,327	7,671	10,762	7,180	10,748	3,806	6,878

Segment overview

Million €

	EBIT		Assets		Investments including acquisitions ¹		Research and development expenses	
	2023	2022	2023	2022	2023	2022	2023	2022
Chemicals	364	1,758	11,468	10,481	2,706	1,701	83	93
Materials	378	1,776	9,716	10,864	1,083	880	185	201
Industrial Solutions	660	1,097	5,576	6,318	285	322	150	172
Surface Technologies	366	612	12,657	14,899	621	740	304	335
Nutrition & Care	119	605	7,496	8,038	765	642	150	172
Agricultural Solutions	1,131	1,221	16,089	17,071	353	414	900	944
Other	-778	-523	14,393 ²	16,803 ²	195	268	356	381
BASF Group	2,240	6,548	77,395	84,472	6,006	4,967	2,130	2,298

¹ Additions to property, plant and equipment² Includes assets of businesses recognized under Other and reconciliation to assets of the BASF Group

Regional Results

Sales by location of company

Million €

	2014	2015	2016	2017 ¹	2018 ²	2019	2020	2021	2022	2023
Europe	42,854	38,675	27,221	28,045	27,526	25,706	24,223	31,594	35,821	27,631
North America	15,467	15,665	14,682	15,937	15,900	16,420	16,440	21,935	24,343	19,003
Asia Pacific	11,643	11,712	11,512	13,658	13,454	13,384	14,895	20,632	21,309	17,142
South America, Africa, Middle East	4,362	4,397	4,135	3,583	3,340	3,806	3,591	4,437	5,854	5,126
BASF Group	74,326	70,449	57,550	61,223	60,220	59,316	59,149	78,598	87,327	68,902

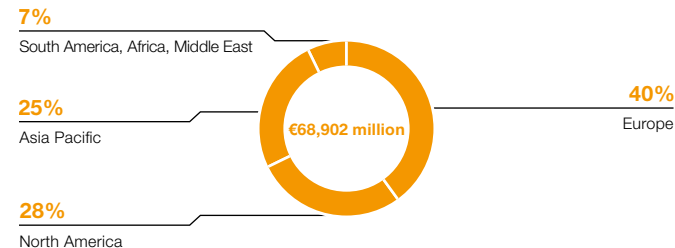
Sales by location of customer

Million €

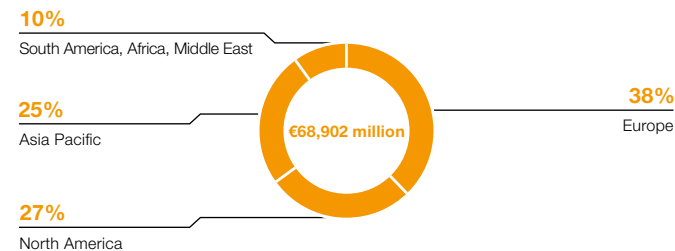
	2014	2015	2016	2017 ¹	2018 ²	2019	2020	2021	2022	2023
Europe	40,911	36,897	26,039	26,507	25,589	23,827	23,129	30,531	33,922	26,022
North America	15,213	15,390	14,042	15,357	15,388	15,948	15,709	20,867	23,869	18,833
Asia Pacific	12,341	12,334	12,165	14,343	14,210	14,203	15,406	21,234	21,823	17,520
South America, Africa, Middle East	5,861	5,828	5,304	5,016	5,033	5,338	4,905	5,965	7,713	6,527
BASF Group	74,326	70,449	57,550	61,223	60,220	59,316	59,149	78,598	87,327	68,902

¹ Figures for 2017 were restated with the presentation of the oil and gas activities as discontinued operations.
² Figures for 2018 were restated with the presentation of the construction chemicals activities as discontinued operations.

Sales by location of company 2023



Sales by location of customer 2023



Factors Influencing Sales and Currency Impact

Factors influencing sales of the BASF Group

Change in %

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Volumes	4	3	2	4	1	-3	-1	10.6	-7.0	-8.4
Prices	-3	-9	-4	8	4	-3	3	24.8	11.9	-10.0
Currencies	-1	6	-1	-1	-4	2	-3	-2.4	6.1	-2.5
Acquisitions/divestitures	0	-5	-15	1	1	2	1	-0.1	0.1	-0.2
Total	0	-5	-18	12	2	-2	0	32.9	11.1	-21.1

Factors influencing sales

Sales amounted to €68,902 million in the 2023 business year – a decrease of €18,424 million compared with the previous year. This sales development was mainly driven by considerably lower prices and volumes. Lower raw materials prices in particular led to lower prices in almost all segments. Considerable price increases in the Agricultural Solutions segment were unable to compensate for this. Sales volumes fell significantly in all segments as a result of weak demand from many of our customer industries. Currency effects, mainly relating to the Chinese renminbi, also weighed down sales performance. Portfolio effects, mainly in the Industrial Solutions segment and especially due to the sale of the kaolin minerals business as of September 30, 2022, also had a negative impact on sales.

Currency impact

Our competitiveness on global markets is influenced by fluctuations in exchange rates. For BASF’s sales, opportunities and risks arise in particular when the U.S. dollar exchange rate fluctuates. A full-year appreciation of the U.S. dollar against the euro by \$0.01 would increase the BASF Group’s EBITDA by around €40 million, assuming other conditions remain the same. On the production side, we counter exchange rate risks by producing in the respective currency zones.

Financial currency risks result from the translation of receivables, liabilities and other monetary items in accordance with IAS 21 at the closing rate into the functional currency of the respective Group company. In addition, we incorporate planned purchase and sales transactions in foreign currencies into our financial foreign currency risk management. If necessary, we hedge these risks using derivative instruments.

Annual impact of US\$/€ exchange rate change on BASF Group

(exchange rate: – \$0.01 per €)

Sales

€230 million

EBITDA

€40 million

Financing

Our financing policy aims to ensure our solvency at all times, limiting the risks associated with financing and optimizing our cost of capital. We preferably meet our external financing needs on the international capital markets. BASF continues to strive for a solid A rating, which ensures unrestricted access to financial and capital markets. Our financing measures are aligned with our operational business planning as well as the company's strategic direction and also ensure the financial flexibility to take advantage of strategic options.

Financing policy

We have solid financing, both for ongoing business and for investment projects initiated or planned. Corporate bonds form the basis of our medium to long-term debt financing. These are issued in euros and other currencies with different maturities as part of our €20 billion debt issuance program. The goal is to create a balanced maturity profile, diversify our financing and optimize our debt capital financing conditions.

For short-term financing, we use BASF SE's global commercial paper program, which has an issuing volume of up to \$12.5 billion. As of December 31, 2023, no commercial paper was outstanding under this program. A firmly committed, syndicated credit line of €6 billion with a term until 2026 covers the repayment of outstanding commercial paper. It can also be used for general company purposes. The credit line was not used at any point in 2023. In 2023, BASF Integrated Site (Guangdong) Co. Ltd., China, signed a syndicated bank term loan facility totaling 40 billion Chinese renminbi with a maturity of 15 years for the construction of the Verbund site in Zhanjiang. Of this amount, 1 billion Chinese renminbi (€127 million) was utilized as of December 31, 2023. Our external financing is therefore largely independent of short-term fluctuations in the credit markets.

BASF Group's most important financial contracts contain no side agreements with regard to specific financial ratios (financial covenants) or compliance with a specific rating (rating trigger). To minimize risks and leverage internal optimization potential within the Group, we bundle the financing, financial investments and foreign currency hedging of BASF SE's subsidiaries within the BASF Group where possible. Foreign currency risks are primarily hedged centrally using derivative financial instruments in the market.

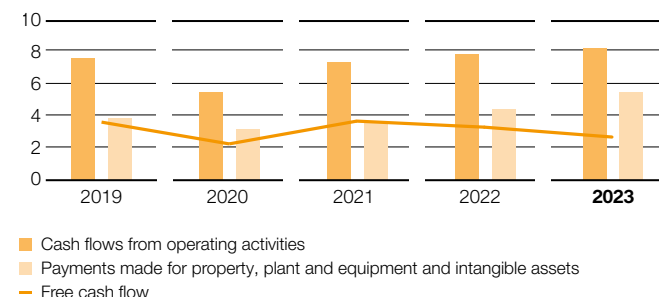
Cash flows from operating activities and free cash flow

Cash flows from operating activities amounted to €8,111 million, compared with €7,709 million in the previous year. The improvement was primarily due to cash inflow from net working capital. Net income increased by €852 million year on year to €225 million. Depreciation and amortization of property, plant and equipment and intangible assets were €740 million above the prior-year figure, in particular due to impairments. The non-cash-effective equity results improved by €4,577 million. In the previous year, these included the negative earnings contribution of -€4,853 million from Wintershall Dea AG, Kassel/Hamburg, Germany. The adjusted earnings for the aforementioned noncash items therefore decreased by €2,985 million compared with the previous year.

Free cash flow, which remains after deducting payments made for property, plant and equipment and intangible assets from cash flows from operating activities, represents the financial resources remaining after investments. It amounted to €2,715 million in 2023 following €3,333 million in the previous year.

Cash flow

Billion €



Good credit ratings and solid financing

BASF enjoys good credit ratings, especially compared with competitors in the chemical industry. On April 17, 2024, Moody's most recently confirmed its rating for BASF of A3/P-2/outlook stable. Fitch confirmed its rating of A/F1/outlook stable on November 8, 2023. Standard & Poor's adjusted its rating of A/A-1/outlook negative to A-/A-2/outlook stable on August 2, 2023.

Ratings as of May 1, 2024

	Noncurrent financial indebtedness	Current financial indebtedness	Outlook
Fitch	A	F1	stable
Moody's	A3	P-2	stable
Standard & Poor's	A-	A-2	stable

Ten-Year Summary

Million €

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Statement of income										
Sales	74,326	70,449	57,550	61,223 ¹	60,220 ²	59,316	59,149	78,598	87,327	68,902
Income from operations (EBIT)	7,626	6,248	6,275	7,587 ¹	5,974 ²	4,201	-191	7,677	6,548	2,240
Income before income taxes	7,203	5,548	5,395	6,882 ¹	5,233 ²	3,302	-1,562	7,448	1,190	1,420
Income after taxes from continuing operations	-	-	-	5,592 ¹	4,116 ²	2,546	-1,471	6,018	-391	379
Income after taxes from discontinued operations	-	-	-	760 ¹	863 ²	5,945	396	-36	-	-
Income after taxes	5,492	4,301	4,255	6,352	4,979	8,491	-1,075	5,982	-391	379
Net income	5,155	3,987	4,056	6,078	4,707	8,421	-1,060	5,523	-627	225
Income from operations before depreciation, amortization and special items (EBITDA before special items)	10,454	10,508	10,327	10,738 ¹	9,271 ²	8,324	7,435	11,348	10,762	7,671
EBIT before special items	7,357	6,739	6,309	7,645 ¹	6,281 ²	4,643	3,560	7,768	6,878	3,806
Capital expenditures, depreciation and amortization										
Additions to property, plant and equipment and intangible assets	7,285	6,013	7,258	4,364	10,735	4,097	4,869	4,881	4,967	6,006
of which property, plant and equipment	6,369	5,742	4,377	4,028	5,040	3,842	4,075	4,410	4,842	5,864
Depreciation and amortization of property, plant and equipment and intangible assets	3,417	4,401	4,251	4,202	3,750	4,146	6,685	3,678	4,200	4,941
of which property, plant and equipment	2,770	3,600	3,691	3,586	3,155	3,408	5,189	3,064	3,549	4,062
Number of employees at year-end	113,292	112,435	113,830	115,490	122,404	117,628	110,302	111,047	111,481	111,991
Personnel expenses	9,224	9,982	10,165	10,610	10,659	10,924	10,576	11,097	11,400	10,950
Research and development expenses	1,884	1,953	1,863	1,843¹	1,994²	2,158	2,086	2,216	2,298	2,130

¹ Figures for 2017 were restated with the presentation of the oil and gas activities as discontinued operations.

² Figures for 2018 were restated with the presentation of the construction chemicals activities as discontinued operations.

Million €

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Balance sheet (IFRS)										
Total assets	71,359	70,836	76,496	78,768	86,556	86,950	80,292	87,383	84,472	77,395
Noncurrent assets	43,939	46,270	50,550	47,623	43,335	55,960	50,424	52,332	47,050	45,923
of which intangible assets	12,967	12,537	15,162	13,594	16,554	14,525	13,145	13,499	13,273	12,216
of which property, plant and equipment	23,496	25,260	26,413	25,258	20,780	21,792	19,647	21,553	22,967	24,080
Current assets	27,420	24,566	25,946	31,145	43,221	30,990	29,868	35,051	37,422	31,472
of which inventories	11,266	9,693	10,005	10,303	12,166	11,223	10,010	13,868	16,028	13,876
of which accounts receivable, trade	10,385	9,516	10,952	10,801	10,665	9,093	9,466	11,942	12,055	10,414
of which cash and cash equivalents	1,718	2,241	1,375	6,495	2,300	2,427	4,330	2,624	2,516	2,624
Equity	28,195	31,545	32,568	34,756	36,109	42,350	34,398	42,081	40,923	36,646
Total liabilities	43,164	39,291	43,928	44,012	50,447	44,600	45,894	45,301	43,550	40,750
of which financial indebtedness	15,384	15,197	16,312	18,032	20,841	18,377	19,214	17,184	19,016	19,268

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Key data											
Earnings per share	€	5.61	4.34	4.42	6.62 ¹	5.12	9.17	-1.15	6.01	-0.70	0.25
Adjusted earnings per share	€	5.44	5.00	4.83	6.44 ¹	5.87	4.00	3.21	6.76	6.96	2.78
Cash flows from operating activities	million €	6,958	9,446	7,717	8,785	7,939	7,474	5,413	7,245	7,709	8,111
EBITDA margin before special items	%	14.1	14.9	17.9	17.5 ²	15.4 ²	14.0	12.6	14.4	12.3	11.1
Return on assets	%	11.7	8.7	8.2	9.5 ²	7.1	4.5	-1.2	9.5	2.1	2.8
Return on equity after tax	%	19.7	14.4	13.3	18.9	14.1	21.6	-2.8	15.6	-0.9	1.0
Return on capital employed (ROCE)	%	-	-	-	15.4	12.0 ²	7.7	1.7	13.7	10.0	4.5
Appropriation of profits											
Net income of BASF SE ³	million €	5,853	2,158	2,808	3,130	2,982	3,899	3,946	3,928	3,849	7,434
Dividend	million €	2,572	2,664	2,755	2,847	2,939	3,031	3,031	3,072	3,035	3,035
Dividend per share	€	2.80	2.90	3.00	3.10	3.20	3.30	3.30	3.40	3.40	3.40
Number of shares as of December 31	million	918.5	918.5	918.5	918.5	918.5	918.5	918.5	918.5	893.9	892.5

¹ Figures for 2017 were restated with the presentation of the oil and gas activities as discontinued operations.

² Figures for 2018 were restated with the presentation of the construction chemicals activities as discontinued operations.

³ Calculated in accordance with German GAAP

Selected Key Figures Excluding Precious Metals

The IFRS figures correspond to the amounts presented in the Consolidated Financial Statements. The adjusted figures exclude sales in precious metal trading and precious metal sales in the automotive catalysts business.

BASF Group

		2023		2022	
		IFRS figure	Adjusted figure	IFRS figure	Adjusted figure
Sales	million €	68,902	61,324	87,327	74,990
Volume growth	%	-8.4	-7.3	-7.0	-3.6
EBITDA before special items	million €	7,671	7,671	10,762	10,762
EBITDA margin before special items	%	11.1	12.5	12.3	14.4

Surface Technologies

		2023		2022	
		IFRS figure	Adjusted figure	IFRS figure	Adjusted figure
Sales	million €	16,204	8,626	21,283	8,947
Volume growth	%	-9.6	-1.4	-13.0	3.9
EBITDA before special items	million €	1,520	1,520	1,464	1,464
EBITDA margin before special items	%	9.4	17.6	6.9	16.4

Investor Relations Team



Dr. Stefanie Wettberg
Senior Vice President IR
+49 621 60-48002
stefanie.wettberg@basf.com



Dr. Lars Budde
Deputy Head of IR
Institutional Investors in Europe,
Creditor Relations worldwide
+49 621 60-91386
lars.budde@basf.com



Alexander Köhler
Institutional Investors in North America
+1 973 362 2733
alexander.koehler@basf.com



Daniela Müller-Roser
Institutional Investors in Europe
+49 621 60-43267
daniela.mueller-roser@basf.com



Gareth Rees
ESG Investors worldwide; Institutional
Investors in Asia Pacific and Middle East
+49 621 60-47016
gareth.rees@basf.com



Jennifer Rieß
Retail Investors
+49 621 60-40911
jennifer.riess@basf.com



Evelyn Ungen
Annual Shareholders' Meeting, Share Register
ESG Investors worldwide
+49 621 60-95664
evelyn.ungen@basf.com



Andrea Wentscher
Retail Investors
+49 621 60-42296
andrea.wentscher@basf.com



Thomas Wolf
Retail Investors
+49 621 60-43263
thomas.b.wolf@basf.com

General contact

BASF SE Investor Relations

COI – Z029
Wöhlerstraße 19
67063 Ludwigshafen
Germany

Phone: +49 621 60-48230
Fax: +49 621 60-22500

Email: ir@basf.com
Internet: basf.com/share

Half-Year Financial Report 2024

July 26, 2024

Quarterly Statement Q3 2024

October 30, 2024

Reporting on 2024 Financial Year

February 28, 2025

Quarterly Statement Q1 2025 / Annual Shareholders' Meeting 2025

May 2, 2025

Half-Year Financial Report 2025

July 30, 2025

Contact

BASF Investor Relations

Phone: +49 621 60-48230

Fax: +49 621 60-22500

Email: ir@basf.com

Internet: basf.com/share

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