



We create chemistry

Capital Market Story

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Cautionary note regarding forward-looking statements

This presentation contains forward-looking statements. These statements are based on current estimates and projections of the Board of Executive Directors and currently available information. Forward-looking statements are not guarantees of the future developments and results outlined therein. These are dependent on a number of factors; they involve various risks and uncertainties; and they are based on assumptions that may not prove to be accurate. Such risk factors include those discussed in Opportunities and Risks on pages 151 to 160 of the BASF Report 2021. BASF does not assume any obligation to update the forward-looking statements contained in this presentation above and beyond the legal requirements.

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Strategy implementation
in full swing

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Unique position to capture
growth in Asia

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electromobility and future
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Pushing the transition to a
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What is driving BASF's future growth?

Global trends provide opportunities for growth in the chemical industry

Population growth:

Driven by the emerging markets

+24%
2021 to 2050

Digitalization:

Rapid growth in volume of data

660
zettabytes in 2030

China the largest market:

Share of global chemical market

~50%
by 2030

Climate change:

Required reduction of greenhouse gas emissions to achieve the 2°C goal

-70%
by 2050 (baseline 1990)

Circular economy:

Non-recycled plastics worldwide

~200
million metric tons per year

Electromobility:

Growing demand for battery materials

~21%
per year
2021 to 2030

Unique position to deliver long-term value

Unique Verbund concept	Industry-leading innovation platform	Strong and expanding local presence in fast growing Asian market	Creating value to society and contributing to a sustainable development	Progressive dividend policy
<ul style="list-style-type: none"> ▪ 6 Verbund sites globally ▪ 232 additional production sites worldwide ▪ 7.3 million metric tons of CO₂ avoided globally in 2021 	<ul style="list-style-type: none"> ▪ €2.2 billion R&D expenses in 2021 ▪ ~10,000 employees in R&D ▪ Sales of ~€11 billion in 2021 with products launched during last 5 years 	<ul style="list-style-type: none"> ▪ 2 Verbund sites already ▪ ~70 production sites ▪ €21.2 billion¹ sales in 2021 ▪ Strong volume and earnings development of BASF in Greater China 	<ul style="list-style-type: none"> ▪ Target: 25% CO₂ emission² reduction by 2030 (compared with 2018) ▪ We aim to achieve net zero CO₂ emissions² by 2050 ▪ Achieve €22 billion in Accelerator sales by 2025 (already reached in 2021: €24.1 billion³) 	<ul style="list-style-type: none"> ▪ Aim to increase the dividend per share every year ▪ Dividend of €3.40 per share for 2021

¹ Sales in Asia Pacific by location of customer. Only includes sales from BASF entities fully consolidated according to IFRS 10/11

² Includes Scope 1 and Scope 2 emissions. In March 2021, we replaced our previous target of CO₂-neutral growth until 2030 (baseline 2018: 21.9 million metric tons of CO₂e) with a new, more ambitious climate protection target to reduce absolute CO₂ emissions by 25% compared with 2018 (new target: 16.4 million metric tons of CO₂e).

³ We already reached our 2025 sales target for Accelerator products in 2021. Consequently, we will update our product portfolio steering target over the course of 2022.

Snapshot of the current market environment

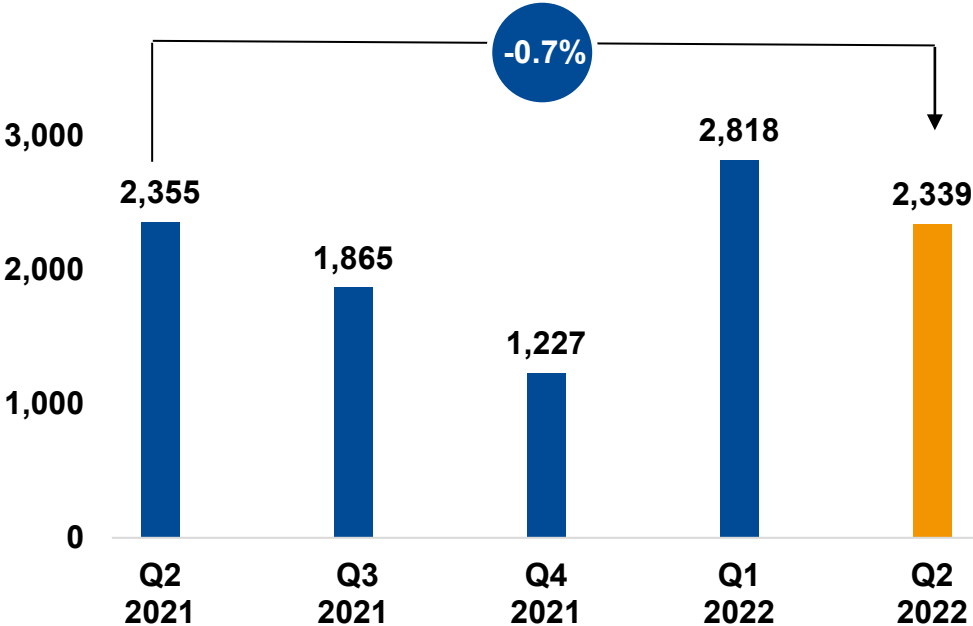
- The macroeconomic environment is characterized by a high degree of uncertainty regarding the short- and mid-term economic development
- In Q2 2022, demand from customer industries remained generally solid, except for automotive
- Supply shortages continue to limit automotive production; in Q2 2022, global automotive production remained on the level of Q2 2021 and declined by 6.0% compared with Q1 2022
- China's economic growth was negatively impacted by the zero-COVID strategy and the related lockdowns in the second quarter of 2022
- Given the inflationary environment, central banks started to raise interest rates, which in turn will dampen consumer spending



Q2 2022: BASF again with strong earnings despite continued high prices for raw materials and energy

- BASF's upstream and downstream businesses implemented further price increases to pass on higher prices for raw materials and energy
- Due to the corona-related lockdowns in China, sales volumes in the country declined in Q2 2022, mainly driven by lower volumes in April
- In Q2 2022, EBIT before special items reached the level of the prior-year quarter and amounted to €2.3 billion
- The strong earnings performance in Q2 2022 was driven by the Agricultural Solutions, Nutrition & Care and Industrial Solutions segments; Other also contributed

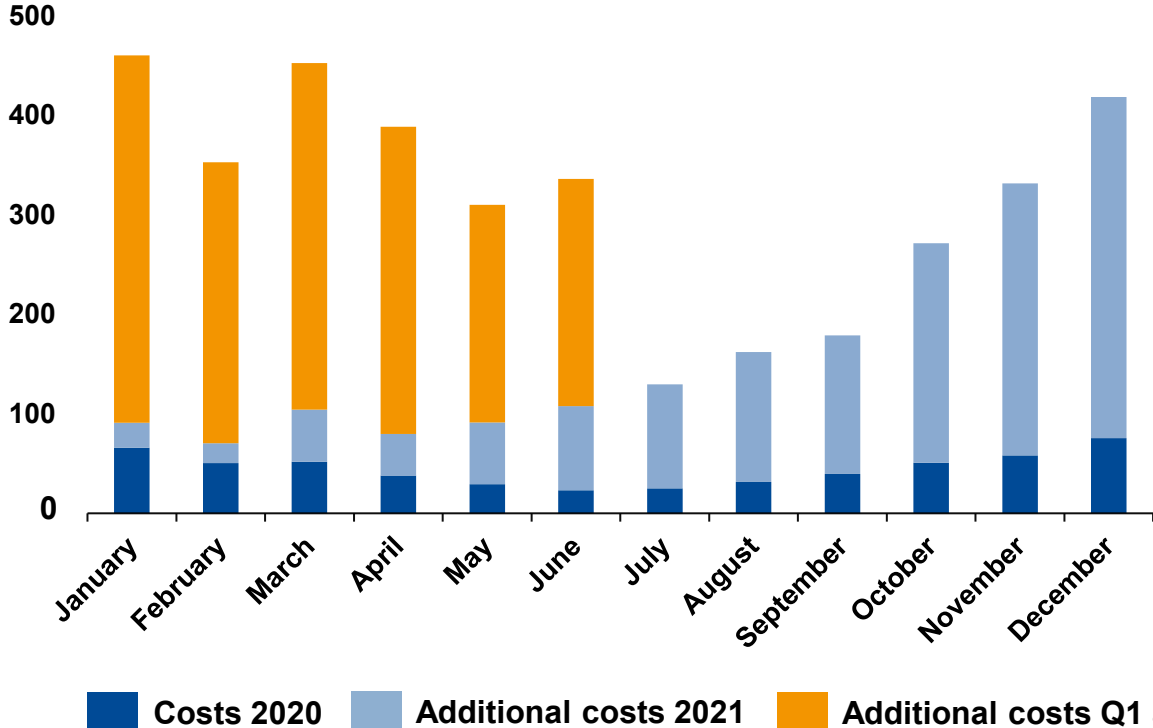
EBIT before special items
Million €



Natural gas prices in Europe remained at a very high level

Incremental natural gas spend in Europe

Million €

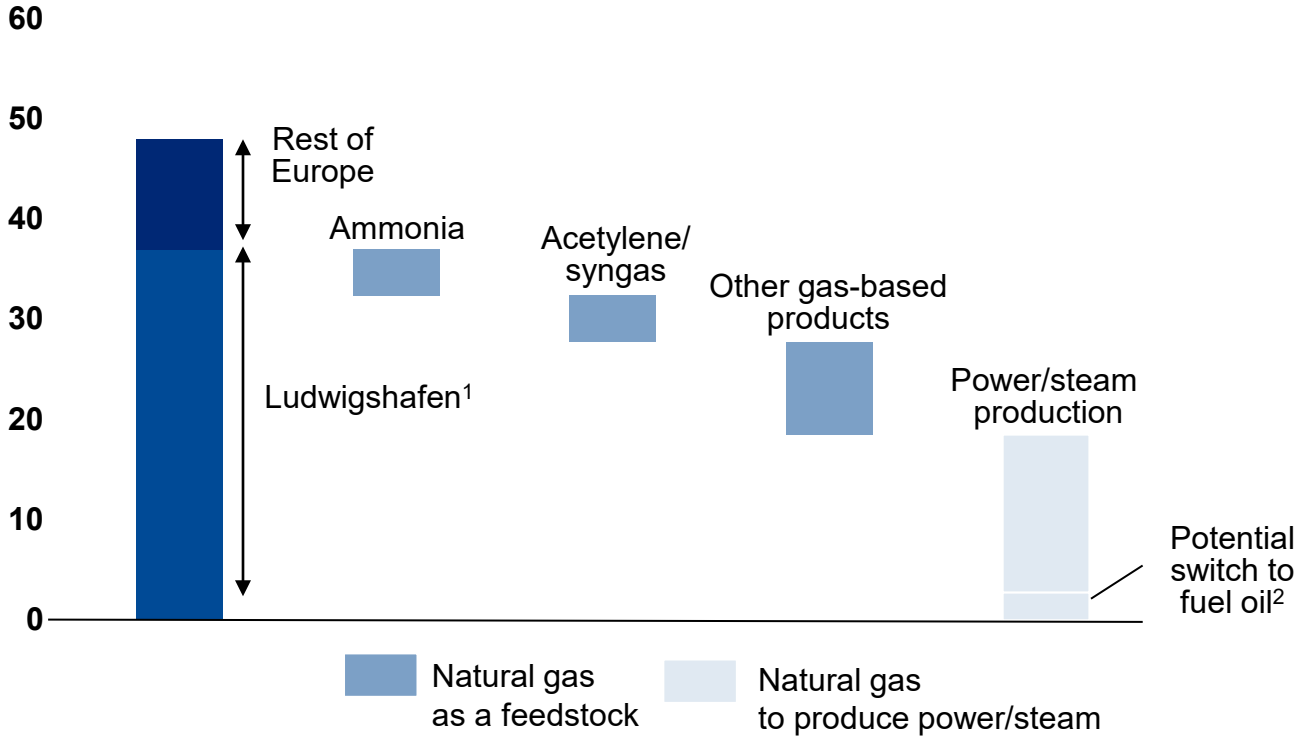


- Compared with Q1 2022, natural gas prices declined slightly in Q2 2022 but remained at a very high level
- Natural gas price burden for European BASF sites
 - Additional costs of ~€0.8 billion in Q2 2022 compared with Q2 2021
 - Additional costs of ~€1.0 billion in Q2 2022 compared with Q2 2020

Update on mitigation measures to reduce natural gas demand

BASF's natural gas demand in Ludwigshafen 2021

TWh

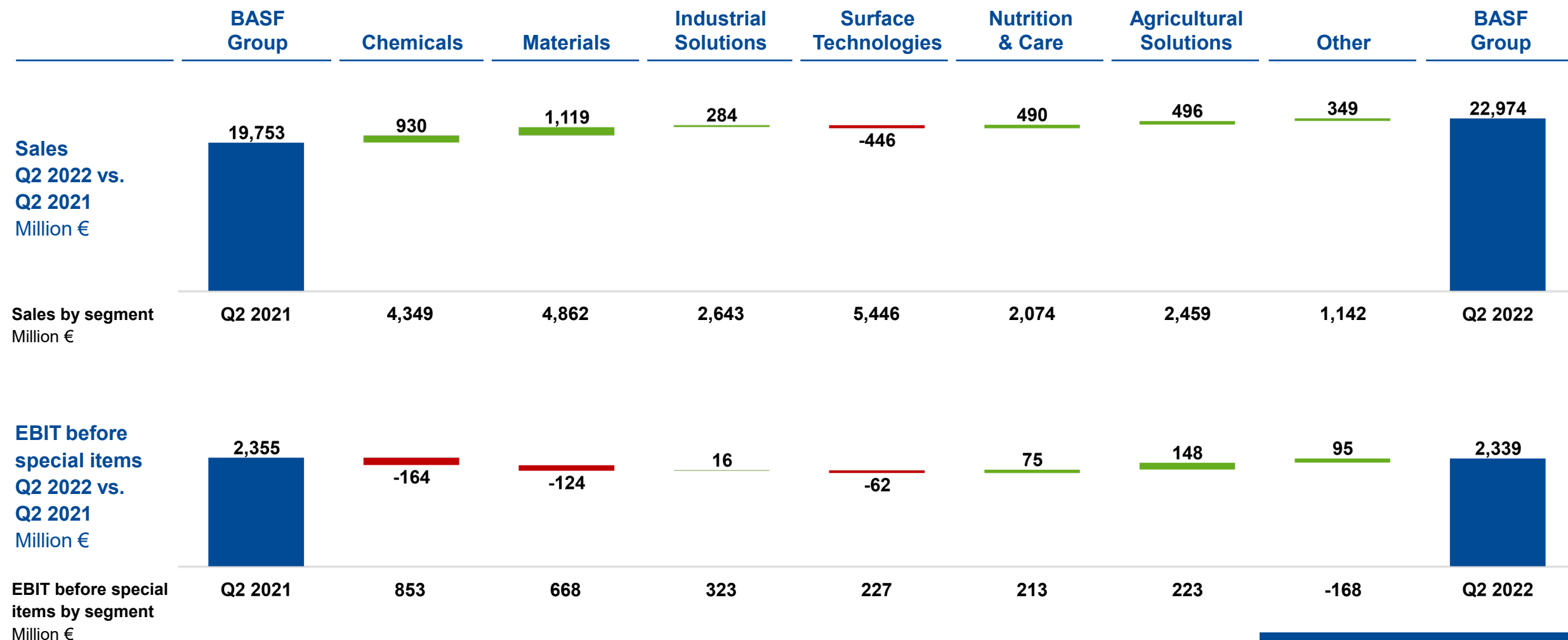


- **BASF's natural gas demand in Europe 2021**
 - ~48 TWh, thereof Ludwigshafen ~37 TWh
 - ~60% used for power/steam production and ~40% as feedstock

- **Mitigation measures**
 - Where technically feasible, preparations to substitute natural gas (e.g., by fuel oil) are progressing well and technical optimizations are in place
 - Proactive scenario development to optimize our production at European sites (utilization rate reduction of specific plants) as needed
 - Continued operation at the Ludwigshafen site is ensured down to 50% of BASF's maximum natural gas demand²

¹ Verbund site Ludwigshafen: 50% of natural gas used for power/steam production; 50% as feedstock
 ² Precondition is the sufficient availability of fuel oil

Q2 2022: Sales increased considerably; EBIT before special items at the high level of the prior-year quarter



BASF Group Q2 2022 and H1 2022: Financial figures

Financial figures	Q2 2022	Change	H1 2022	Change
	Million €	%	Million €	%
Sales	22,974	16.3	46,058	17.6
EBITDA before special items	3,293	2.4	7,036	10.0
EBITDA	3,396	6.2	7,105	11.4
EBIT before special items	2,339	-0.7	5,157	10.3
EBIT	2,350	1.5	5,135	11.0
Net income from shareholdings	443	.	-364	.
Net income	2,090	26.3	3,311	-1.8
Reported EPS	2.31	28.3	3.65	-0.5
Adjusted EPS	2.37	16.7	5.07	25.8
Cash flows from operating activities	1,228	-51.6	938	-53.4
Free cash flow	336	-81.0	-557	.

Cash flow development in Q2 2022 and H1 2022

	Q2 2022	Q2 2021	H1 2022	H1 2021
	Million €	Million €	Million €	Million €
Cash flows from operating activities	1,228	2,537	938	2,012
of which Changes in net working capital ¹	-1,661	9	-4,842	-2,764
Miscellaneous items	-247	-9	499	-344
Cash flows from investing activities	-639	323	-1,218	-112
of which Payments made for property, plant and equipment and intangible assets	-892	-767	-1,495	-1,223
Acquisitions / divestitures	369	1,125	379	1,118
Cash flows from financing activities	-1,386	-4,144	1,299	-3,434
of which Changes in financial and similar liabilities	2,061	-999	5,565	-282
Dividends	-3,191	-3,145	-3,191	-3,152
Free cash flow	336	1,770	-557	789

¹ In order to optimize precious metal stocks, BASF sells precious metals and concurrently enters into agreements to repurchase them at a set price. The cash flows resulting from the sale and repurchase are reported in cash flows from operating activities. Liabilities to repurchase precious metals amounted to €940 million as of June 30, 2022.

Outlook 2022 for BASF Group

Outlook 2022	Revised forecast	Previous forecast
Sales	€86 billion – €89 billion	€74 billion – €77 billion
EBIT before special items	€6.8 billion – €7.2 billion	€6.6 billion – €7.2 billion
ROCE	10.5% – 11.0%	11.4% – 12.6%
CO ₂ emissions	18.4 – 19.4 million metric tons	19.6 – 20.6 million metric tons

Underlying assumptions (previous assumptions in parentheses)

- Growth in gross domestic product: 2.5% (3.8%)
- Growth in industrial production: 3.0% (3.8%)
- Growth in chemical production: 2.5% (3.5%)
- Average euro/dollar exchange rate: \$1.07 per euro (\$1.15 per euro)
- Average annual oil price (Brent crude): \$110 per barrel (\$75 per barrel)



The BASF Group's segments in 2021



Chemicals¹

The Chemicals segment consists of the Petrochemicals and Intermediates divisions. The segment supplies BASF's other segments and third-party customers with basic chemicals and intermediates.

- Sales 2021: €13,579 million
- EBIT before specials items 2021: €3,092 million



Materials

The Materials segment is composed of the Performance Materials and Monomers divisions. The segment offers advanced materials and their precursors for the plastics and plastics processing industries.

- Sales 2021: €15,214 million
- EBIT before specials items 2021: €2,418 million



Industrial Solutions

The Industrial Solutions segment consists of the Dispersions & Resins and the Performance Chemicals divisions. The segment develops and markets ingredients and additives for industrial applications.

- Sales 2021: €8,876 million
- EBIT before specials items 2021: €1,006 million



Surface Technologies

The Surface Technologies segment comprises the Catalysts and Coatings divisions. The segment offers chemical solutions for surfaces such as battery materials and automotive coatings.

- Sales 2021: €22,659 million
- EBIT before specials items 2021: €800 million



Nutrition & Care

The Nutrition & Care segment comprises the Care Chemicals division and the Nutrition & Health division. The segment produces ingredients and solutions for consumer applications such as nutrition and personal care.

- Sales 2021: €6,442 million
- EBIT before specials items 2021: €497 million



Agricultural Solutions

The Agricultural Solutions segment is an integrated provider of seeds, crop protection and digital technologies and solutions.

- Sales 2021: €8,162 million
- EBIT before specials items 2021: €715 million

¹ BASF's ethylene value chain was reorganized as of January 1, 2022. In this connection, the polyolefins and styrenics businesses of the JV BASF-YPC Company Ltd., Nanjing, China, which were previously reported under Other, were allocated to the Petrochemicals division. The prior-year figures have been adjusted. Other not depicted on the slide: Sales 2021: €3,666 million, EBIT before special items 2021: -€761 million

Strategic alignment of BASF's segments

	Chemicals	Materials	Industrial Solutions	Surface Technologies	Nutrition & Care	Agricultural Solutions
Verbund synergies	<p>Catalysis</p> <p>Process technology</p> <p>Automotive industry</p> <p>Recycling and renewable raw materials</p> <p>Biosciences</p> <p>Formulation</p> <p>Digitalization and artificial intelligence</p>					
Strategic focus	Economies of scale in basic chemicals and intermediates	High-performance plastics	Additives platform	Surface technology platform	Ingredients for consumer products	Connected offer across technologies for farmers
Innovation and sustainability focus	Improved and new processes	Applications, recycled and bio-based materials	Polymer dispersions, resins	Battery materials, coatings	Biotechnology, natural active ingredients, formulations	Active ingredients, seeds and traits, digital solutions

Our unique Verbund concept is one of BASF's greatest assets with multiple benefits strengthening the portfolio

Production

- 7.3 million metric tons of CO₂ emissions avoided globally in 2021
- Integration enables drop-in solutions for bio-based and recycled feedstock for low-carbon products



Technologies

- Leverage technological advantages and innovation across all segments
- Unique expertise in developing and integrating new, low-emission technologies

Value Chains

- Ensure competitive supply of key raw materials and products to all segments while avoiding CO₂ emissions

Markets

- Create customer relevance through size and broad portfolio

Digitalization

- Harvest the advantages offered by digitalization across BASF, for example, by calculating product carbon footprints

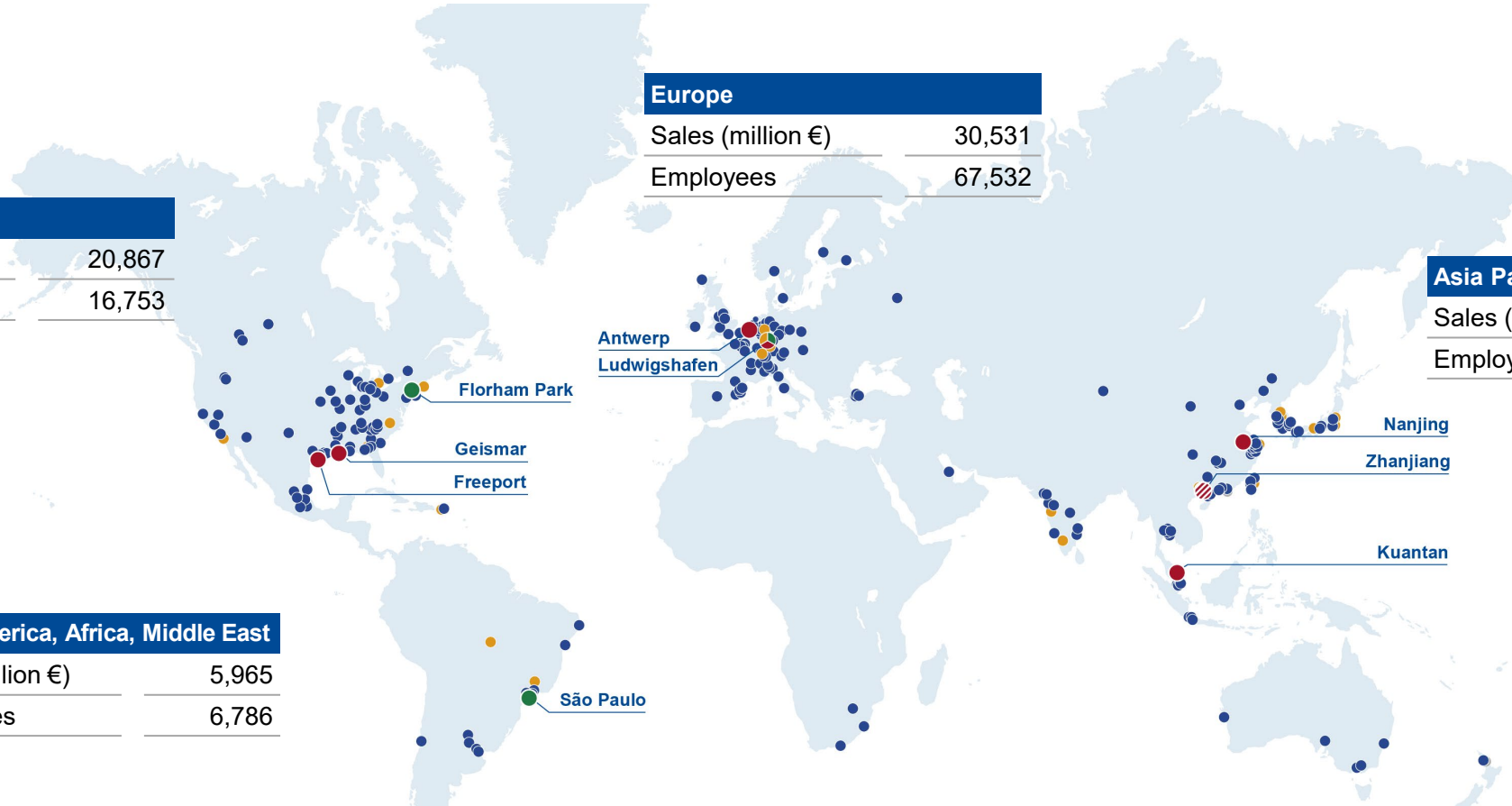
We operate close to our customers in all regions worldwide

North America	
Sales (million €)	20,867
Employees	16,753

Europe	
Sales (million €)	30,531
Employees	67,532

Asia Pacific	
Sales (million €)	21,234
Employees	19,976

South America, Africa, Middle East	
Sales (million €)	5,965
Employees	6,786



- Regional centers
- Selected sites
- Verbund sites
- Planned Verbund site
- Selected research and development sites

BASF sales by industry 2021

Direct customers	> 20% ¹	Chemicals and plastics Transportation
	10–20% ¹	Agriculture Consumer goods
	< 10% ¹	Construction Electronics Energy and resources Health and nutrition

¹ In each case



Use of cash – clear focus on long-term shareholder value

Organic growth

- €25.6 billion capex budget 2022–2026
- Around €2.2 billion in R&D expenses per year

Progressive dividend

- Aim to increase dividend per share every year
- Solid balance sheet and strong free cash flow support dividend policy

Portfolio upgrades

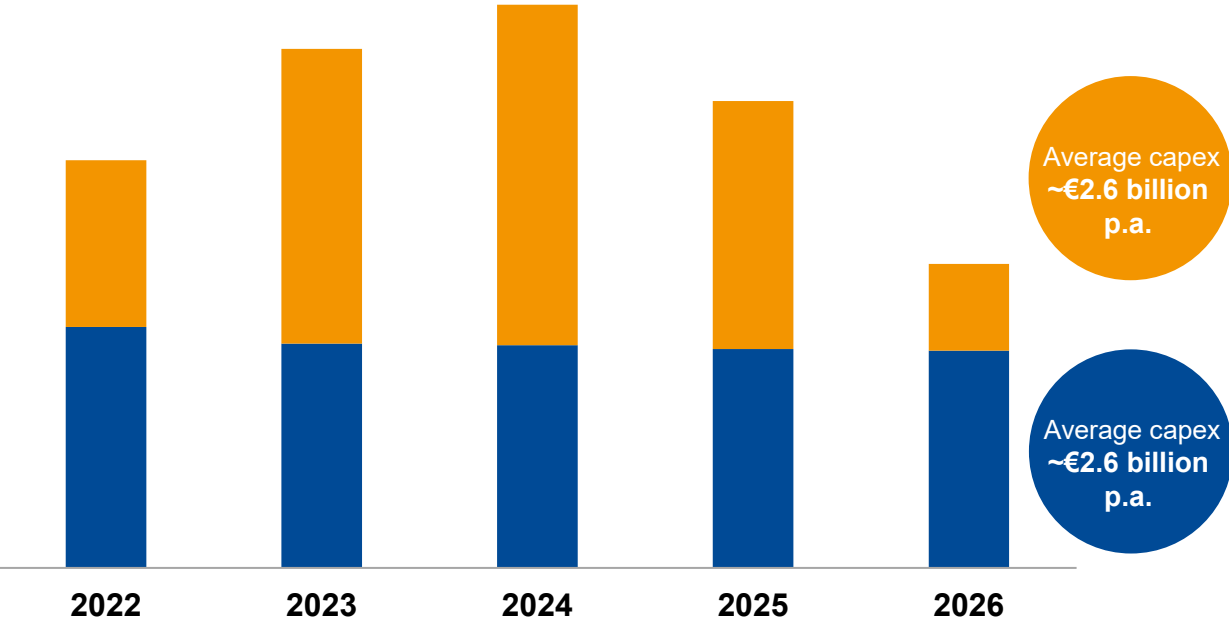
- Strengthen portfolio through selective M&A opportunities while maintaining price discipline
- Focus the portfolio with continued pruning measures

Share buybacks

- Share buyback program 2022–2023 with a volume of up to €3 billion
- Repurchased shares to be canceled, reducing the share capital accordingly

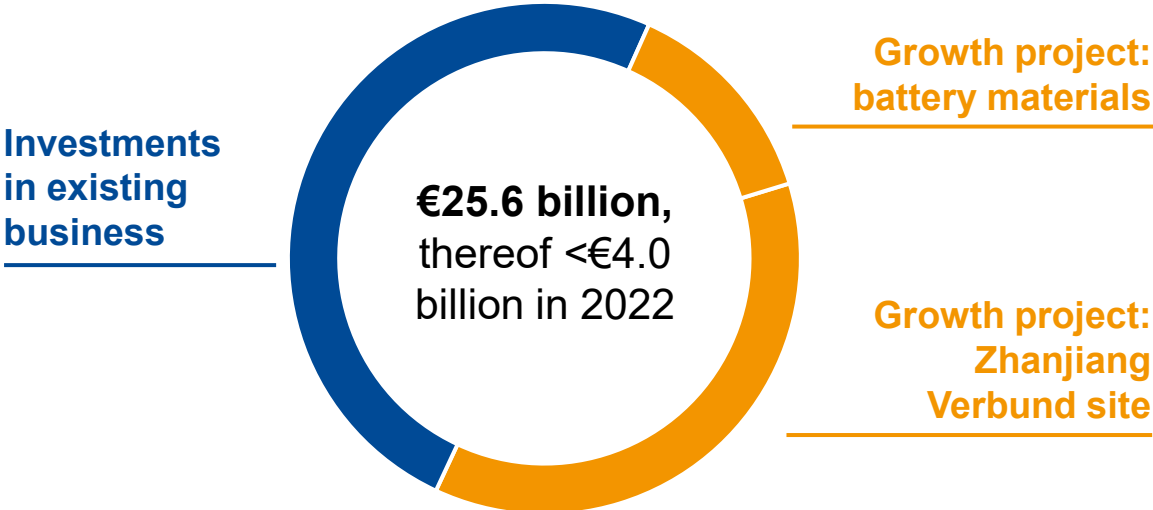
BASF Group: High capex discipline in existing business to support investments in growth projects

Capex budget by type of investment
Billion €, 2022–2026



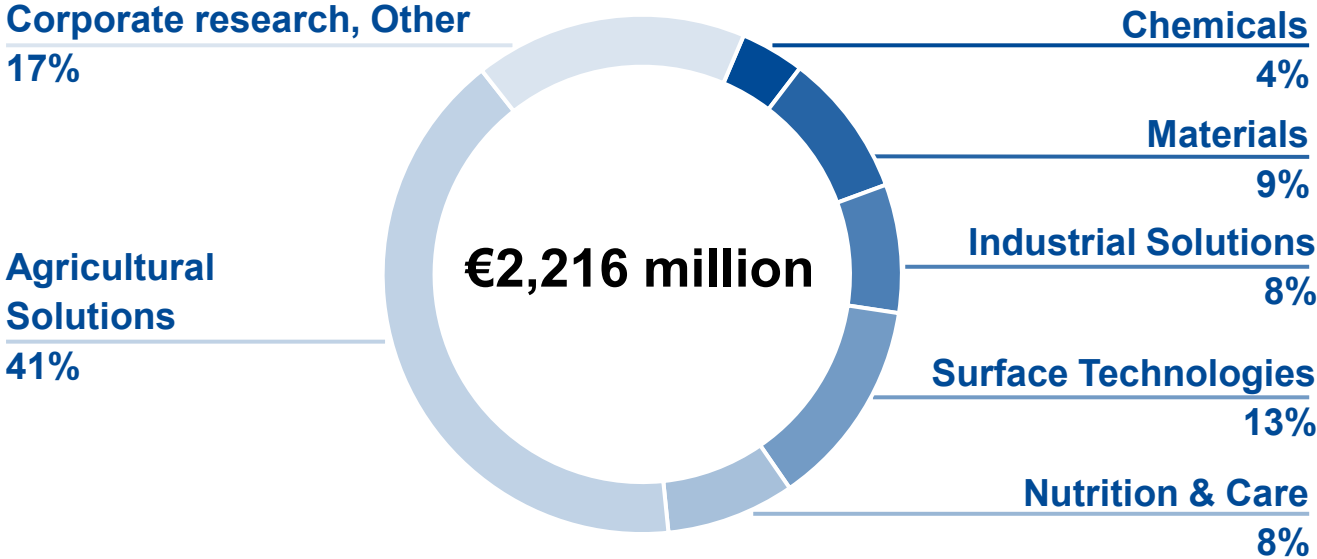
■ Growth projects: Zhanjiang Verbund site and battery materials
■ Investments in existing business

Capex budget by type of investment
Billion €, 2022–2026



BASF's industry-leading innovation platform ensures long-term organic growth

R&D expenses 2021



Key facts 2021

- R&D expenses to sales ratio 2.8%
- Commitment to R&D with annual spending of ~€2.2 billion
- ~10,000 employees in R&D
- ~820 new patents filed in 2021
- Research Verbund: 8 Academic Research Alliances are complemented by cooperations with ~280 universities and research institutes
- ~€11 billion sales generated from R&D activities with products launched during last 5 years
- Accelerator sales of €24.1 billion¹ in 2021
- Peak sales potential of BASF's Agricultural Solutions innovation pipeline of >€7.5 billion between 2021 and 2031

¹We already reached our 2025 sales target for Accelerator products in 2021. Consequently, we will update our product portfolio steering target over the course of 2022.



Attractive shareholder return

– clear commitment to progressive dividend policy

Dividend per share

€

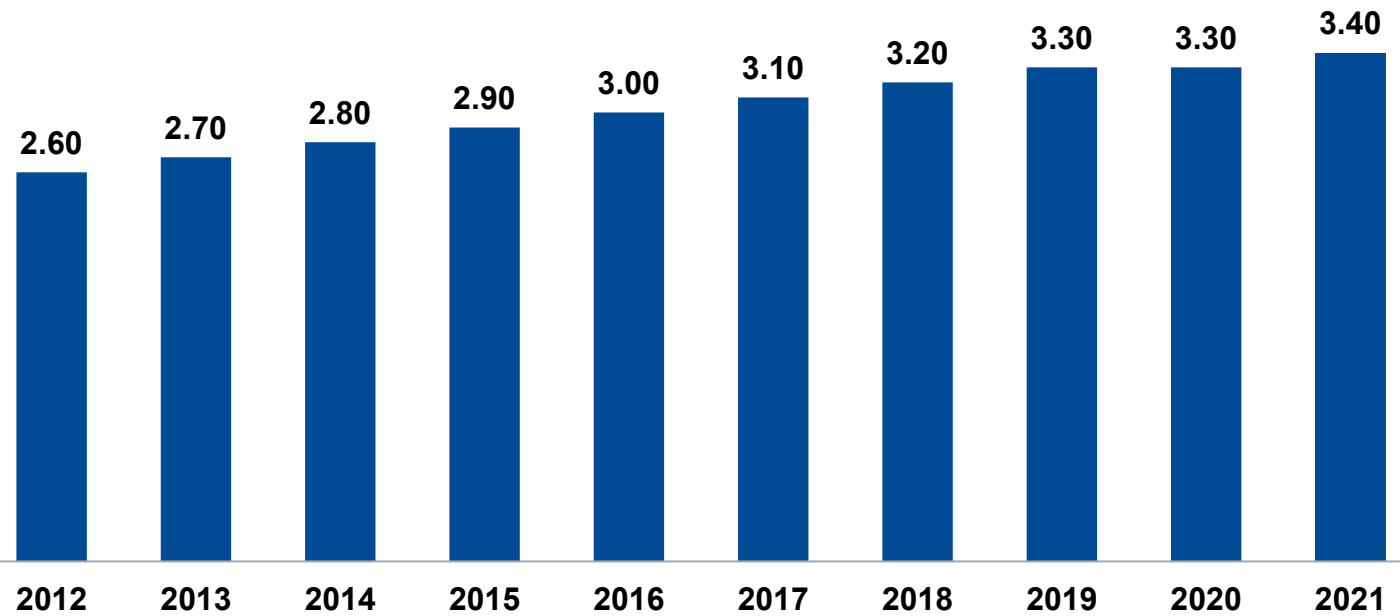
4.00

3.00

2.00

1.00

0.00



Year	Yield ¹
2012	3.7%
2013	3.5%
2014	4.0%
2015	4.1%
2016	3.4%
2017	3.4%
2018	5.3%
2019	4.9%
2020	5.1%
2021	5.5%

Key facts 2021

- Dividend of €3.40 per share, an increase of 10 euro cents
- In total, we paid out €3.1 billion, which was fully covered by our free cash flow of €3.7 billion
- Dividend yield of 5.5% based on the share price of €61.78 at year end 2021

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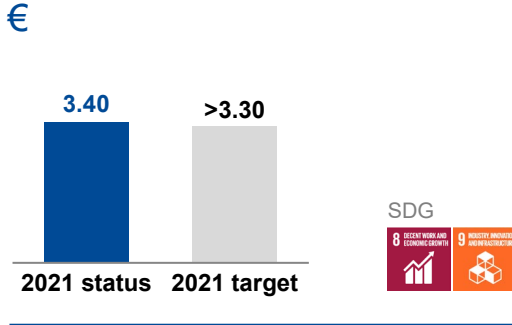
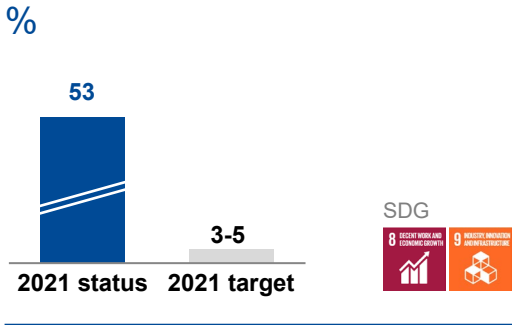
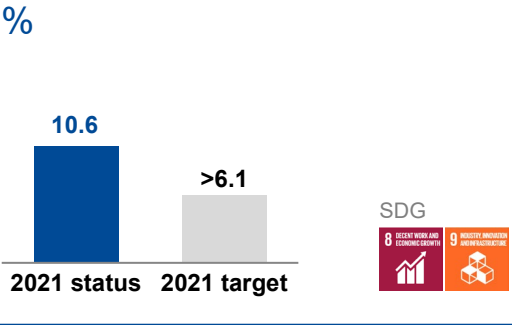
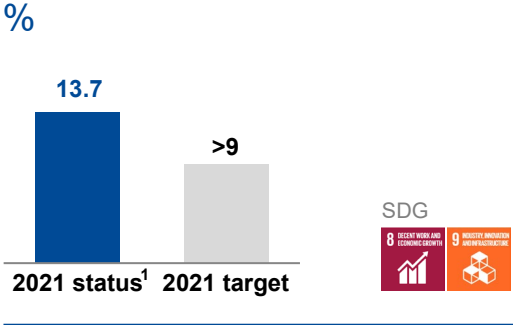
Pushing the transition to a
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Reporting

BASF Group: Targets and target achievement 2021 (I/II)

Profitable growth



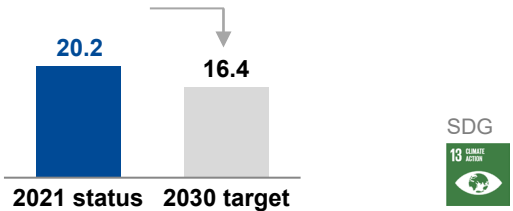
Achieve a **return on capital employed (ROCE)** considerably **above the cost of capital percentage** every year

Grow **sales volumes** faster than **global chemical production** every year

Increase **EBITDA before special items** by **3% to 5%** per year

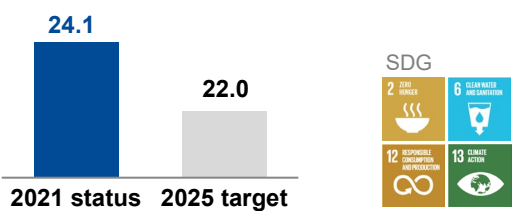
Increase the **dividend per share** every year based on a **strong free cash flow**

Effective climate protection



Reduce our **absolute CO₂ emissions²** by 25% by 2030 (development of carbon emissions compared with baseline 2018)

Sustainable product portfolio



Achieve **€22 billion** in **Accelerator sales** by 2025³

¹ BASF's ethylene value chain was reorganized as of January 1, 2022. In this connection, the polyolefins and styrenics businesses of the joint venture BASF-YPC Company Ltd., Nanjing, China, which were previously reported under Other, were allocated to the Petrochemicals division. The prior-year figures have been adjusted. The operating assets were also reallocated as part of the reorganization and increased the Chemicals segment's assets by €114 million as of December 31, 2021. Overall, the adjustments improved the BASF Group's ROCE for 2021 by 0.2 percentage points to 13.7%.

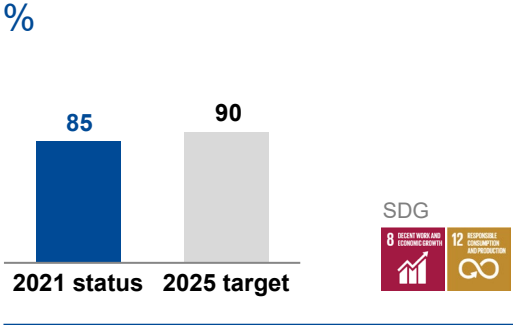
² Includes Scope 1 and Scope 2 emissions. In March 2021, we replaced our previous target of CO₂-neutral growth until 2030 (baseline 2018: 21.9 million metric tons of CO₂e) with a new, more ambitious climate protection target to reduce absolute CO₂ emissions by 25% compared with 2018 (new target: 16.4 million metric tons of CO₂e).

³ We already reached our 2025 sales target for Accelerator products in 2021. Consequently, we will update our product portfolio steering target over the course of 2022.

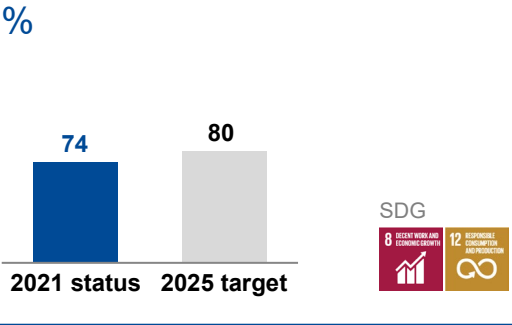
↘ Reduction target

BASF Group: Targets and target achievement 2021 (II/II)

Responsible procurement

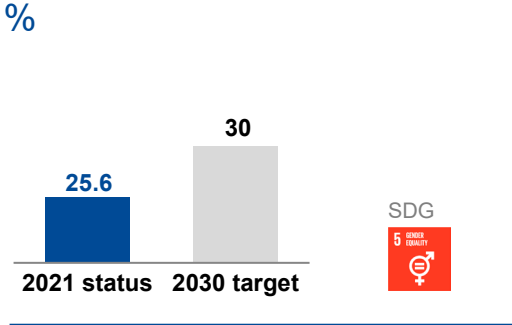


Cover **90%** of our relevant spend with **sustainability evaluations** by 2025

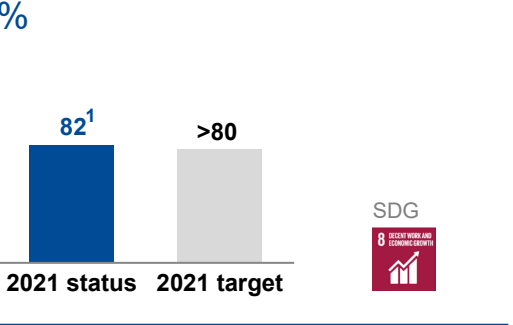


Have **80%** of our suppliers **improve** their **sustainability performance** upon re-evaluation

Employee engagement and diversity

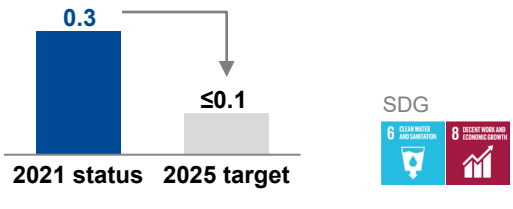


Increase the proportion of **women in leadership positions** with disciplinary responsibility to **30%** by 2030

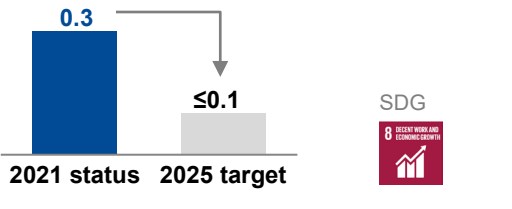


More than **80%** of our **employees** feel that at BASF, they can **thrive** and **perform at their best**

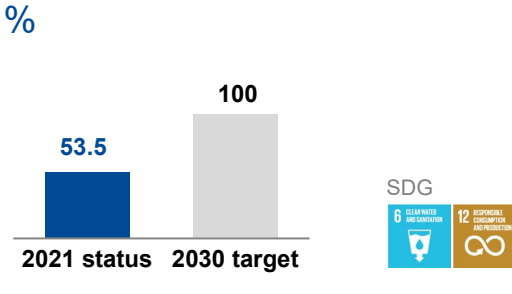
Resource efficiency and safe production



Reduce worldwide **process safety incidents** per 200,000 working hours to **≤ 0.1** by 2025



Reduce the worldwide **lost-time injury rate** per 200,000 working hours to **≤ 0.1** by 2025



Introduce **sustainable water management** at our **production sites in water stress areas** and at our **Verbund sites** by 2030

¹ We regularly calculate the employee engagement level. The most recent survey was conducted in 2020. The next survey is planned for spring 2022.



We have consistently refocused our portfolio toward innovative growth businesses¹

Acquisitions

- Functional crop care
- Personal care and food ingredients
- Omega-3 fatty acids
- Enzymes
- Battery materials
- Specialty plastics
- Refinish coatings
- Surface treatment
- Seeds and crop protection
- Polyamide business

~€9.5 billion sales in emerging and innovation-driven businesses



Divestitures

- Styrenics
- Fertilizers
- Natural gas trading and storage
- Custom synthesis business
- Textile chemicals
- Polyolefin catalysts
- Industrial coatings
- Leather chemicals
- Water and paper chemicals
- Oil & gas
- Construction chemicals
- Pigments business

~€29.7 billion sales in businesses with decreased differentiation potential

Clear acquisition criteria

Strategic acquisition criteria

We want to acquire businesses which ...

- create more value as part of BASF's Verbund
- help achieve relevant market positions
- drive innovation or technological differentiation
- enable new and sustainable business models

Financial acquisition criteria

We want to acquire businesses which ...

- provide a return on capital employed above the WACC after full integration into BASF Group
- are EPS accretive by year three at the latest
- contribute to growth of EBITDA before special items

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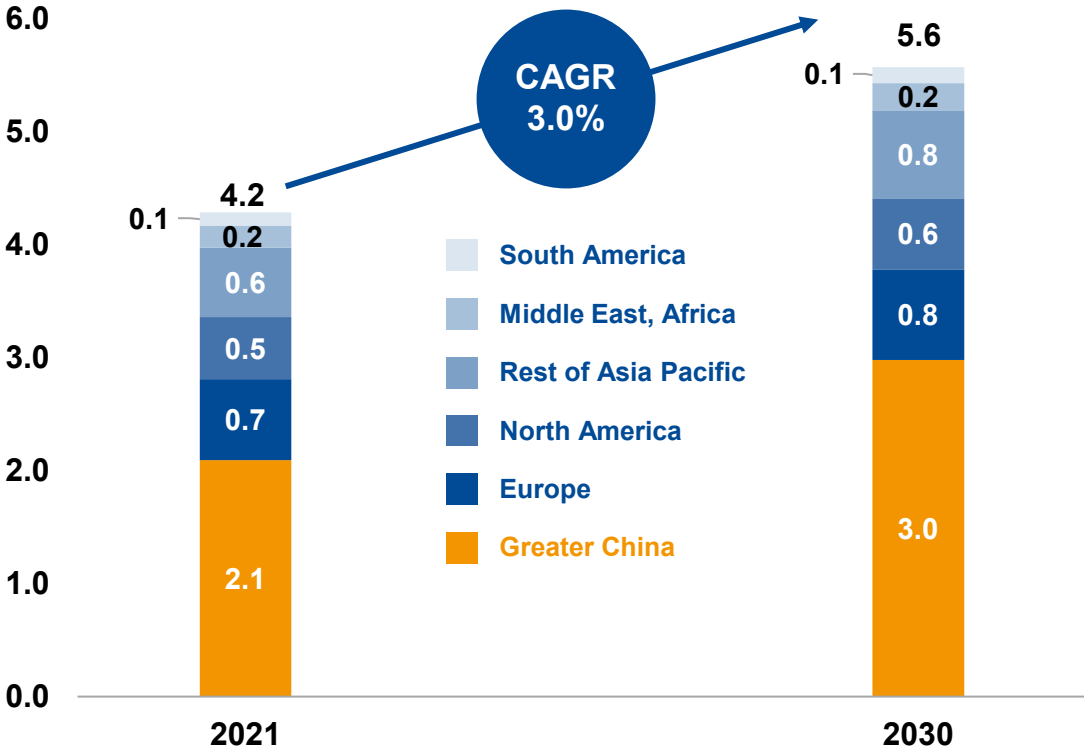
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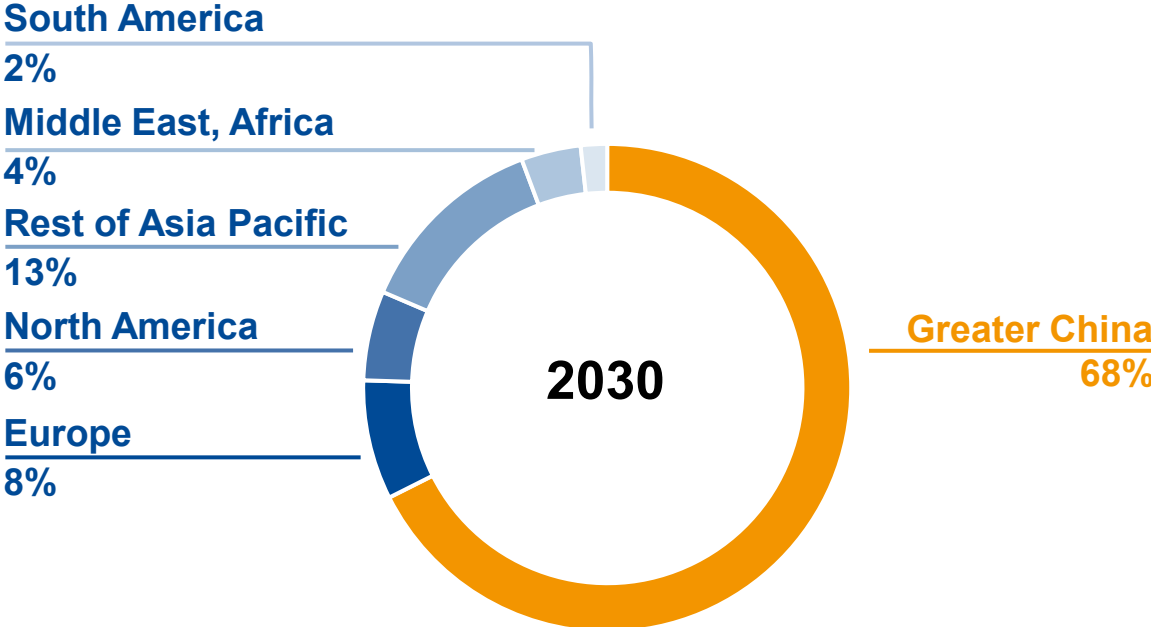
Reporting

China is the major growth driver for global chemical production: Two-thirds of growth will come from Greater China by 2030

Real chemical production¹
trillion US\$



Share of absolute chemical production growth by region
%



Source: BASF ¹ Real chemical production excluding pharmaceuticals, US\$ base year 2015
Figures may not add up due to rounding effects.

BASF's Verbund site in Nanjing is a prime example of our success in China

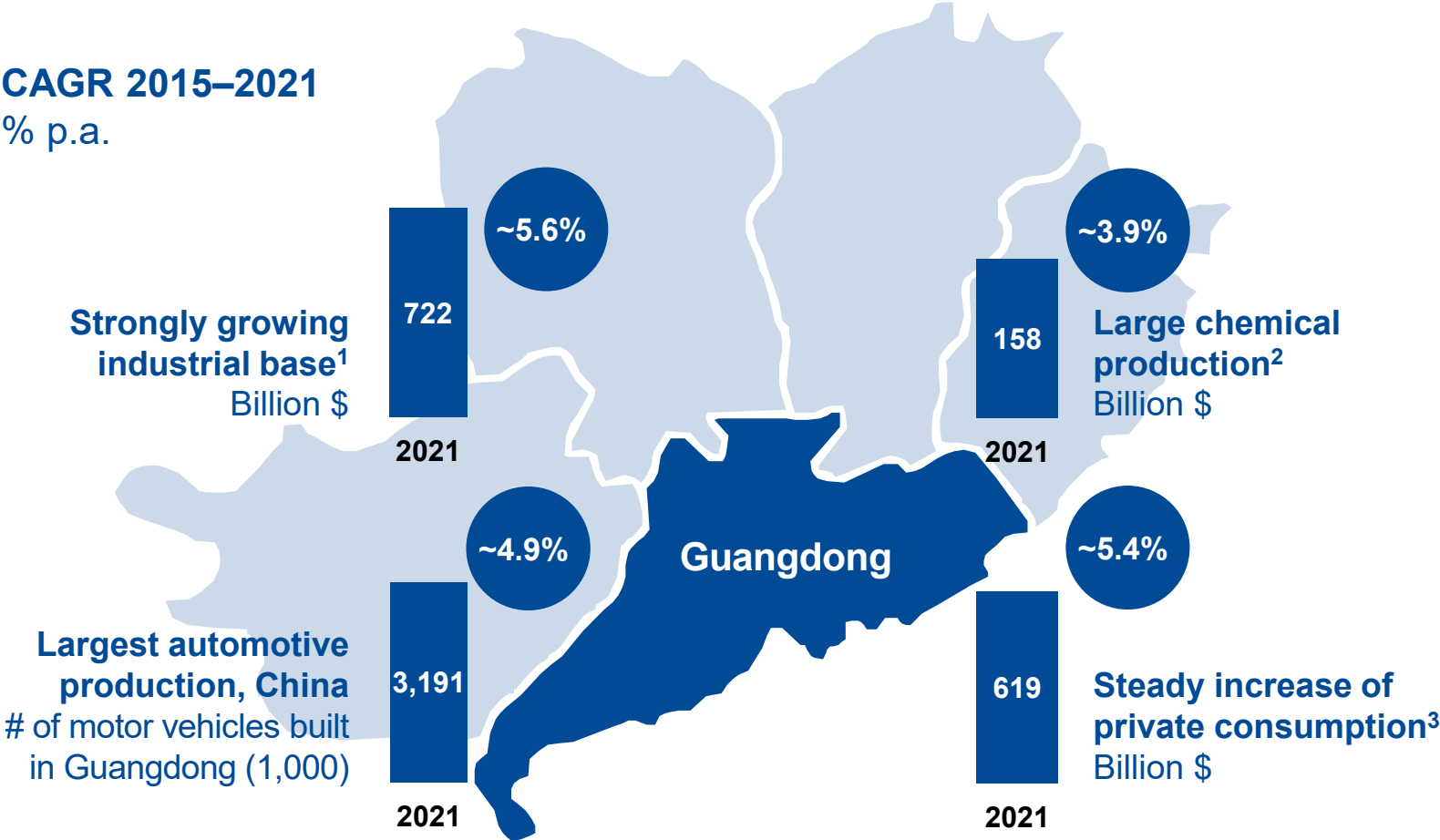


- **50:50 joint venture with Sinopec** founded in 2000, start-up in 2005, major expansions in 2011 and 2014
- Scope has **continuously expanded** over the years toward longer and more diversified value chains
- **Third-largest BASF site**, US\$5.8 billion gross investment (100%)
- Capacity: ~3 million metric tons per year; **33 production plants** including steam cracker
- Strong focus on operational excellence and consistent plant maintenance resulted in **best-in-class asset effectiveness**
- With **26% EBITDA margin¹** BASF-YPC is one of the most profitable BASF sites

Guangdong is home to key customers from fast-growing industries

CAGR 2015–2021

% p.a.



Market characteristics

- Over 126.2 million residents in Guangdong province (2020)⁴
- GDP Guangdong (2021): ~\$1.9 trillion (exceeding South Korea)
- GDP growth from 2021–2036: 5–6% p.a.
- Key customer industries: transportation, consumer goods, home and personal care, electronics
- Chemical products are generally undersupplied from local production

¹ Real secondary industry output, 2015-based. Guangdong Bureau of Statistics
² Real chemical gross output, 2015-based, inferred by gross output/value added ratio for China
³ Real private consumption, 2015-based. National Bureau of Statistics with IHS forecast
⁴ Guangdong Statistical Yearbook 2021



Location in Zhanjiang enables BASF to capture long-term profitable growth in the fastest growing chemical market worldwide



- **Customers:** Proximity to the economic centers of China's fastest growing province Guangdong; shortest sea routes to Southeast Asia
- **Excellence in production:** Integrated Verbund platform, cutting edge technologies, smart solutions, deep seaport, world-class logistics
- **Developing downstream value chains:** BASF will focus on products that are in high demand, with options for further expansion
- **Differentiating from competitors beyond products:** Front-runner position in sustainability and circular economy
- **Leveraging industry ecosystems:** BASF will benefit from collaborations with neighbors and government incentives
- **Foreign trade advantages:** Guangdong province intends to set up Donghai Island as a free trade zone

Main construction phases of the new Verbund site in Zhanjiang, China – stepwise approach

Initial phase
on stream: 2022–2023

First downstream plants:
Performance Materials for auto-
motive and consumer industries

**Engineering plastics
and thermoplastic
polyurethanes**

Phase 1
start-up: as of 2025

Heart of the Verbund:
**Petrochemicals plus further
downstream plants**

**Steam
cracker**

C2 value chain

C3 value chain

C4 value chain

Phase 2
start-up: as of 2028

**Verbund expansion
and diversification**

**Additional
downstream plants**

Backward integrated into world-scale
upstream plants to achieve Verbund
synergies in downstream value chains

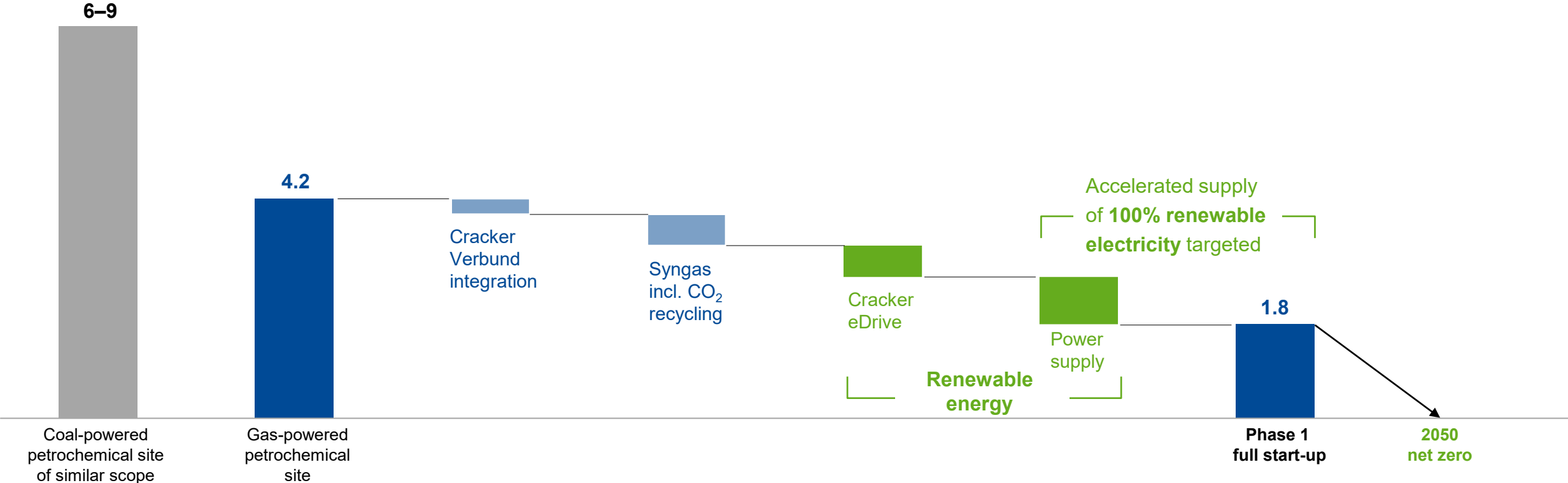
Update on progress

- First downstream plant is currently starting up
- Construction of phase 1 plants started following final approval
- Stepwise construction approach allows for flexibility, especially with regard to phase 2

Verbund site Zhanjiang uses latest technologies to reduce CO₂ footprint compared with standard gas-powered petrochemical site

Projected CO₂ emissions of BASF at Verbund site in South China

Million metric tons



Key financials of BASF's new Verbund site in Zhanjiang

Projected key financials by 2030



- The **greenfield character** of the new Verbund site results in a higher share of infrastructure investments compared with a brownfield project
- Infrastructure investments will be **diluted with future investments/expansions**
- The new Verbund site will be BASF's **key platform for long-term profitable and sustainable growth** in China even beyond phase 1 and phase 2

BASF's new Verbund site in Zhanjiang: Key takeaways

China's macroeconomic environment is robust and develops toward more self-sufficiency and sustainability

Guangdong province is the economic growth engine of China and a powerhouse of BASF's key customer industries

BASF is very well positioned to capture future growth in China by leveraging its unique Verbund know-how and longstanding relationships

BASF has a proven track record of strong top line and earnings growth in Greater China

The new Verbund site will be a **key platform for long-term profitable and sustainable growth** of BASF Group

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sustainable economy

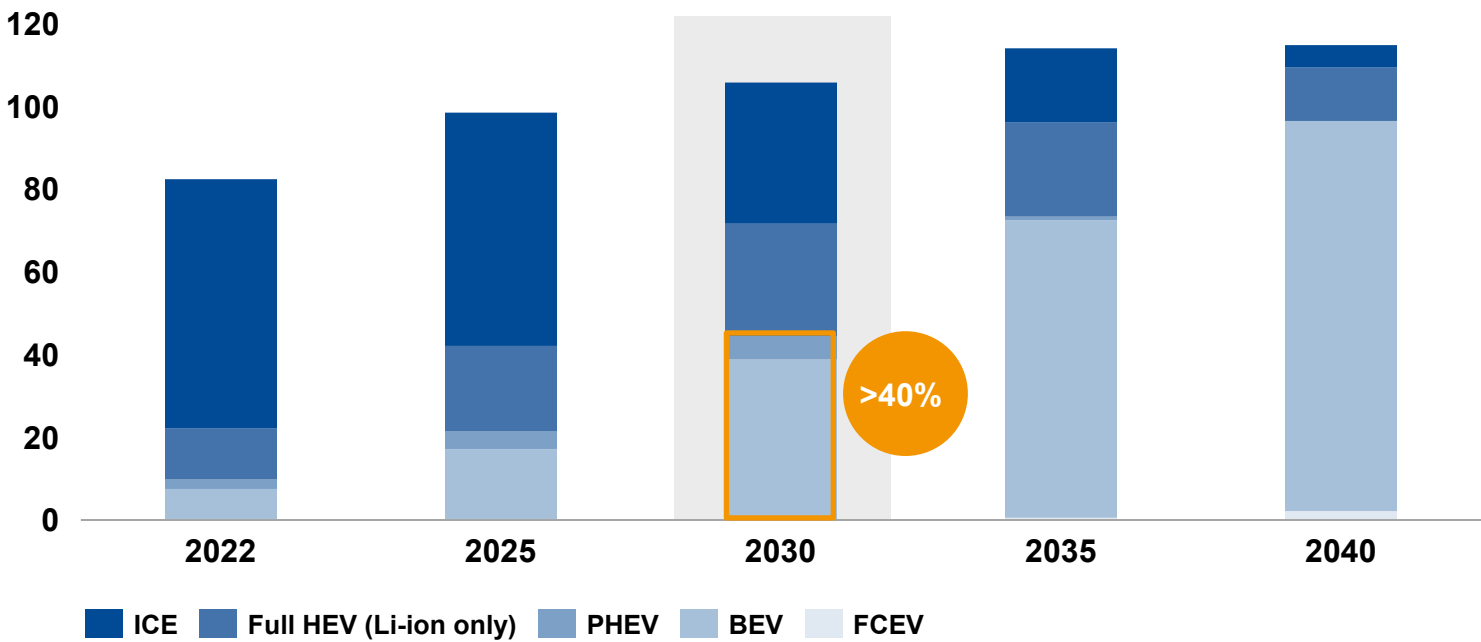
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Reporting

The automotive industry is in the middle of a major transformation towards electromobility

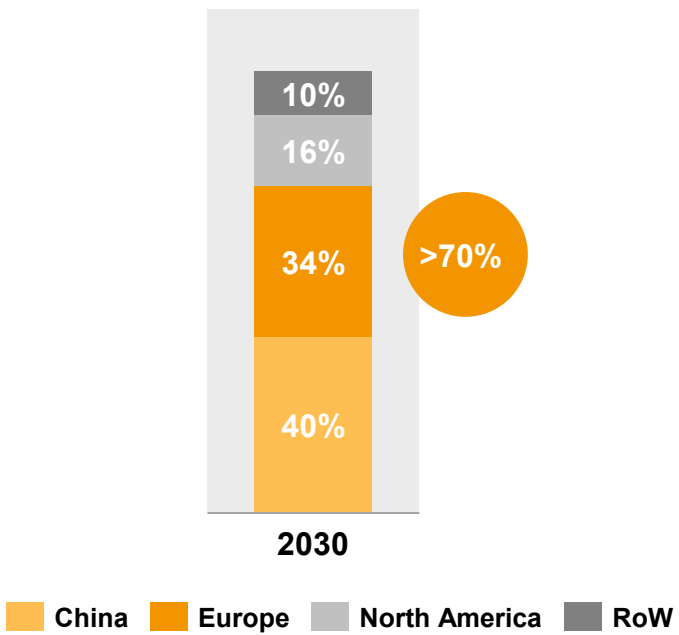
Powertrain development

Light-duty vehicle production volume [million units]



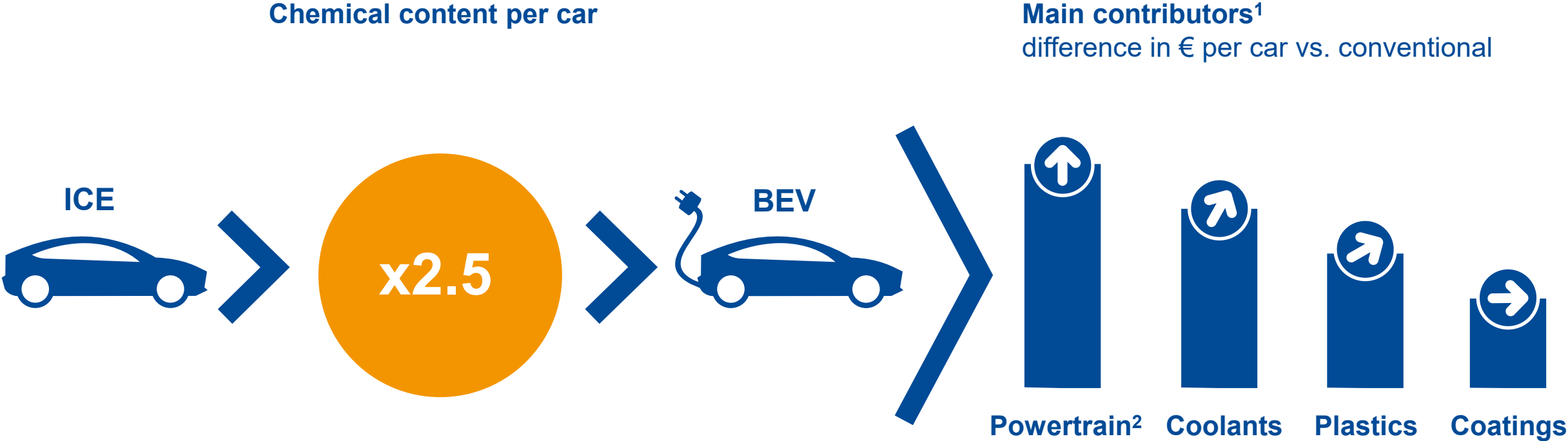
Regional BEV split

[%]



By 2030, we expect that >40% of all new cars will be BEVs and PHEVs with China and Europe representing >70% of global demand

The chemical content per car is higher in a BEV compared to ICE, with CAM as the single largest growth opportunity



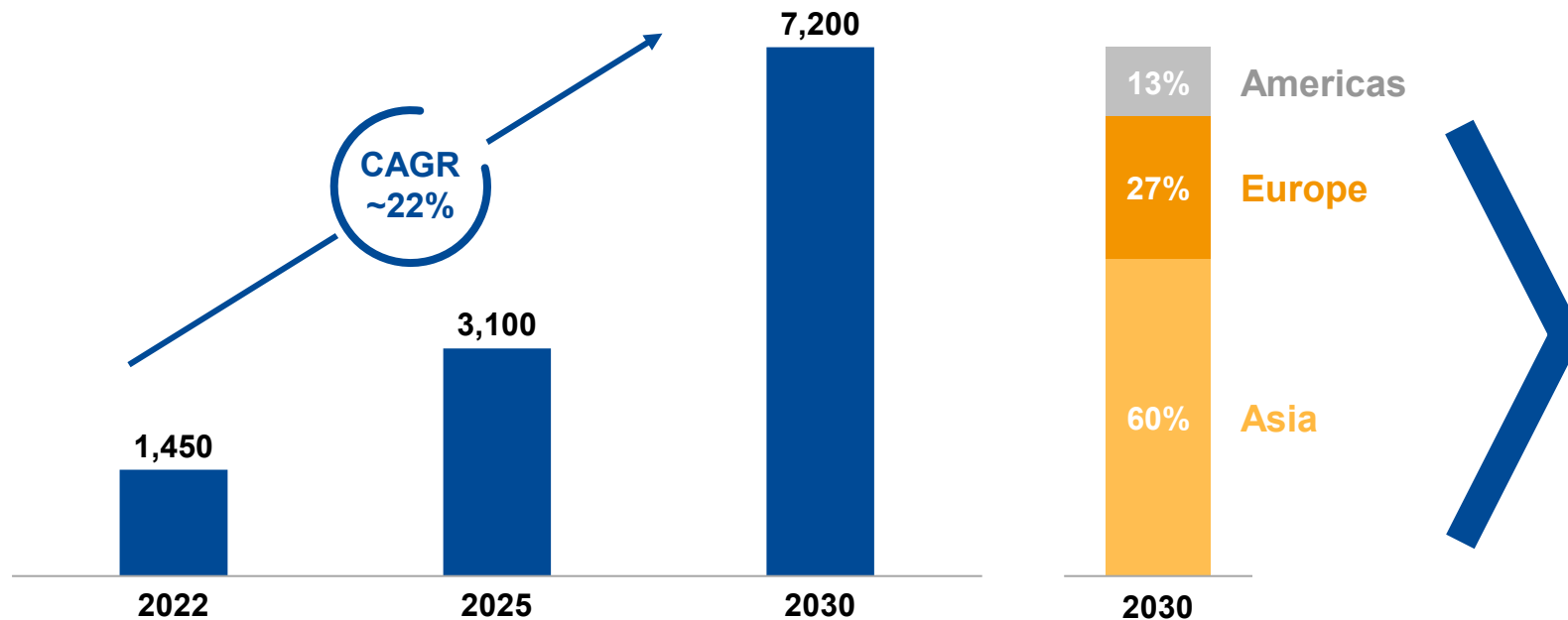
The cathode active material (CAM) as key component of any battery cell more than doubles the chemical content which can be found in today's average ICE vehicle

¹ Only representative for relative change in projected sales
² Emission catalyst vs. cathode active material (both incl. metals)

The market for CAM will grow by ~22% per year and reach a total size of 7,200 kt by 2030

Global CAM market forecast¹

kt



Rapid growth of global EV demand ...



... accelerates the need for global CAM capacity investments and ...



... drives demand for base metals (i.e., Ni, Co, Li)



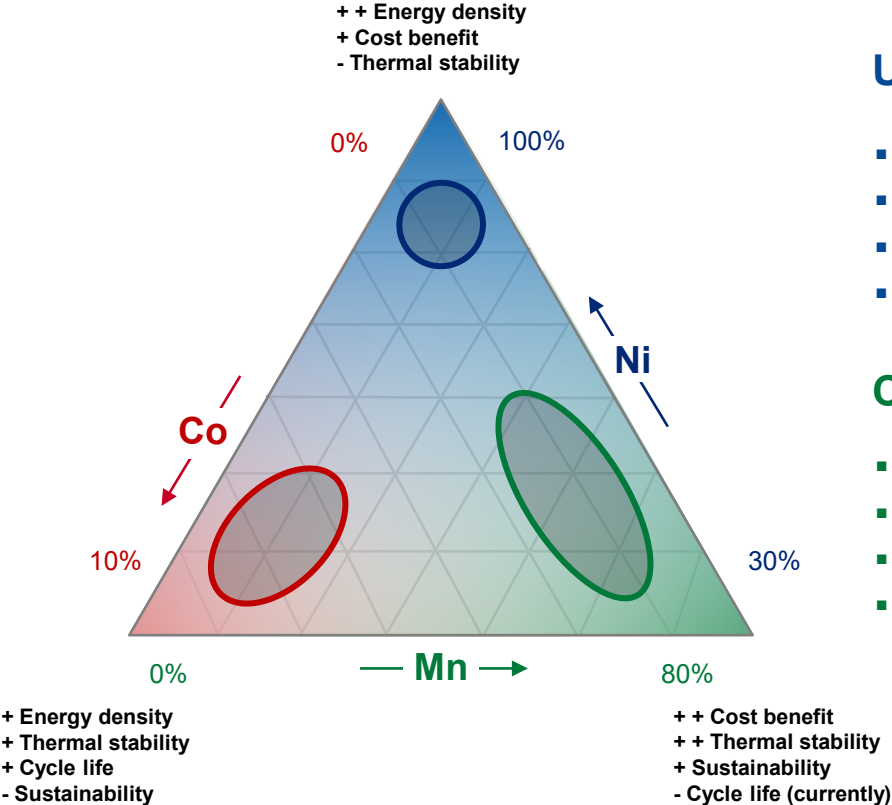
CAM market size expected to reach €150–200 billion by 2030, driven by battery performance, safety and cost aspects – which are all key parameters for BEVs

¹ All applications (e-mobility, energy storage systems, consumer electronics) and all cathode chemistries; market size can vary significantly due to volatility in metal prices; status as of September 2022

Product innovation enables the broadest CAM portfolio in the industry, and we continue to add new solutions

HED™ products

- High energy density NCA and NCM cathode materials
- Ni content ranging from 60% to >90%
- Already used in xEV applications today



Ultra-high Ni

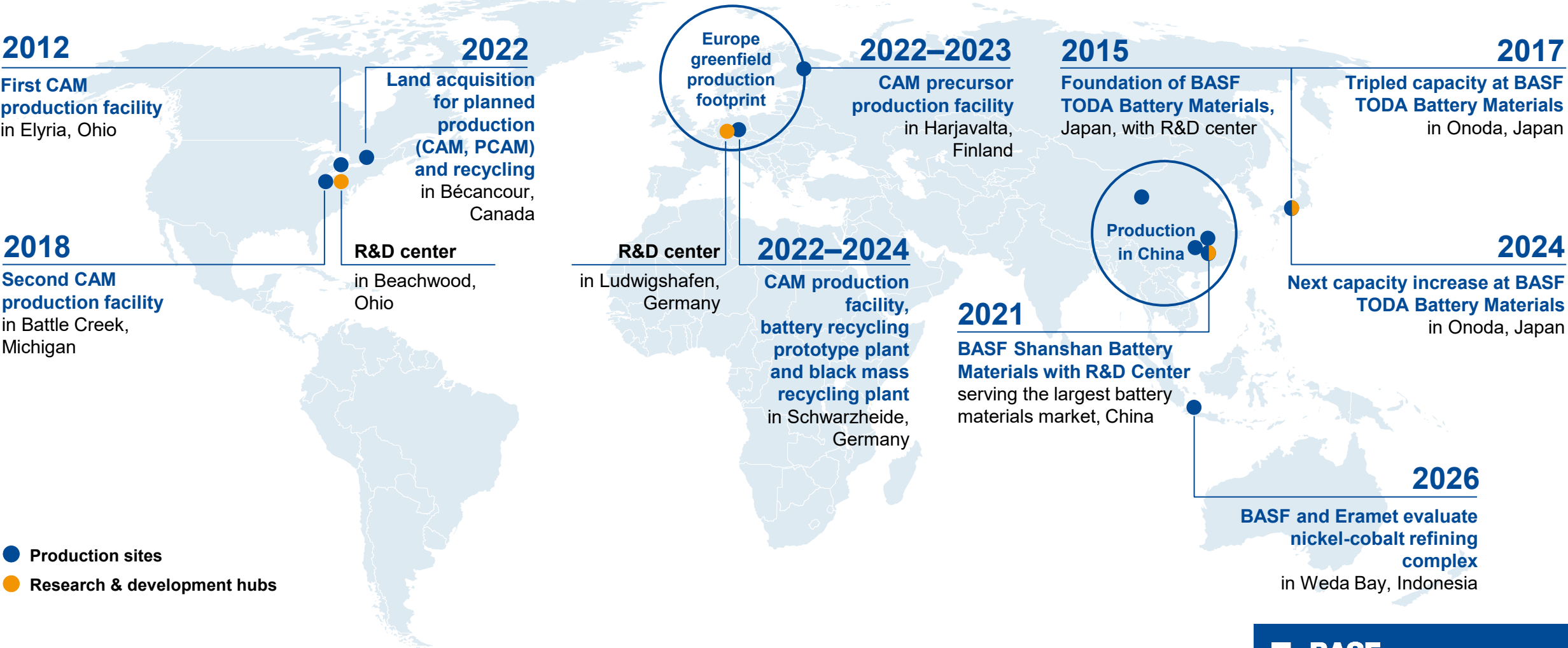
- Ultra-high Ni CAM, ≥220 Ah/kg
- Ni >90%, Co <5%
- Up to stabilized LNO
- Pushing boundaries for high-performance applications

Co-free CAM

- Ni-rich NMx
- Over-lithiated Mn-rich, e.g., NCM-307
- Focus on lower cost and improved safety
- Candidate for mass market entry due to price advantage

Our technology toolbox offers customized solutions for all cell formats and provides a basis for innovations beyond classical lithium-ion batteries

BASF has production assets and R&D hubs in close proximity to the most important BEV markets in every region



The Battery Materials business will become a significant earnings contributor to the BASF Group

>€1.5 billion sales
by 2023

>€7 billion sales
by 2030

>10%

market share
targeted

>30%

EBITDA bsi margin
(excl. metals)

~€3.5–4.5 billion

capital expenditure
2022–2030

- Continue to ramp up existing sales of the **CAM portfolio** and **secure further commercial outlets**
- Build on **customer proximity** with our **domestic production footprint** to meet customer needs
- Realize new business opportunities and further cost reductions with **continued product development**
- Utilize our broad knowledge of the industry to **support the ongoing transformation** of the sector

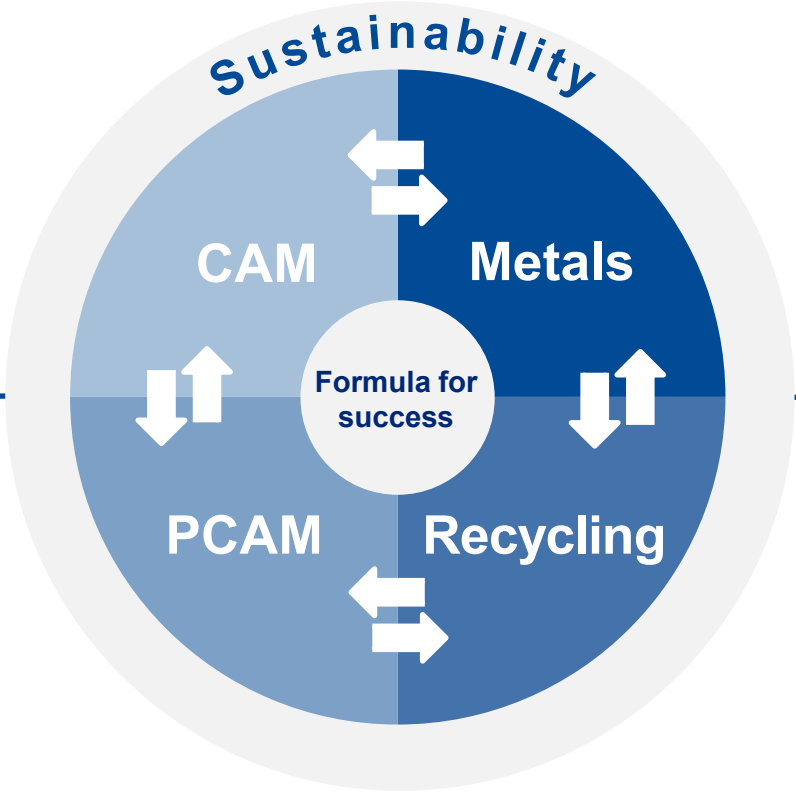
BASF Battery Materials: Key takeaways

▪ Best-in-class CO₂ footprint

▪ Closing the loop

- Broad CAM product offering
- Strong IP position
- Extensive R&D capabilities

- Unique expertise in PCAM chemistry
- Make-or-buy optionality with a global production footprint



- Domestic sourcing and production
- Secure and sustainable supply

- Recycling capabilities
- Most CO₂ competitive source for metals

Battery Materials business is set to become one of the key growth engines in BASF's portfolio, establishing a leading and profitable position

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Our commitments to reaching the Paris Climate Agreement

2030

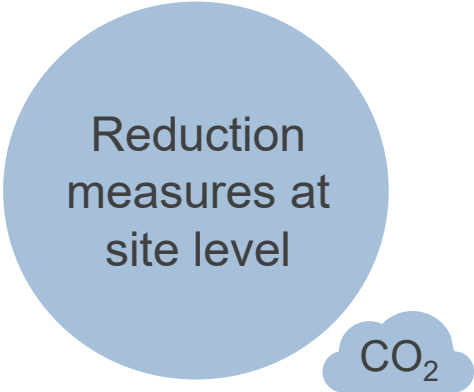
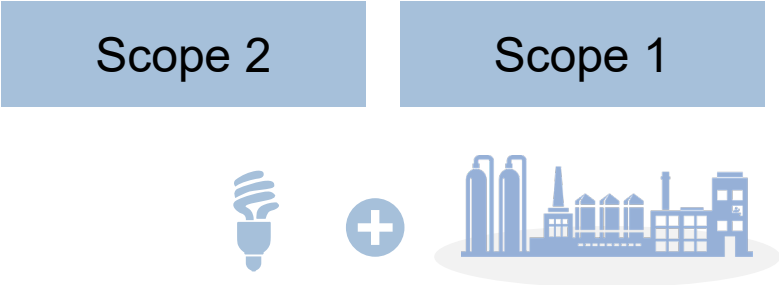
25%
CO₂ emissions
reduction
(compared with 2018)¹

2050

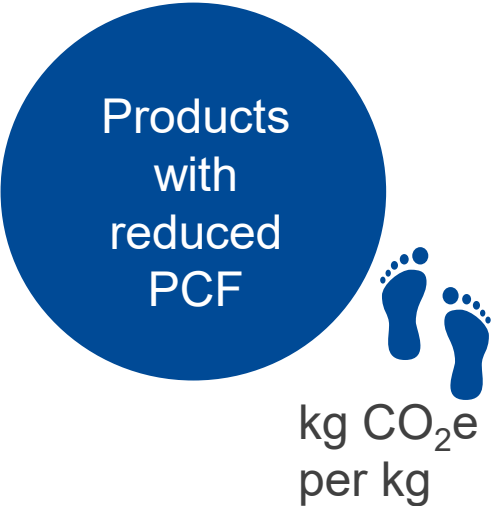
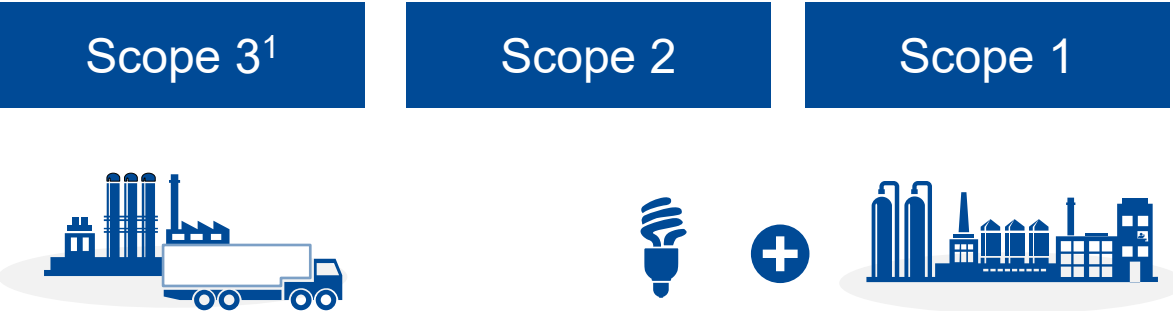
net zero
CO₂ emissions¹

Our two perspectives on emission reductions

BASF Group targets



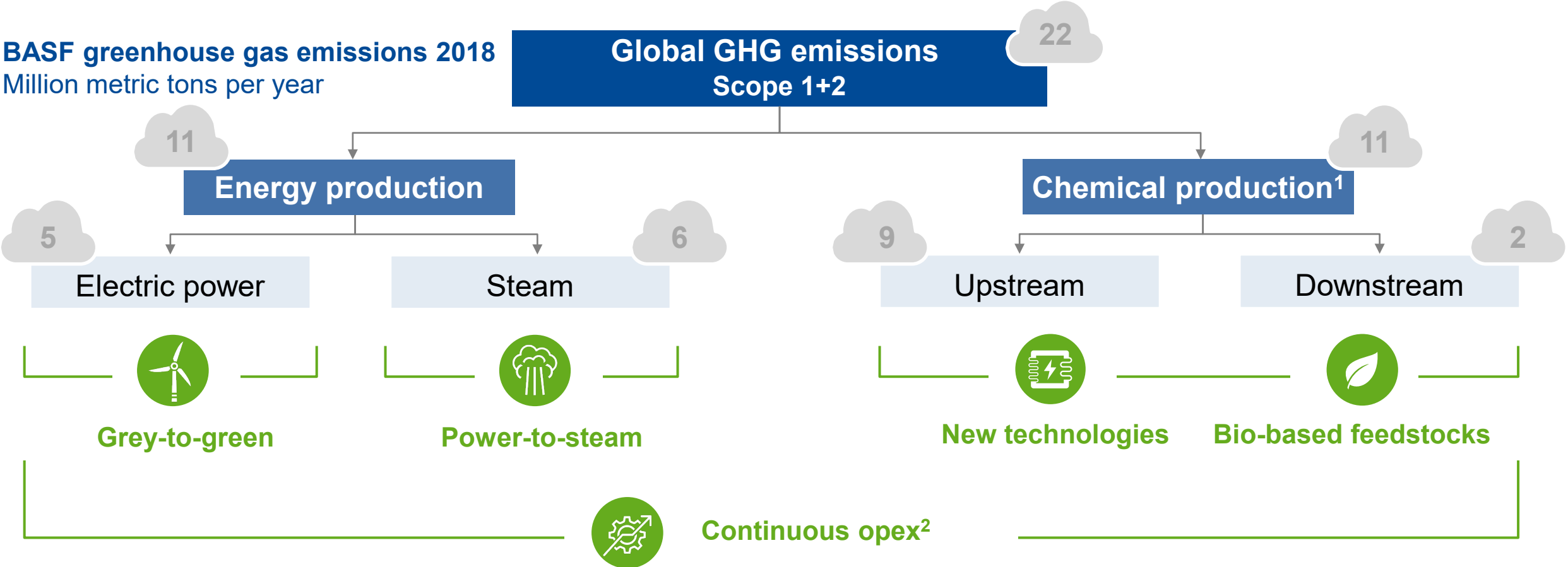
Product carbon footprint (PCF)



¹ Scope 3 emissions from raw materials production by suppliers

No downstream decarbonization without upstream decarbonization

BASF greenhouse gas emissions 2018
 Million metric tons per year

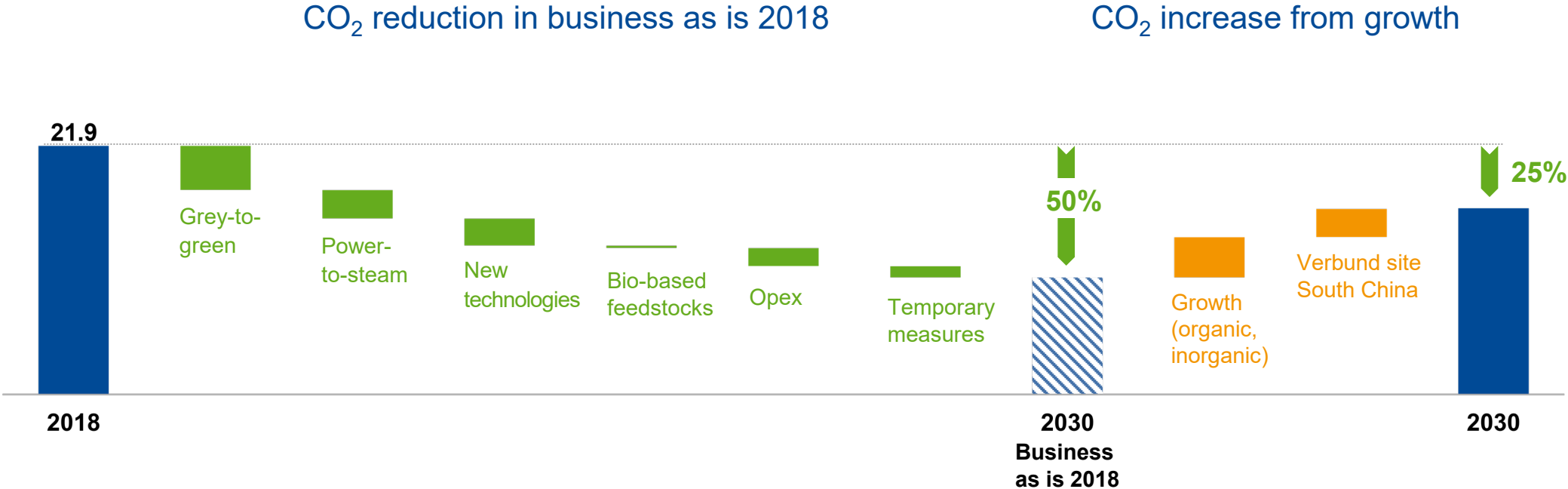


¹ Includes emissions from process energy ² Operational excellence measures

Our path to reduce BASF emissions from 2018 to 2030

BASF greenhouse gas emissions (Scope 1 and Scope 2) 2018–2030

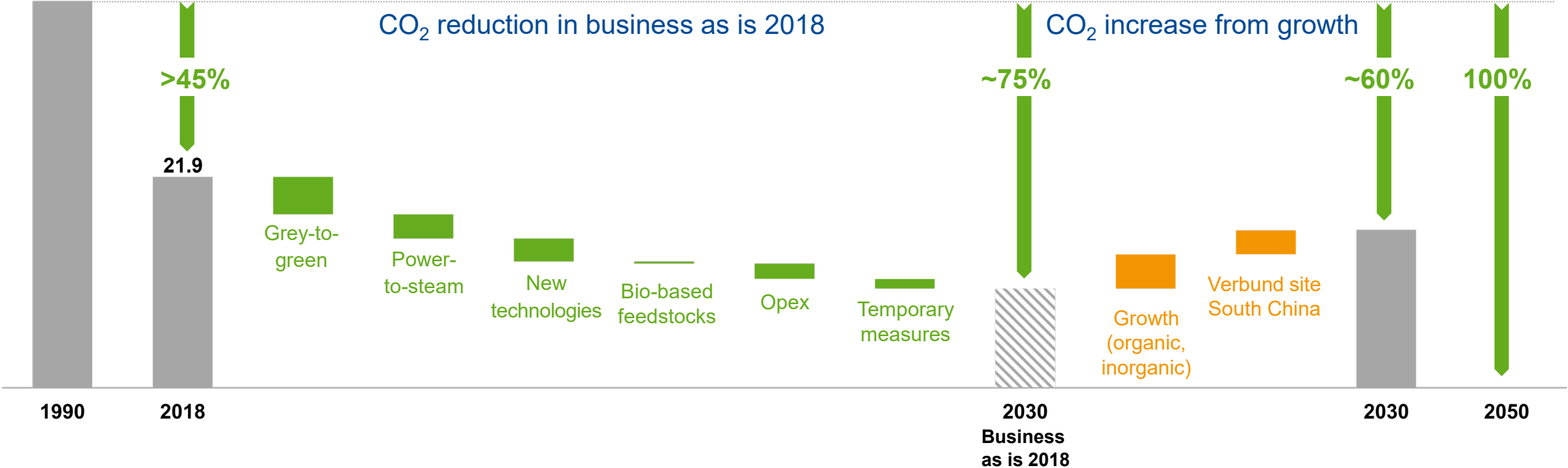
Million metric tons



Our path to reduce BASF emissions from 1990 to 2050

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

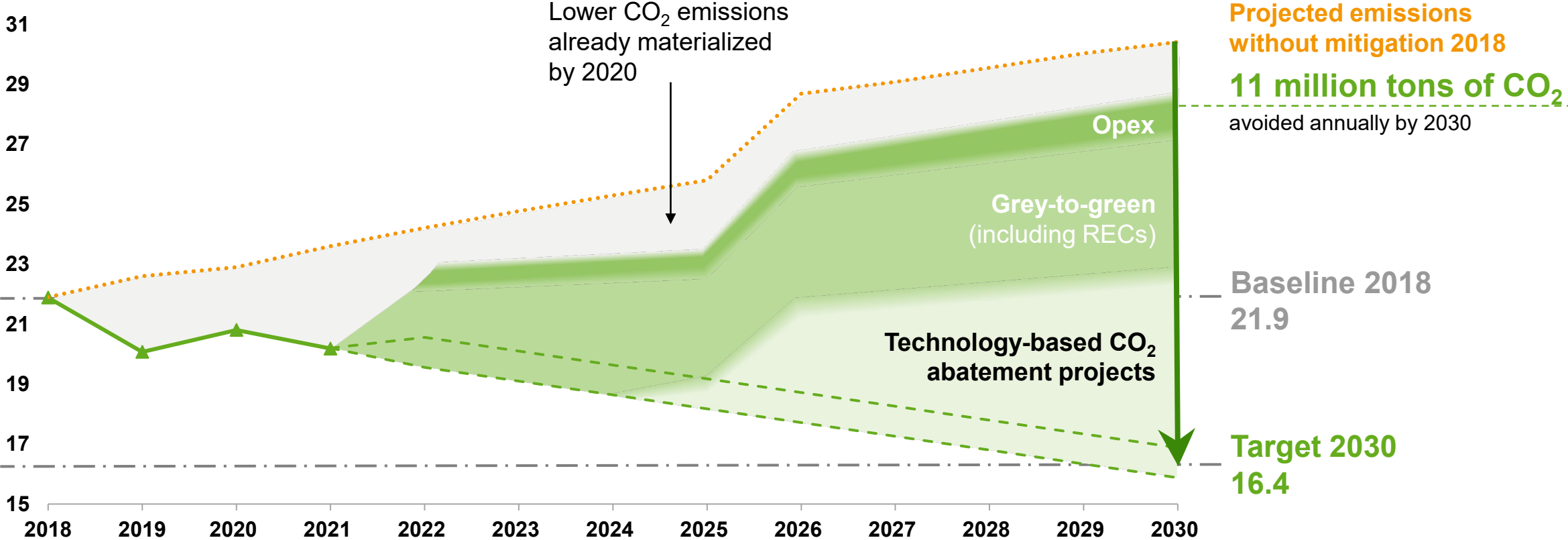
Million metric tons



Our roadmap is backed by robust calculations and solid planning

Projected BASF greenhouse gas emissions

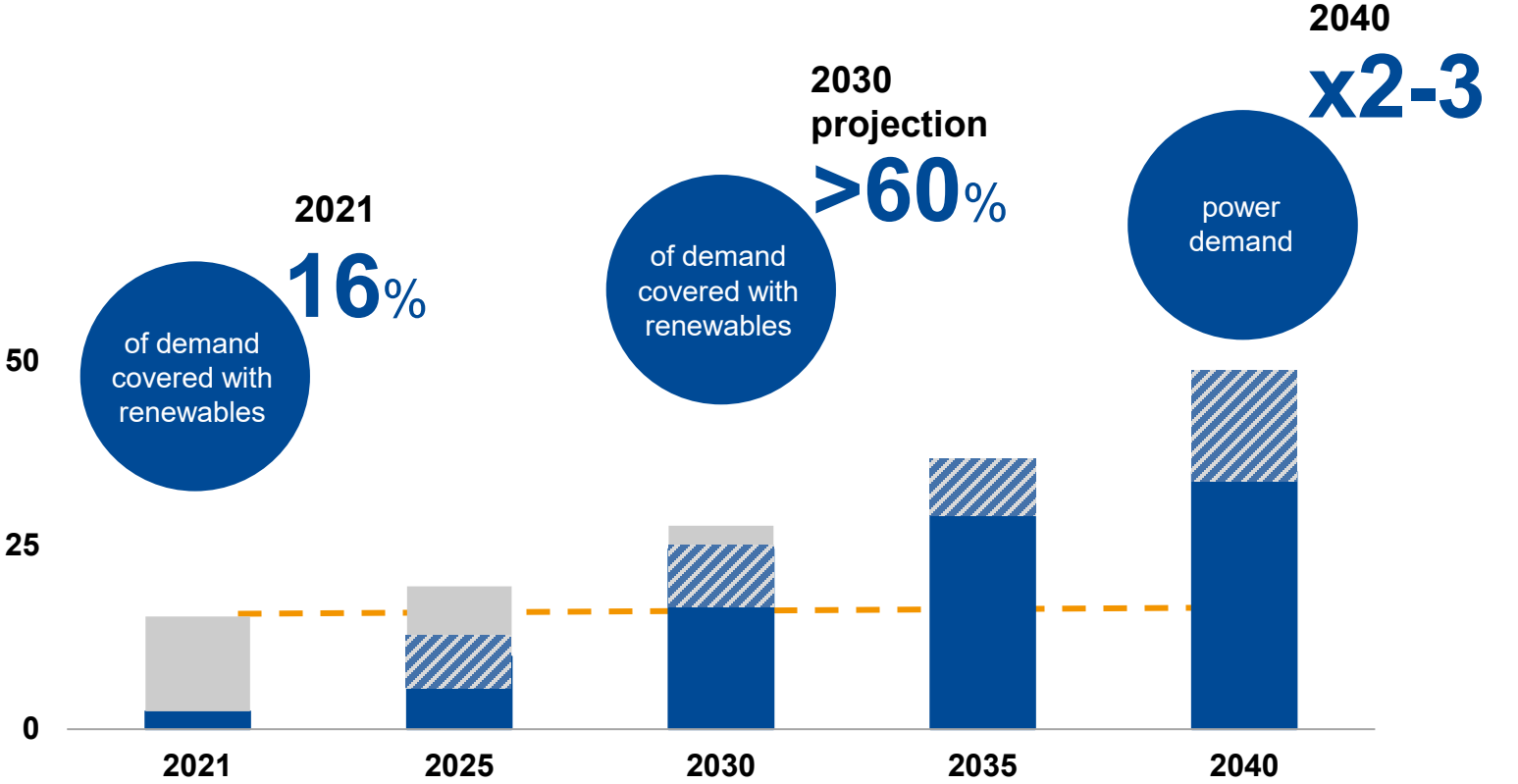
Million metric tons CO₂ equivalents



Switching our power to renewable energy will be the main driver of emission reduction until 2025

BASF global power demand and renewable supply projection

Terawatt hours

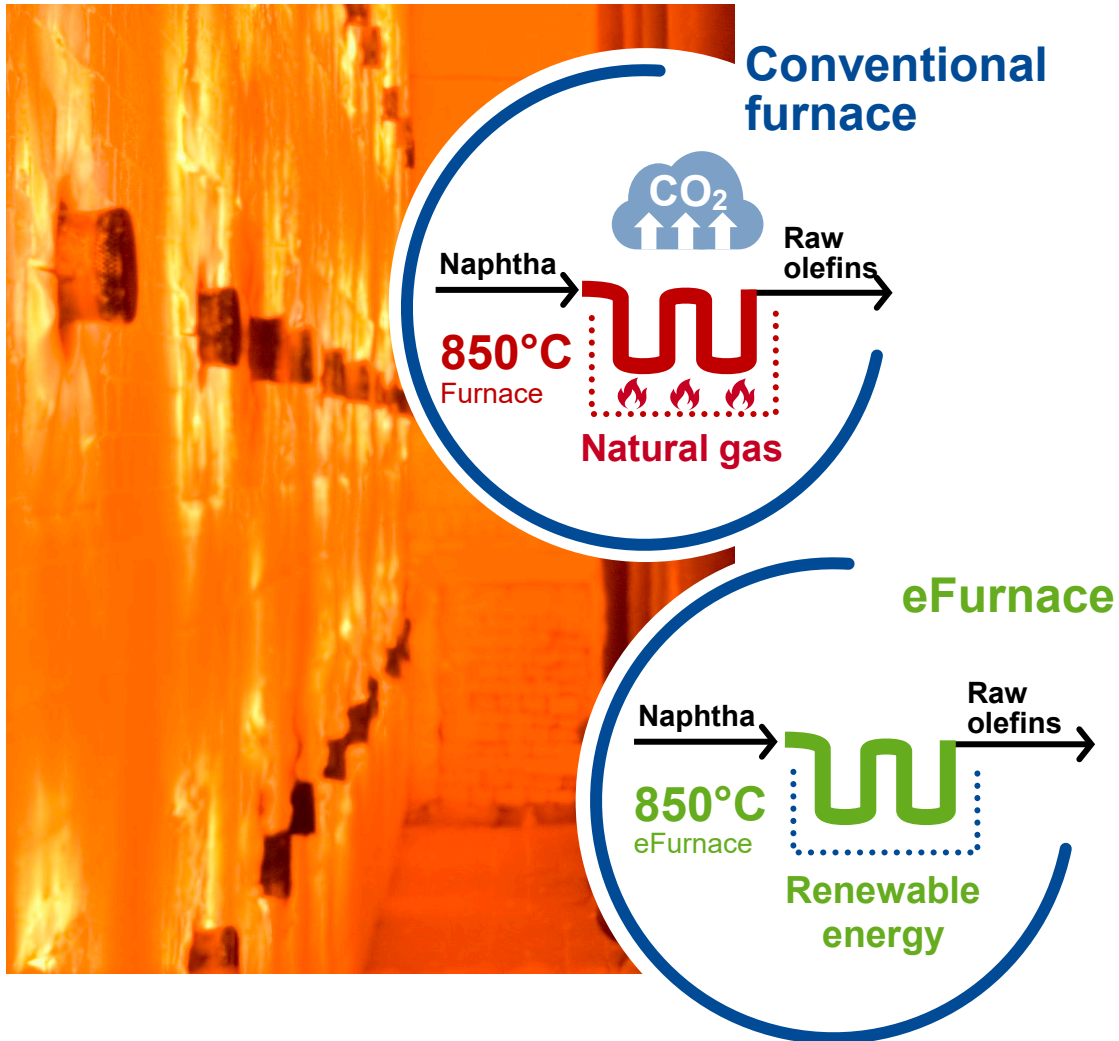


- BASF strives for **100% of power demand 2021 to be green by 2030**
- BASF **power consumption** expected to **increase strongly** due to electrification on our journey to net zero
- BASF pursues a **make-and-buy strategy** to secure access to renewable power
- Early investments in renewable power assets expected to offer **advantageous economics in the future**

Grey energy Green energy Additional need for green energy for electrification, depending on availability



Construction started on world's first demonstration plant for large-scale electrically heated steam cracker furnaces



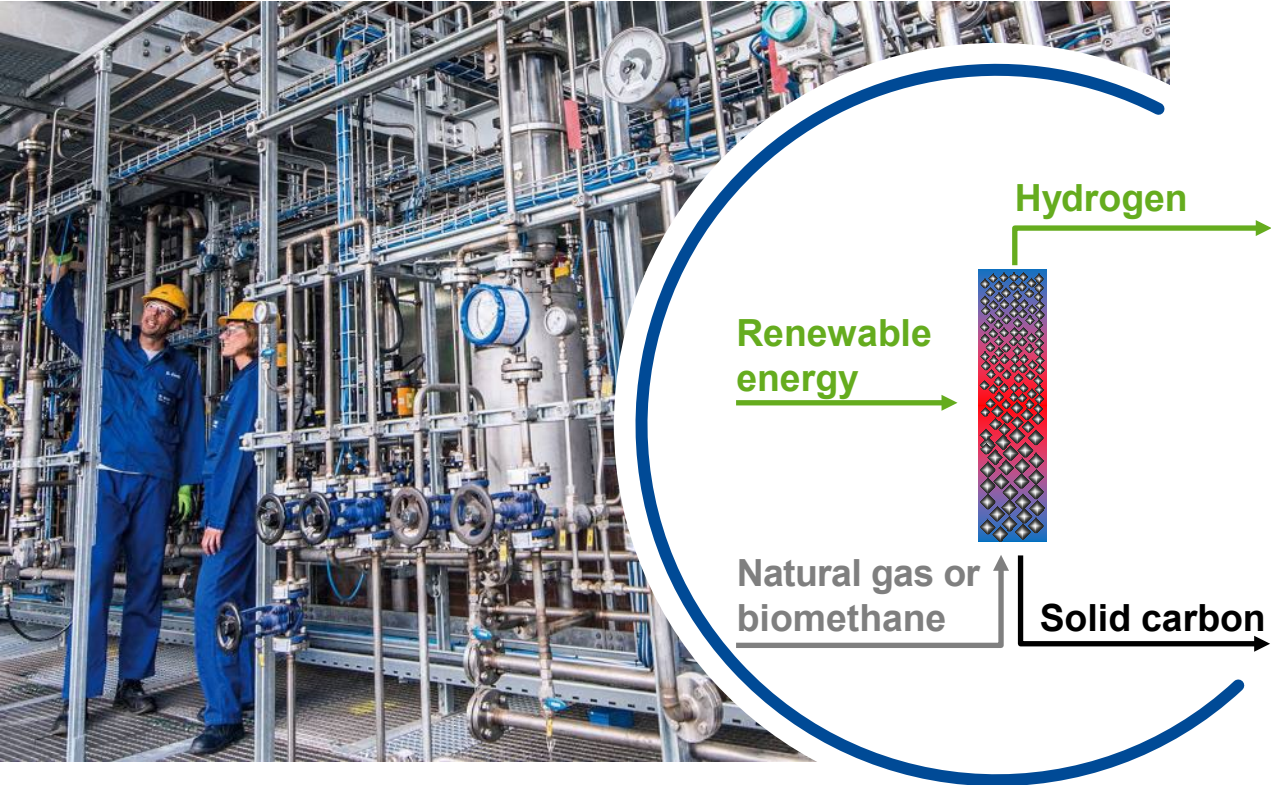
- Construction of demonstration plant started at Ludwigshafen Verbund site in **cooperation with SABIC and Linde**
- **Funding granted** by German Federal Ministry for Economic Affairs and Climate Action
- **Startup** of the demonstration plant **planned for 2023**

Supported by:



on the basis of a decision
by the German Bundestag

Methane pyrolysis combines low emissions with low energy demand

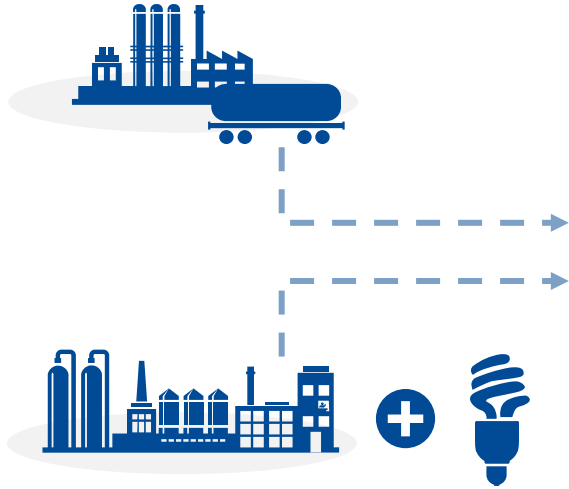


- **Methane pyrolysis** requires around **80% less electricity** than water electrolysis
- **Funding** for pilot reactor **was granted** by German Federal Ministry of Education and Research¹
- **Milestone achieved:** Pilot reactor at the Ludwigshafen site started successfully in Q2 2021
- Start-up of **first commercial plant projected before 2030**

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

Scope 3

Emissions caused by suppliers and generation of raw materials



Scope 1 + 2

Emissions caused by own operations¹

- TÜV-certified²
- Meets ISO standards³
- Calculates product carbon footprints cradle-to-gate



Product carbon footprints of sales products

Customer benefits

- Transparency on CO₂ emissions
- Identification of main reduction levers
- Certified software
- Transparent documentation

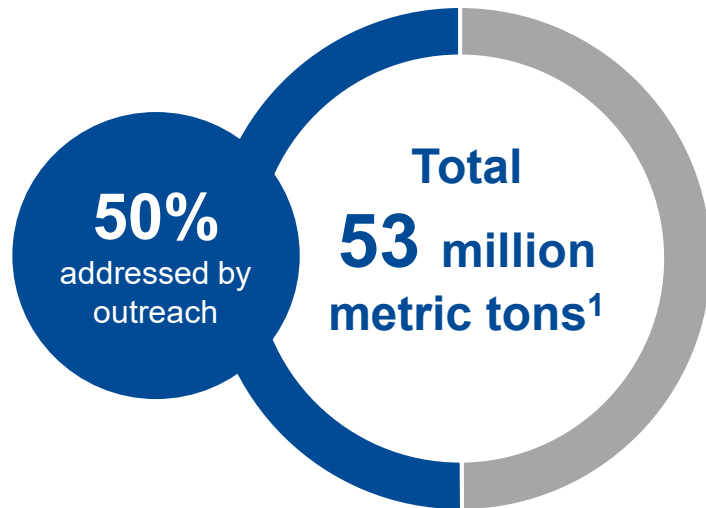
¹ Energy generation and chemical processes

² ISO 14067:2018

³ ISO 14040:2006, 14044:2006, 14067:2018, GHG Protocol Product Standard

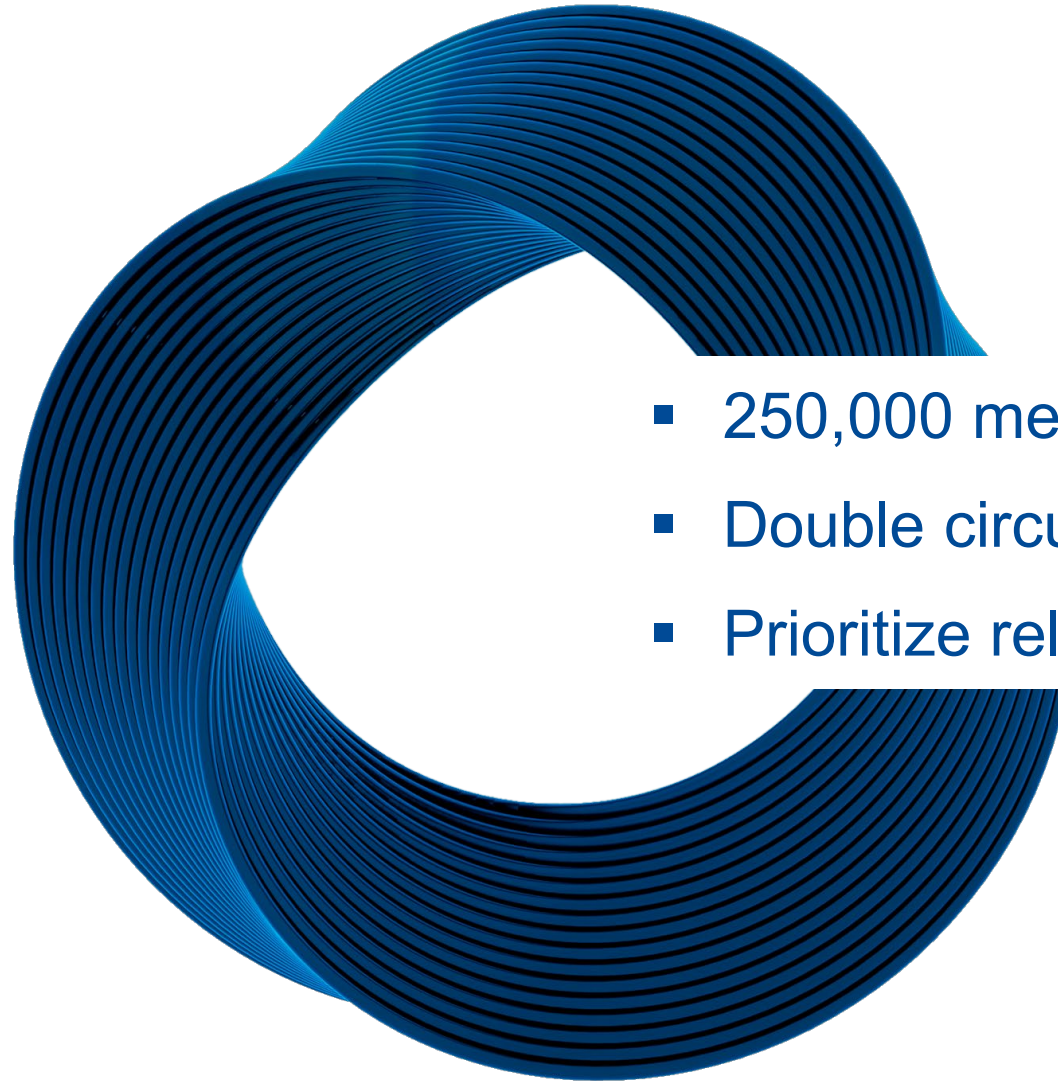
We create transparency on the CO₂ emissions of our raw materials as an important step in reducing BASF's Scope 3 emissions

BASF's CO₂e emissions from raw material purchase 2021



- BASF is supporting various initiatives to **develop and establish workable standards** for the chemical industry
- **Supplier CO₂ Management Program rolled-out** in 2021 to collect specific PCFs and align on reduction targets
- More than **700 key suppliers** have been approached by the end of 2021, accounting for **50% of Scope 3 emissions¹**
- Collaboration through **knowledge sharing on PCF calculation methodology** ongoing to ensure engagement and quality of data
- First suppliers have **committed to reducing** their emissions
- **BASF will make PCFs a buying criterion** to ensure PCF reduction of its sales products

BASF's Circular Economy Program: Targets



- 250,000 metric tons of circular feedstock by 2025
- Double circular sales to €17 billion by 2030
- Prioritize related capex, M&A, R&D

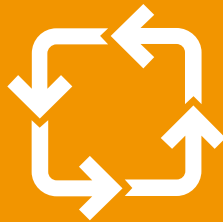
From a linear to a more circular economy

– BASF contribution: ChemCycling™

Close the loop

ChemCycling™

- + can handle mixed plastic waste
- + produces virgin grade raw materials
- + replaces virgin fossil resources
- + CO₂ emissions prevented¹



- Investments into **Quantafuel** (pyrolysis of mixed plastic waste) and **Pyrum** (pyrolysis of end-of-life tires) and uptake supply agreements with both companies
- Agreement with **New Energy** for uptake of pyrolysis oil derived from end-of-life tires and for a joint feasibility study for adaption of technology to other plastic waste streams

Plastic waste and end-of-life tires are converted into liquid feedstock and fed into BASF's value chains

Linear economy



Landfill



Incineration

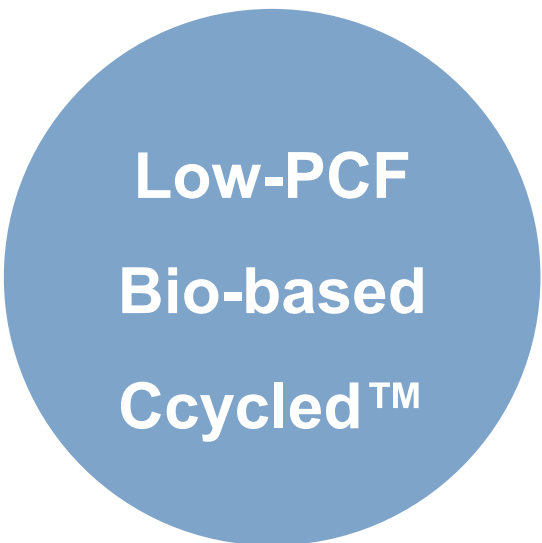


Littering



Mechanical recycling

Transformation requires a broad technology portfolio



CO₂ avoidance potential per megawatt hour of electrical energy used (metric tons of CO₂/MWh)

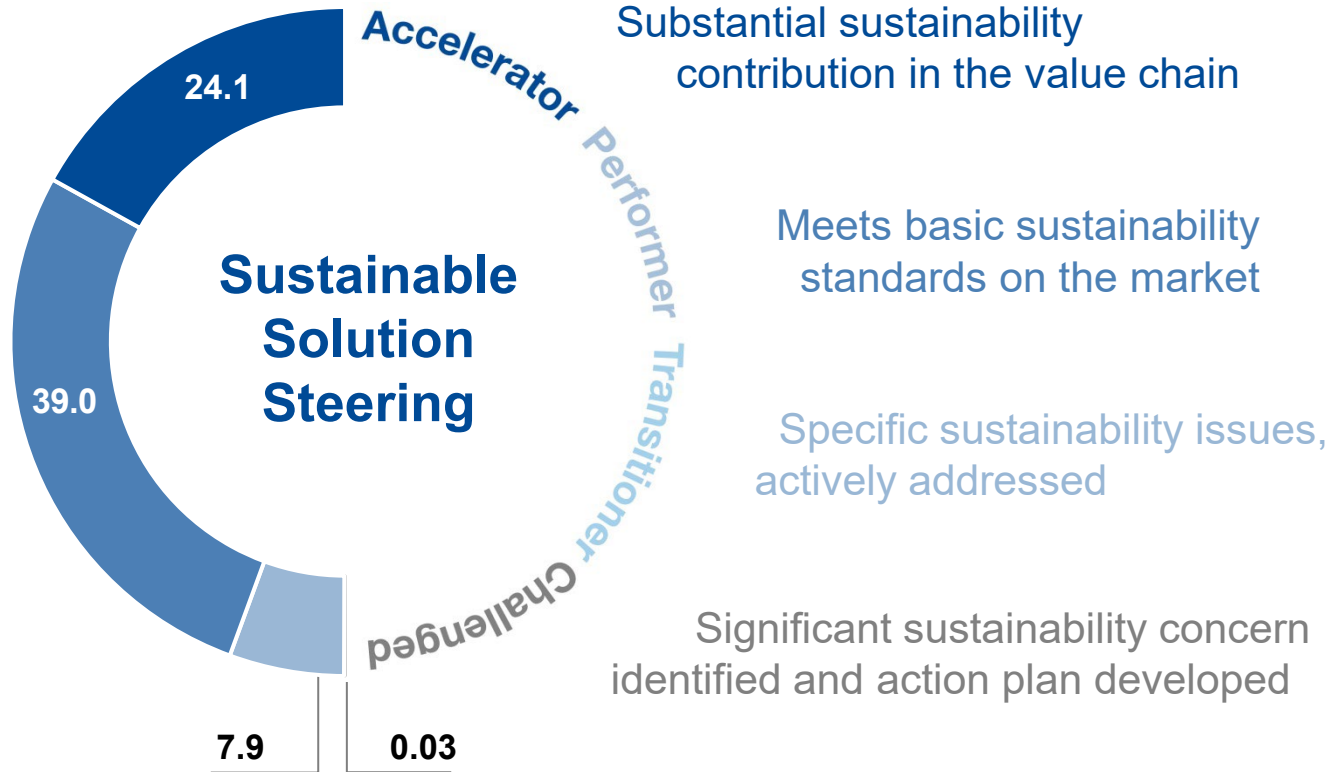
- Methane pyrolysis ~0.9
- Heat pumps ~0.6-1.0
- eDrive NH₃ ~0.7
- eFurnace ~0.2
- Water electrolysis ~0.2

Target: We aim at doubling our circular sales to reach €17 billion by 2030

- Focus on closing the loops
- Renewable-based feedstocks
 - Recycled-based feedstocks
 - Enable recyclability and/or biodegradability

€24.1 billion of BASF Group sales from sustainable solutions – leveraging our innovation power

Absolute sales 2021
billion €



- Portfolio segmentation: >56,000 specific product applications analyzed by end of 2021 (€71 billion in sales, 98.7% of relevant portfolio¹)
- Accelerator margins on average ~6 percentage points above the rest of assessed portfolio
- We will stop selling Challenged products within maximum five years after classification
- Target of achieving €22 billion of sales with Accelerator products by 2025 achieved in 2021; portfolio steering target to be adjusted in the course of 2022

Innovations for a sustainable future – Accelerator examples



BASF in sustainability ratings and rankings

MSCI ESG Research

In 2022, BASF was rated A. The analysts highlighted that BASF is present in clean tech markets and has a robust carbon mitigation strategy.



CDP Disclosure Leadership

In 2021, BASF achieved a score of A- in all categories we are participating in: “Climate,” “Water” and “Forest,” thus attaining leadership status again.



Sustainalytics

BASF ranks among the top 10% of performers in diversified chemicals. Sustainalytics recognized BASF for its strong risk management in the areas of carbon, emission, effluents and waste as well as occupational health and safety



FTSE4Good Global Index

BASF was included again in the FTSE4Good Global Index 2022, receiving the highest ESG rating score in the chemical industry.



FTSE4Good

ISS ESG

In 2022, BASF held its Prime Status (B-), being among the top 7%.



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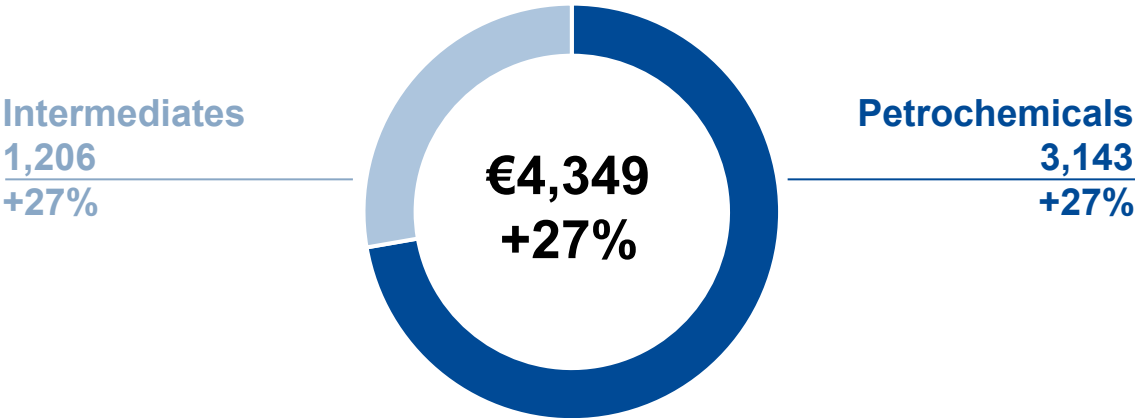
Pushing the transition to a
sustainable economy

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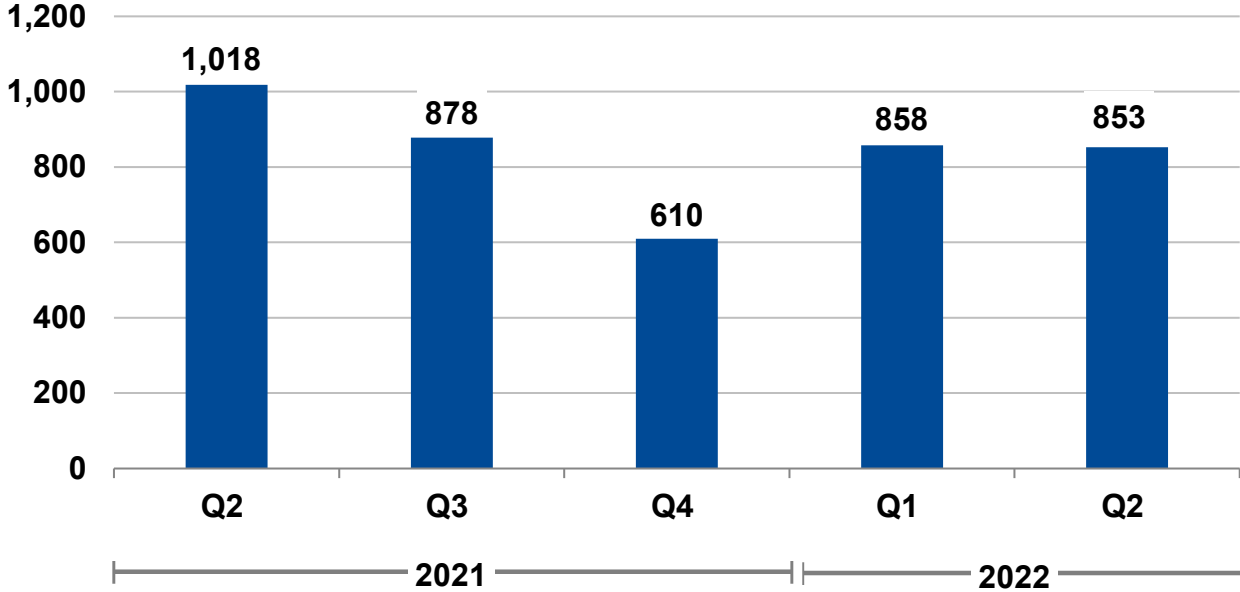
Reporting

Chemicals

Sales Q2 2022 vs. Q2 2021
million €



EBIT before special items¹
million €

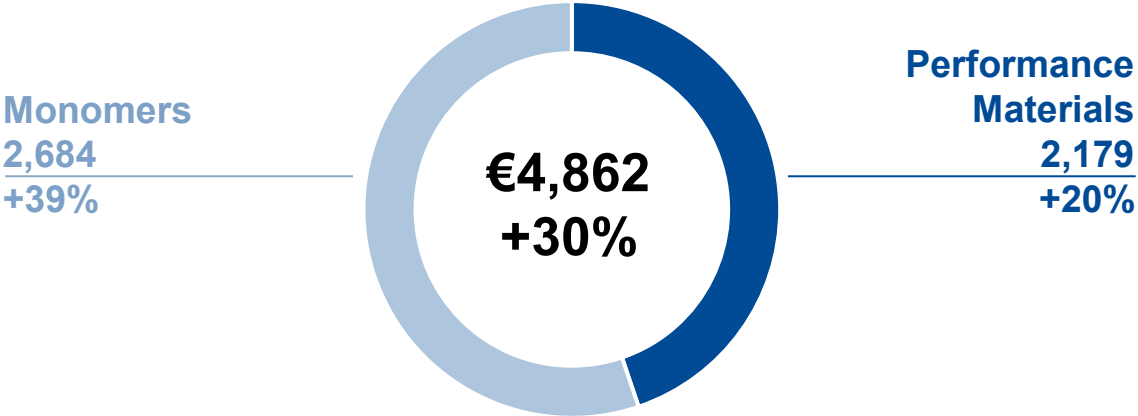


Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↓ -3.9%	↑ 24.9%	↓ -0.1%	↑ 6.4%

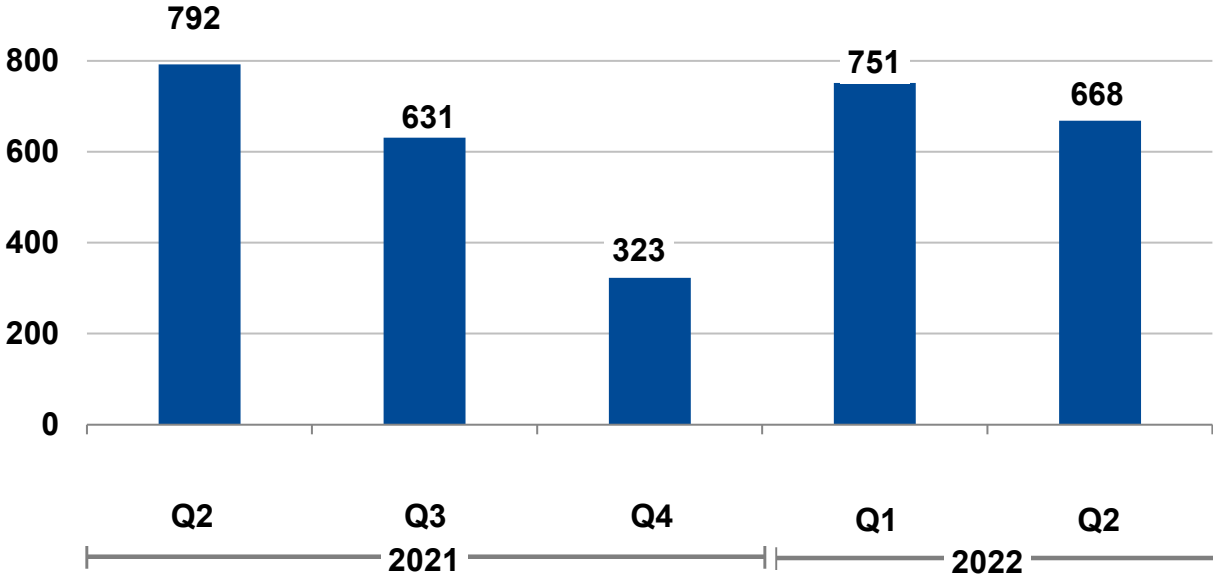
¹ BASF's ethylene value chain was reorganized as of January 1, 2022. In this connection, the polyolefins and styrenics businesses of the joint venture BASF-YPC Company Ltd., Nanjing, China, which were previously reported under Other, were allocated to the Petrochemicals division. The prior-year figures have been adjusted.

Materials

Sales Q2 2022 vs. Q2 2021
million €



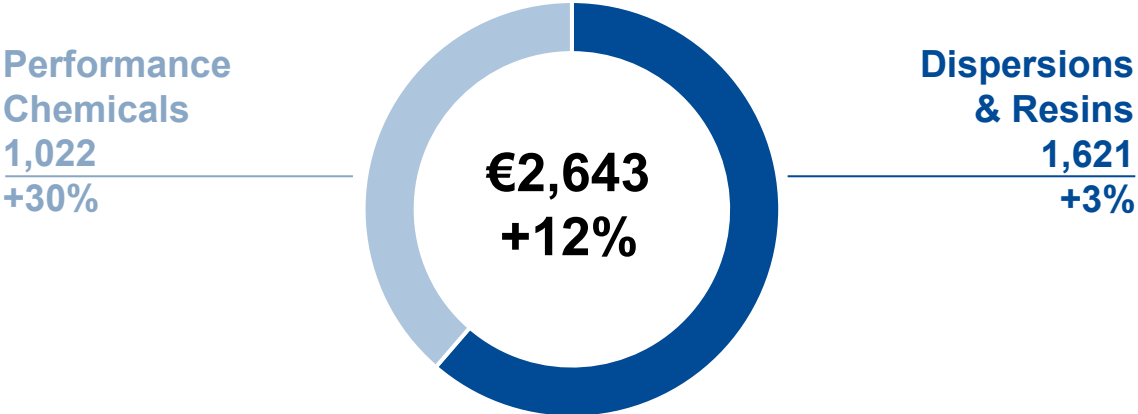
EBIT before special items
million €



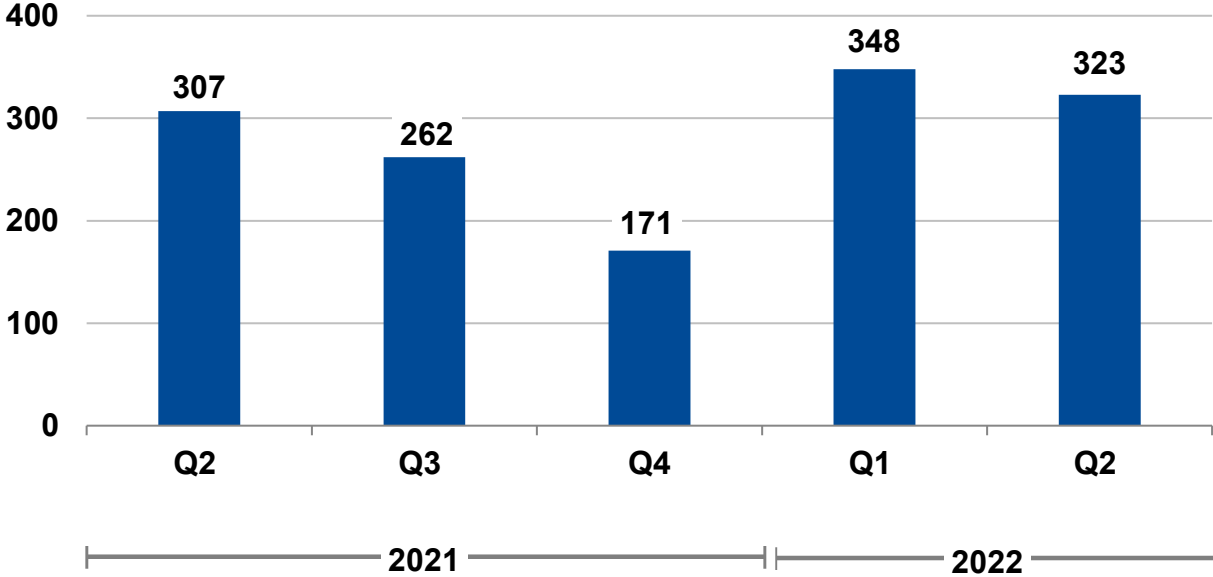
Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↓ -1.8%	↑ 24.9%	↓ -0.1%	↑ 6.9%

Industrial Solutions

Sales Q2 2022 vs. Q2 2021
million €



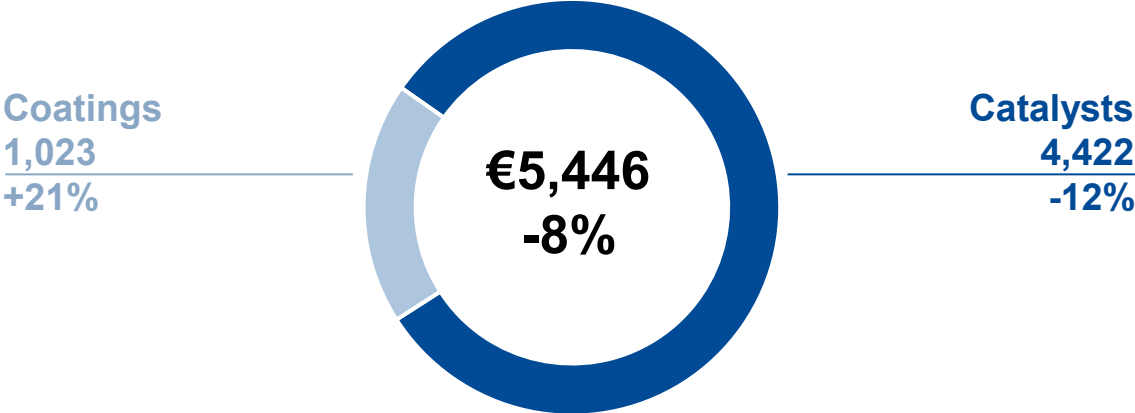
EBIT before special items
million €



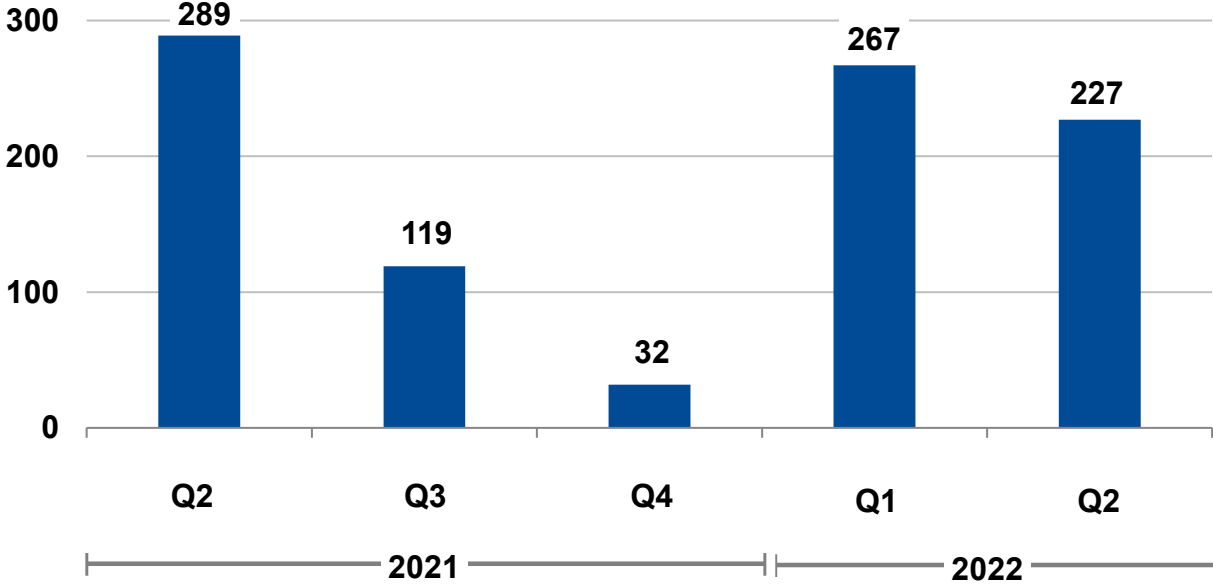
Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↓ -2.0%	↑ 17.9%	↓ -10.8%	↑ 7.0%

Surface Technologies

Sales Q2 2022 vs. Q2 2021
million €



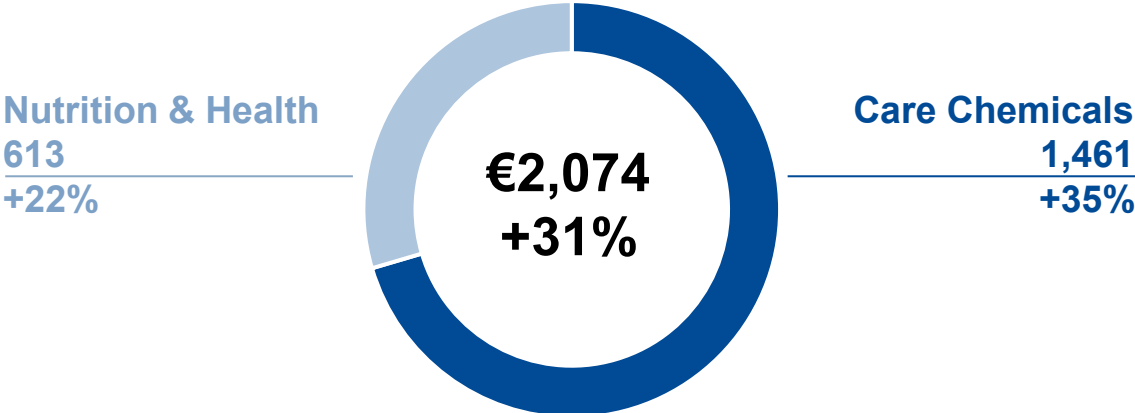
EBIT before special items
million €



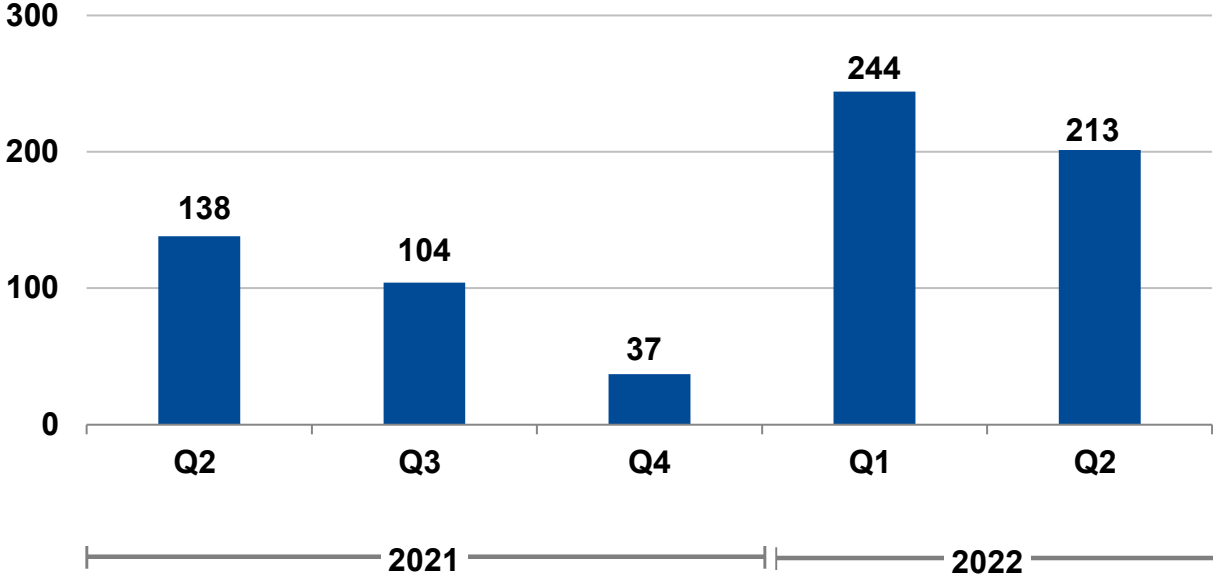
Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↓ -14.2%	↓ -5.7%	↑ 5.3%	↑ 7.1%

Nutrition & Care

Sales Q2 2022 vs. Q2 2021
million €



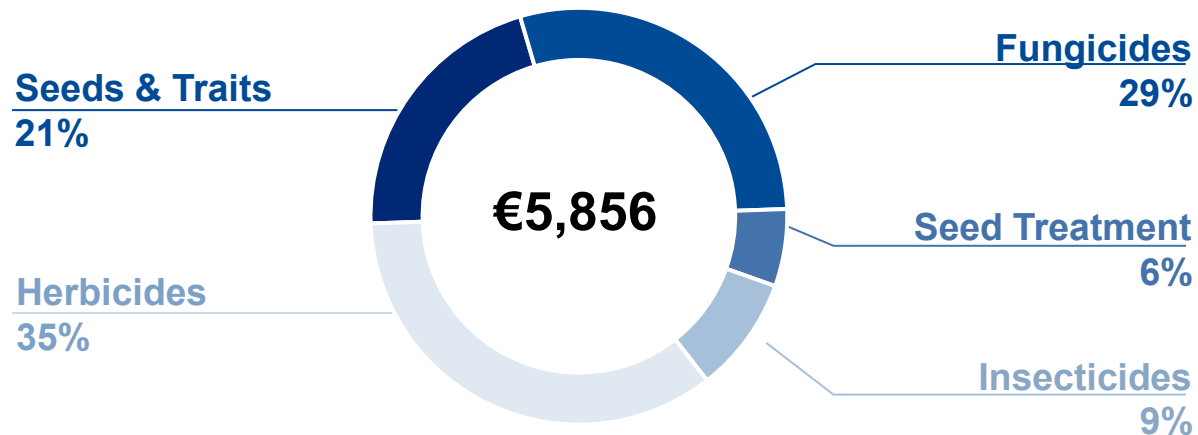
EBIT before special items
million €



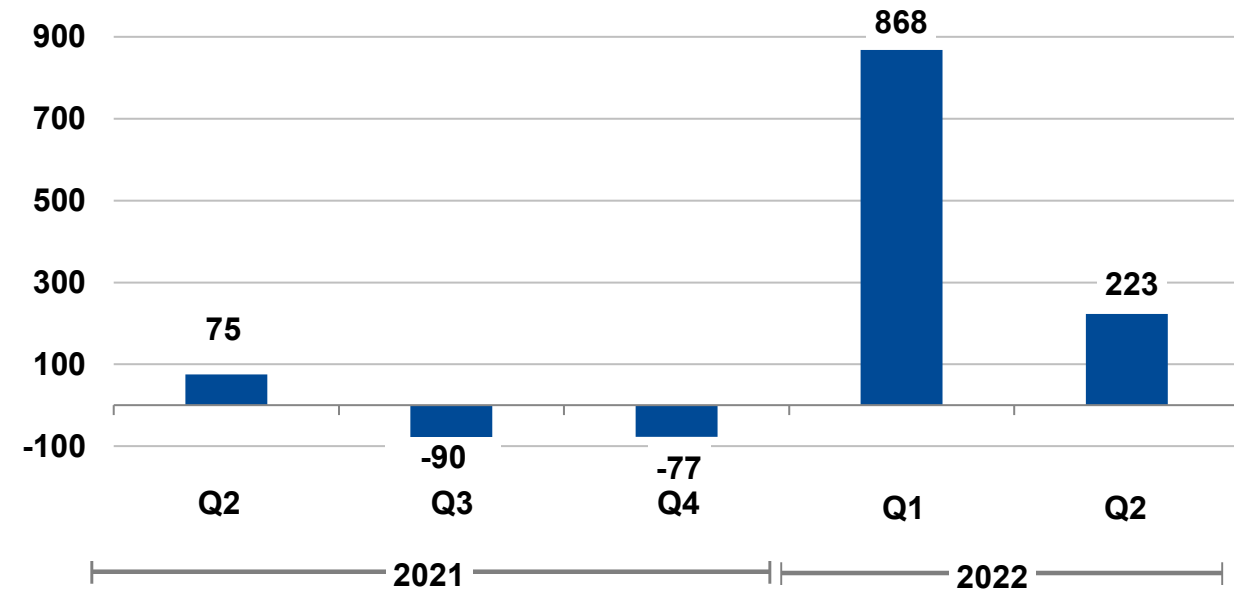
Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↑ 0.3%	↑ 27.0%	↓ -2.1%	↑ 5.8%

Agricultural Solutions

H1 2022 sales by indication and sector Share of sales



EBIT before special items million €



Sales development	Volumes	Prices	Portfolio	Currencies
Q2 2022 vs. Q2 2021	↑ 5.2%	↑ 11.4%	↓ -0.6%	↑ 9.3%
H1 2022 vs. H1 2021	↑ 7.9%	↑ 8.6%	↓ -0.4%	↑ 5.7%

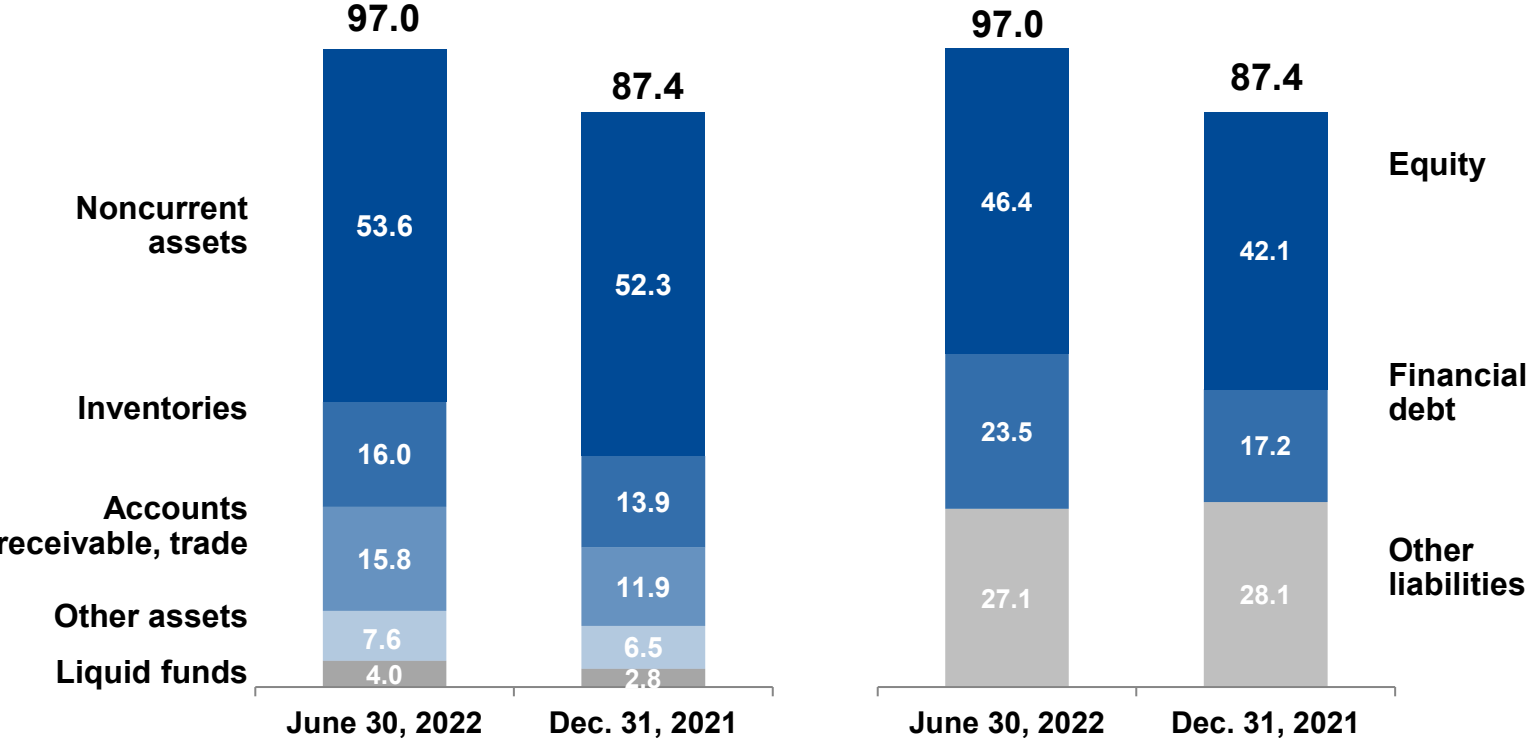
Review of “Other”

Financial figures		Q2 2022	Q2 2021
		Million €	Million €
Sales		1,142	793
EBIT before special items¹		-168	-263
of which	Costs of corporate research	-74	-78
	Costs of corporate headquarters	-68	-61
	Foreign currency results, hedging and other measurement effects	55	22
	Other businesses	-32	47
Special items		208	-49
EBIT¹		40	-315

¹ BASF's ethylene value chain was reorganized as of January 1, 2022. In this connection, the polyolefins and styrenics businesses of the joint venture BASF-YPC Company Ltd., Nanjing, China, which were previously reported under Other, were allocated to the Petrochemicals division. The prior-year figures have been adjusted.

Strong balance sheet

Balance sheet June 30, 2022, vs. Dec. 31, 2021
Billion €



- **Total assets** increased by €9.6 billion to €97.0 billion
- **Noncurrent assets** amounted to €53.6 billion, an increase of €1.3 billion
- **Current assets** increased by €8.3 billion to €43.4 billion, mainly due to higher trade accounts receivable. In addition, higher inventories, other receivables and miscellaneous assets and cash and cash equivalents contributed to the increase
- **Net debt** increased by €5.2 billion to €19.5 billion
- **Equity ratio:** 47.8% (December 31, 2021: 48.2%)



We create chemistry