



We create chemistry

BASF 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 158 to 166 of the BASF Report 2020. 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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What is driving BASF's future growth?

Global trends provide opportunities for growth in the chemical industry

Population growth:

Driven by the emerging markets

+25%
2020 to 2050

Digitalization:

Rapid growth in volume of data

456
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 ▪ 241 additional production sites worldwide ▪ 6.2 million metric tons of CO₂ avoided globally in 2020 	<ul style="list-style-type: none"> ▪ €2.1 billion R&D expenditures in 2020 ▪ ~10,000 employees in R&D ▪ Sales of ~€10 billion in 2020 with products launched during last 5 years 	<ul style="list-style-type: none"> ▪ 2 Verbund sites already ▪ >70 production sites ▪ €15.4 billion¹ sales in 2020 ▪ Strong volume and earnings development of BASF in Greater China 	<ul style="list-style-type: none"> ▪ Target: 25% CO₂ emission reduction by 2030 (compared with 2018)² ▪ We aim to achieve net zero CO₂ emissions² by 2050 ▪ Achieve €22 billion in Accelerator sales by 2025 (2020: €16.7 billion) 	<ul style="list-style-type: none"> ▪ Aim to increase the dividend per share every year ▪ Dividend of €3.30 per share for 2020

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

² The goal includes Scope 1 and Scope 2 emissions. Other greenhouse gases are converted into CO₂ equivalents according to the Greenhouse Gas Protocol

Our ambitious financial targets

Profitable growth

	Target	2020 status	SDG
Achieve a return on capital employed (ROCE) ¹ considerably above the cost of capital percentage every year	> 9%	1.7%	 
Grow sales volumes faster than global chemical production every year	>-0.4%	-0.5%	 
Increase EBITDA before special items by 3% to 5% per year	+3–5%	-10.7%	 
Increase the dividend per share every year based on a strong free cash flow	> €3.30	€3.30	 

¹ Return on capital employed (ROCE) is a measure of the profitability of our operations. We calculate this indicator as the EBIT generated by the segments as a percentage of the average cost of capital basis

Our ambitious non-financial targets¹

Effective climate protection

We want to **reduce our absolute CO₂ emissions²** by 25 percent by 2030 (development of carbon emissions compared with baseline 2018)³

Target **2020 status** **SDG**

≤ 16.4 million metric tons 20.8 million metric tons



Sustainable product portfolio

Achieve **€22 billion in Accelerator sales⁴** by 2025

Target **2020 status** **SDG**

€22.0 billion €16.7 billion



We aim to achieve **net zero CO₂ emissions²** by 2050



Employee engagement and diversity

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

Target **2020 status** **SDG**

30% 24.3%



Resource efficiency and safe production

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

Target **2020 status** **SDG**

≤ 0.1 0.3



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

≤ 0.1 0.3



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

100% 46.2%



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

> 80% 82%



Responsible procurement

Cover **90%** of our relevant spend⁵ with **sustainability evaluations** by 2025
Have **80%** of our suppliers **improve their sustainability performance** upon re-evaluation

90% 80%



80% 68%

¹ Targets as published in the BASF Report 2020, CO₂ targets updated on March 26, 2021
² The goal includes Scope 1 and Scope 2 emissions. Other greenhouse gases are converted into CO₂ equivalents according to the Greenhouse Gas Protocol.
³ 2030 target compared with 1990: 60% CO₂ reduction
⁴ Products with substantial contribution to sustainability
⁵ Relevant spend; based on risk matrices, purchasers' assessments and other sources

BASF Group Q3 2021 and Q1–Q3 2021: Financial figures

Financial figures	Q3 2021	Change +/-	Q1–Q3 2021	Change +/-
	million €	million €	million €	million €
Sales	19,669	5,858	58,822	15,578
EBITDA before special items	2,771	1,229	9,169	3,819
EBITDA	2,729	1,685	9,104	4,562
EBIT before special items	1,865	1,284	6,541	4,094
EBIT	1,822	4,460	6,449	7,572
Net income from shareholdings	86	133	110	1,113
Net income	1,253	3,375	4,625	6,740
Reported EPS (€)	1.36	3.67	5.03	7.33
Adjusted EPS (€)	1.56	0.96	5.59	3.48
Cash flows from operating activities	1,896	-204	3,908	596

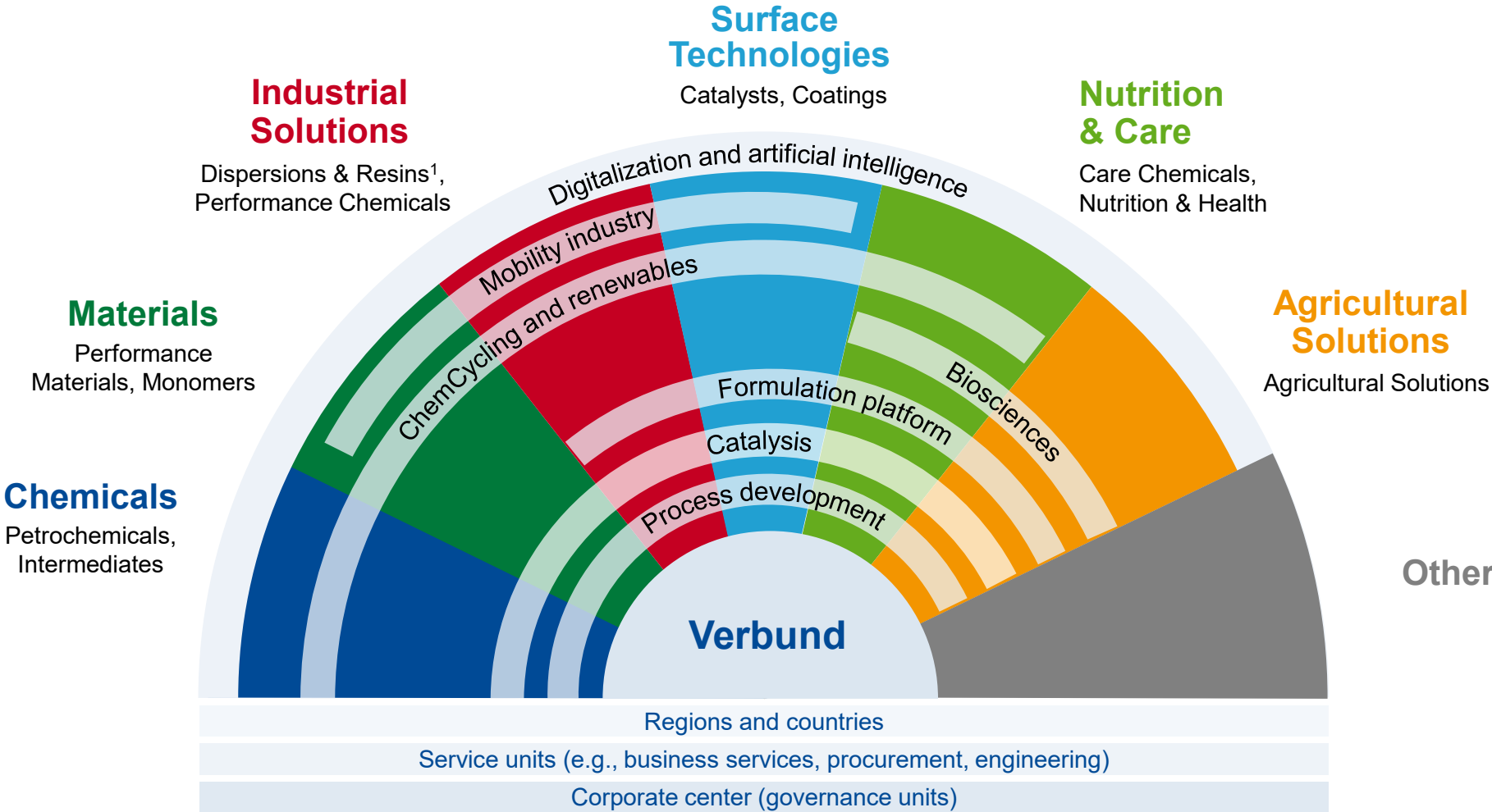
Outlook 2021 for BASF Group

Outlook 2021	revised forecast	previous forecast
Sales	€76 billion – €78 billion	€74 billion – €77 billion
EBIT before special items	€7.5 billion – €8.0 billion	€7.0 billion – €7.5 billion
ROCE	13.2% – 14.1%	12.1% – 12.9%
Accelerator sales	€21.5 billion – €22.5 billion	€21 billion – €22 billion
CO ₂ emissions	20.5 – 21.5 million metric tons	20.5 – 21.5 million metric tons

Underlying assumptions for 2021 (previous assumptions in parentheses)













- Growth in gross domestic product: 5.3% (5.5%)
- Growth in industrial production: 6.0% (6.5%)
- Growth in chemical production: 6.0% (6.5%)
- Average euro/dollar exchange rate: \$1.20 per euro (unchanged)
- Average annual oil price (Brent): \$70 per barrel (\$65 per barrel)

BASF's diversified portfolio with market-oriented segment structure provides resilience and supports customer orientation



¹ Since July 1, 2021, the division "Dispersions & Pigments" is named "Dispersions & Resins"

Each segment has a clear and compelling path forward

	Chemicals	Materials	Industrial Solutions	Surface Technologies	Nutrition & Care	Agricultural Solutions
% of sales 2020 ¹	14%	18%	13%	28%	10%	13%
EBITDA bsi 2020 ¹	€1.3 billion	€1.7 billion	€1.2 billion	€1.0 billion	€1.2 billion	€1.7 billion
Core theme	Verbund	Advanced materials	Additives platform	Surface modification platform	Consumer ingredients	Integrated offering of crop protection, seeds & traits, digital solutions
Innovation focus	Improved or new processes	Applications, biomaterials	Formulations	Battery materials, surface effects	Biotechnology, formulations	Crop protection, seeds & traits, digital farming
Capex relevance						
M&A relevance						
Sustainability	ChemCycling™	Bio-based materials	More from less	Low-emission mobility	Bio-based and natural, traceability	Better with less

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

- 6.2 million metric tons of CO₂ emissions avoided globally in 2020
- Integration enables drop-in solutions for bio-based and recycled feedstock for low-carbon products

Production

Value Chains

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



Technologies

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

Digitalization

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

Markets

- Create customer relevance through size and broad portfolio

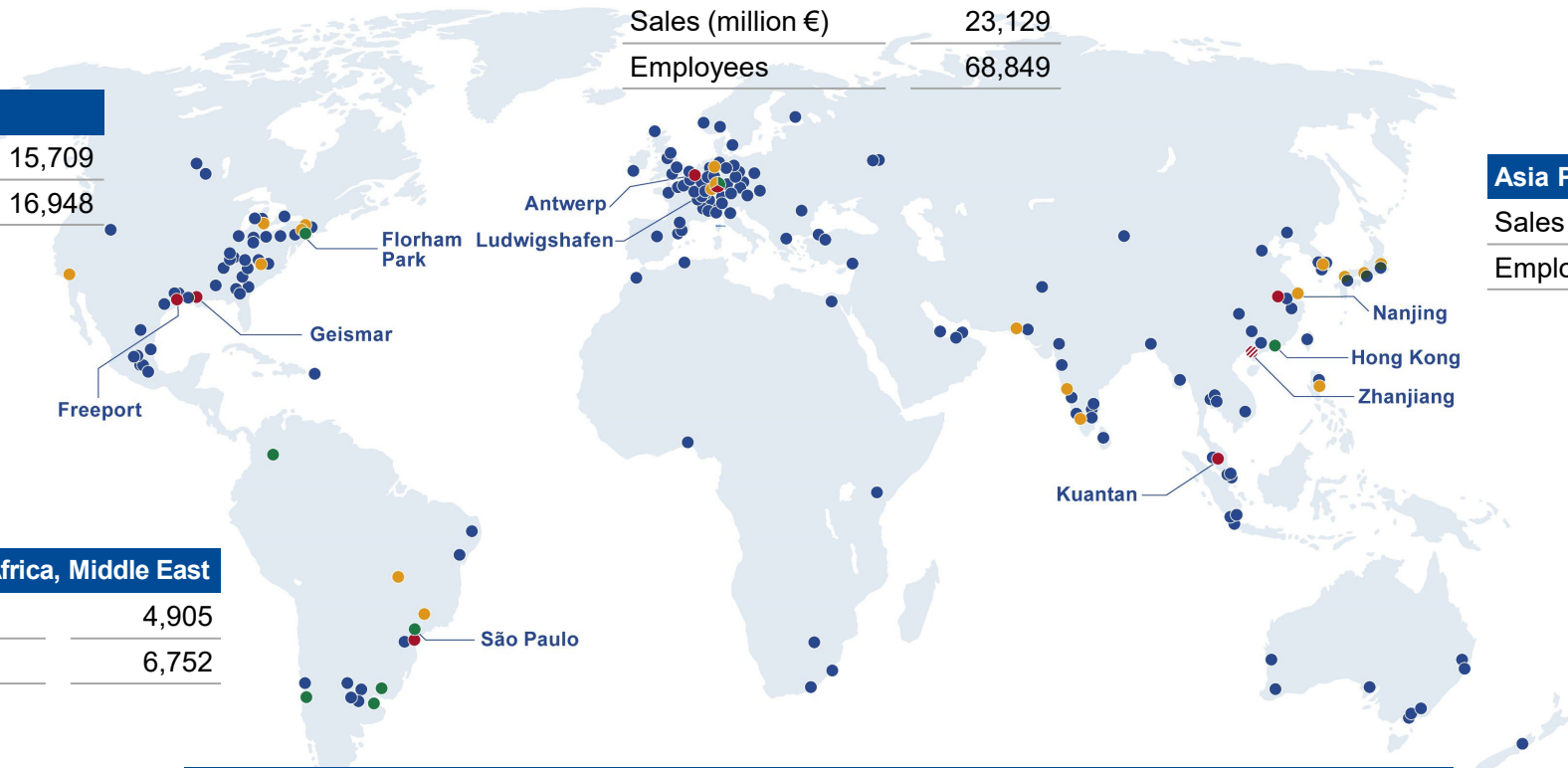
We operate close to our customers in all regions worldwide

North America	
Sales (million €)	15,709
Employees	16,948

Europe	
Sales (million €)	23,129
Employees	68,849

Asia Pacific	
Sales (million €)	15,406
Employees	17,753

South America, Africa, Middle East	
Sales (million €)	4,905
Employees	6,752



BASF sales by industry 2020

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

- €22.9 billion capex budget 2021–2025
- Proceeds from divestitures to support BASF's major growth projects
- Around €2.0 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 upgrading

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

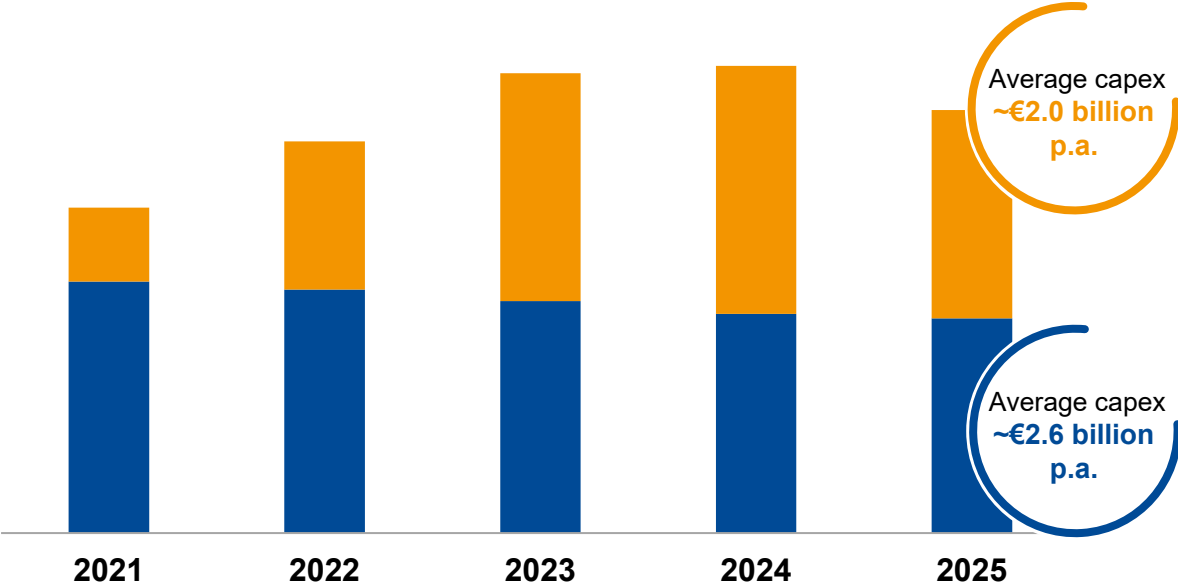
Share buybacks

- On January 4, 2022, BASF resolved on share buyback program with a volume of up to €3 billion
- Program shall start in January 2022 and be concluded by the end of December 2023, at the latest¹

¹ Subject to a renewed authorization to repurchase own shares by the Annual Shareholders' Meeting of BASF SE on April 29, 2022.

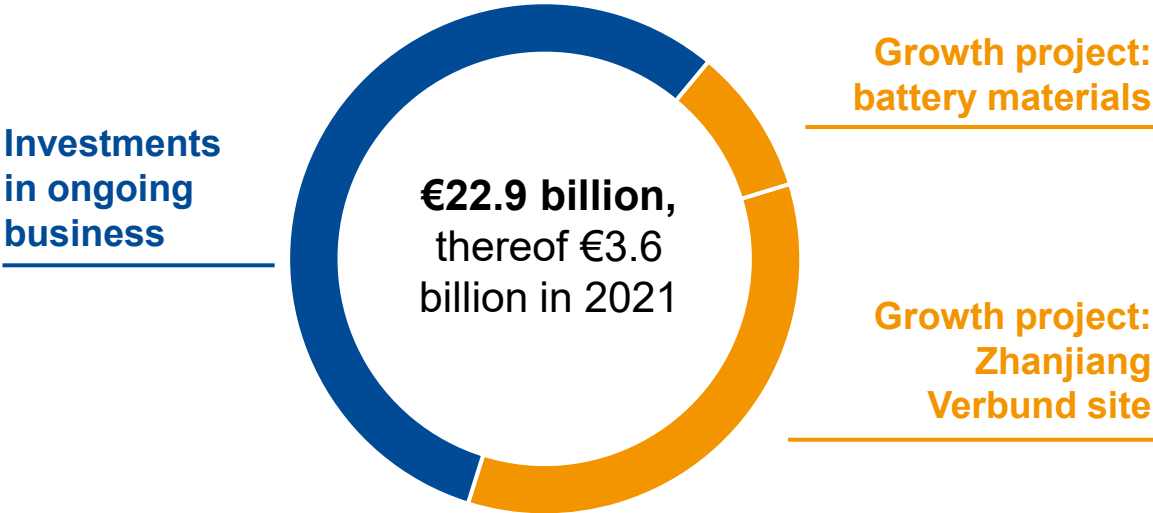
BASF Group: High capex discipline in ongoing business to support investments in growth projects

Capex budget by type of investment
billion €, 2021–2025



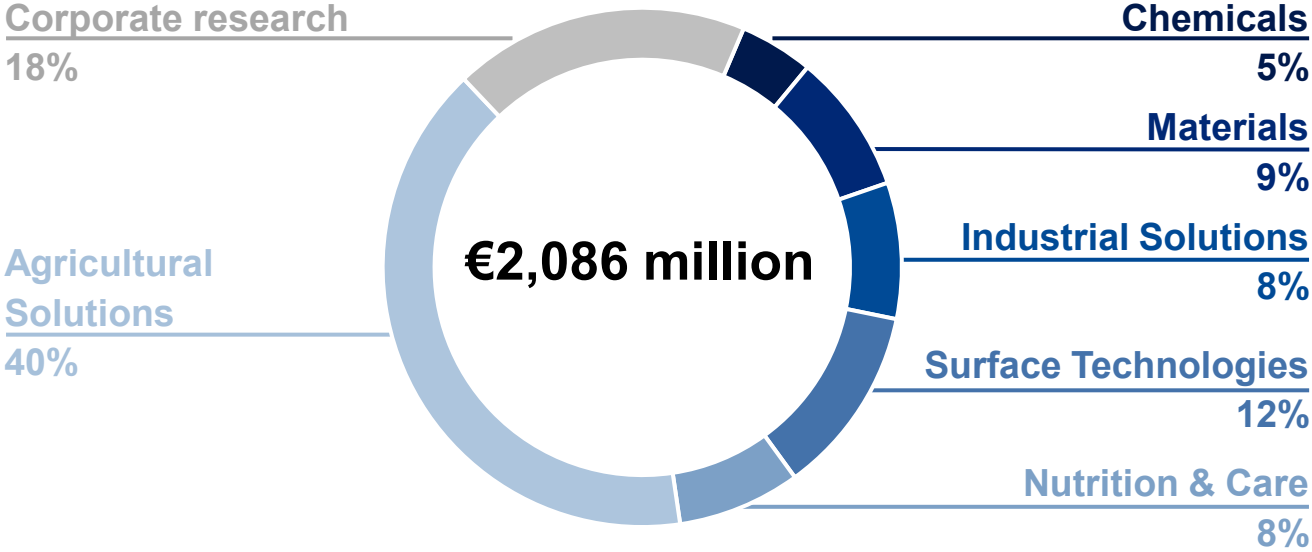
■ Growth projects: Zhanjiang Verbund site and battery materials
■ Investments in ongoing business

Capex budget by type of investment
billion €, 2021–2025



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

R&D expenses 2020

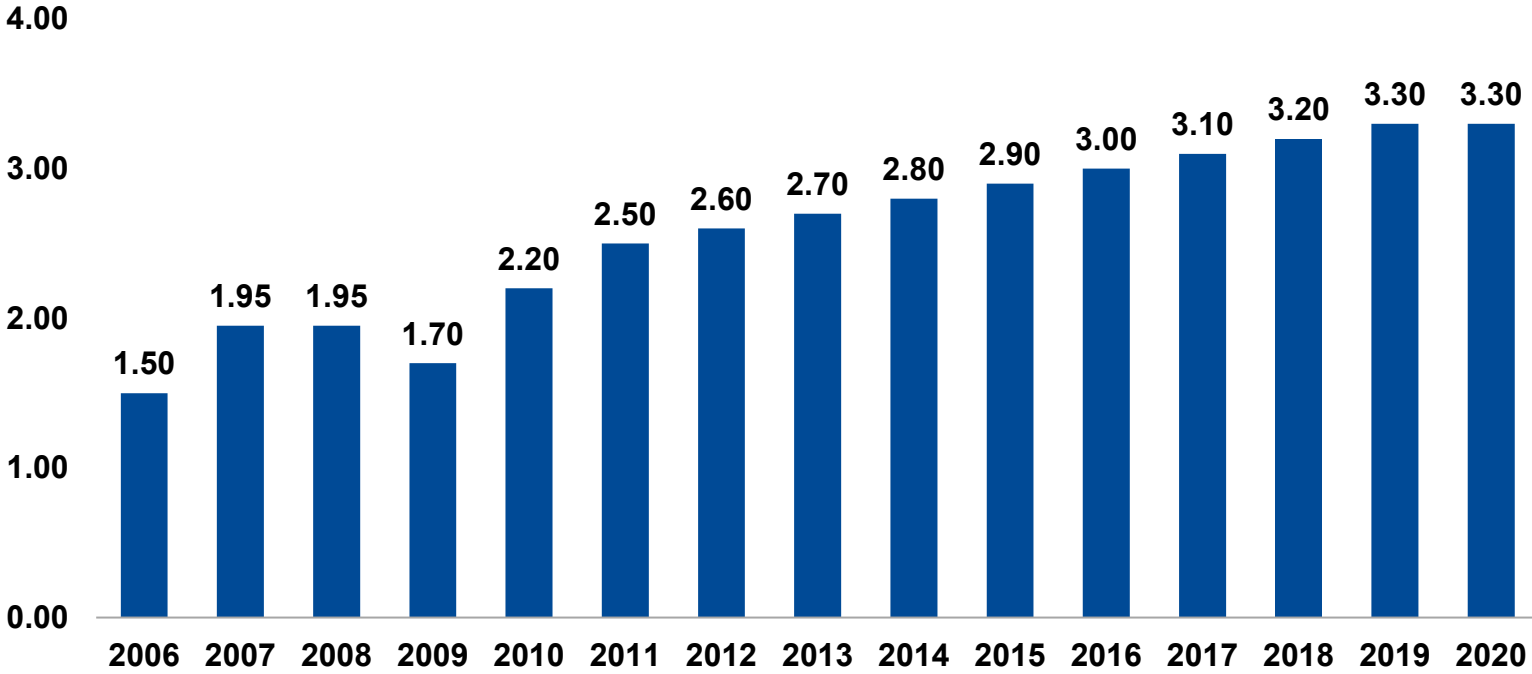


Key facts 2020

- R&D expenses to sales ratio ~3.5%
- Commitment to R&D with annual spending of ~€2.0 billion
- ~10,000 employees in R&D
- ~950 new patents filed in 2020
- Research Verbund: 8 Academic Research Alliances are complemented by cooperations with ~250 universities and research institutes
- ~€10 billion sales generated from R&D activities with products launched during last 5 years
- Accelerator sales of €16.7 billion in 2020; €22 billion in Accelerator sales targeted by 2025
- Peak sales potential of BASF's Agricultural Solutions innovation pipeline of >€7.5 billion between 2020 and 2030

Attractive shareholder return – also in challenging times

Dividend per share €



Year	Yield ¹
2006	4.1%
2007	3.9%
2008	7.0%
2009	3.9%
2010	3.7%
2011	4.6%
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%

Key facts 2020

- Stable dividend of €3.30 per share
- Total dividend payment of €3.0 billion
- Dividend yield of 5.1% based on the share price of € 64.72 at year end 2020



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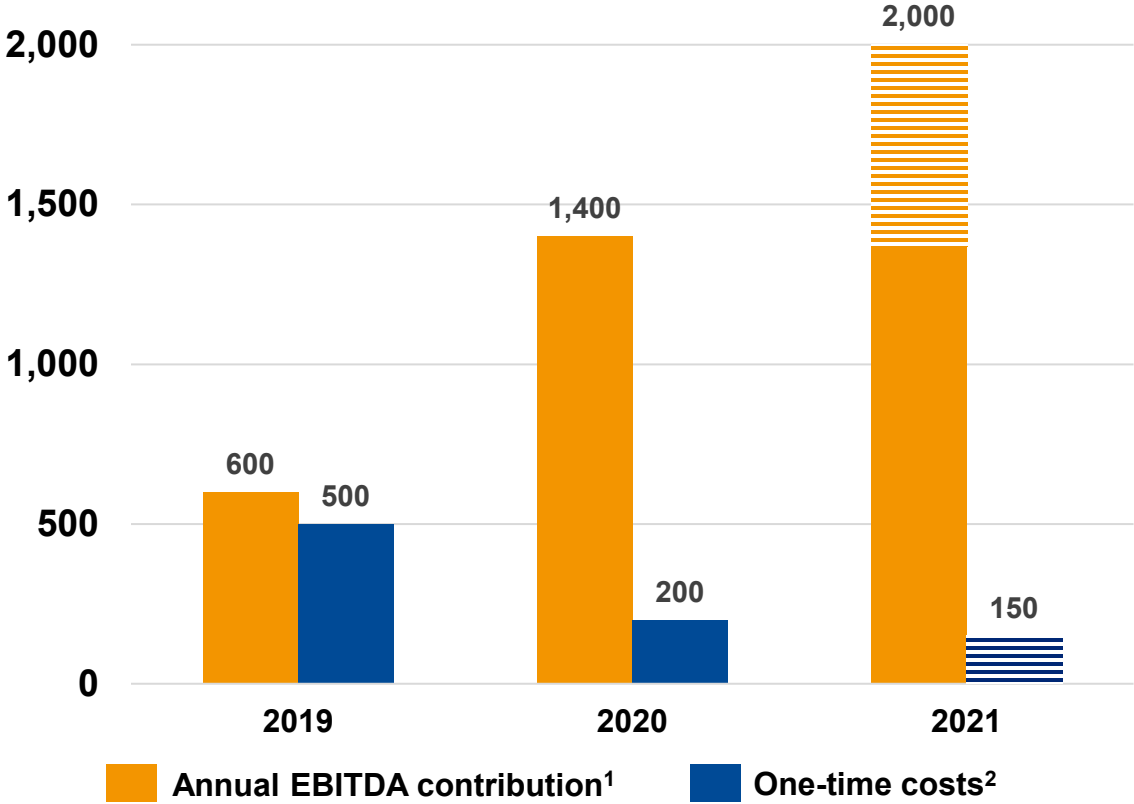
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Excellence Program 2019–2021: On track to achieve the targeted annual EBITDA contribution

million €



Key measures:

- Operational excellence with focus on production, logistics and planning
- Organizational development targeting leaner structures in the areas of services, headquarters and R&D
 - Personnel cost savings: reduction of ~5,600 positions globally achieved by the end of 2020; around 7% of the personnel reduction delayed into 2021
 - Increased process efficiency, e.g., in procurement
 - R&D cost reduction via focusing budgets

We have consistently refocused our portfolio towards 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

Recent portfolio measures: Acquisitions



BASF and Shanshan formed a joint venture for battery materials production in China

- BASF holds 51% and Shanshan 49% in BASF Shanshan Battery Materials Co., Ltd.
- BASF investment in a mid-triple-digit million-euro range
- BASF Shanshan Battery Materials operates four production sites for CAM and PCAM in China, with an annual capacity of 90 kt by 2022
- By forming the JV, BASF further strengthened its position in Asia and is increasing its global annual capacity to 160 kt by 2022 with further expansions underway
- Closing took place on August 31, 2021



Photo: Vattenfall / Jorrit Lousberg

BASF acquired 49.5% of the offshore wind farm Hollandse Kust Zuid (HKZ) from Vattenfall

- Once fully commissioned HKZ will be the largest offshore wind farm in the world with a total installed capacity of 1.5 gigawatts
- BASF will use the zero-emission electricity for its sites in Europe, mainly in Antwerp, Belgium
- Purchase price of €0.3 billion, BASF's initial total commitment is ~€1.6 billion; closing took place on September 1, 2021
- BASF to sell 25.2% of the offshore wind farm HKZ to Allianz; closing of the transaction with Allianz expected in Q1 2022

Recent portfolio measures: Divestitures



DIC acquired BASF's pigments business

- Sales 2018: ~€1 billion
- BASF and DIC reached an agreement on the acquisition of BASF's pigments business in August 2019
- Purchase price of €1.15 billion¹
- Closing took place on June 30, 2021



BASF and Clayton, Dubilier & Rice to sell Solenis to Platinum Equity

- Sales 2020²: \$2.8 billion
- Enterprise value: \$5.25 billion for Solenis, which includes net debt of around \$2.5 billion
- BASF holds 49% of the shares in Solenis; 51% of the shares are held by Clayton, Dubilier & Rice and the Solenis management
- Closing took place on November 9, 2021



Initial public offering of Wintershall Dea

- Sales 2020: ~€3.6 billion
- Merger took place on May 1, 2019
- Realization of synergies on track, integration completed
- Initial Public Offering planned beyond 2021, subject to market conditions

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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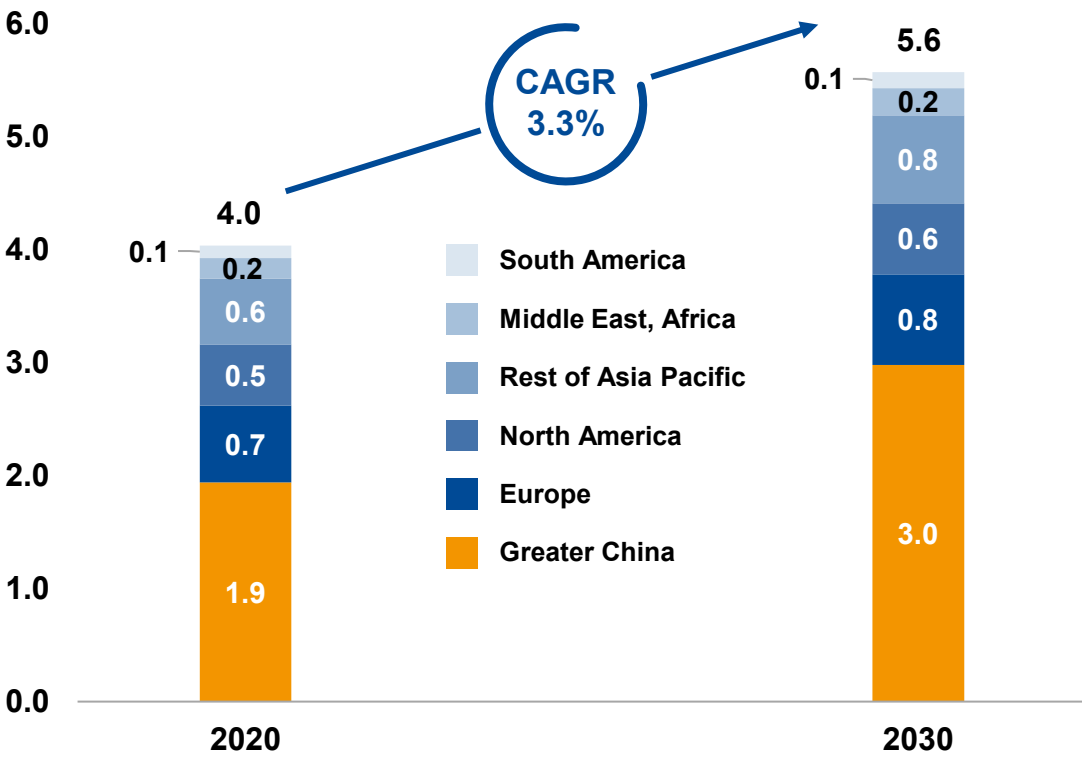
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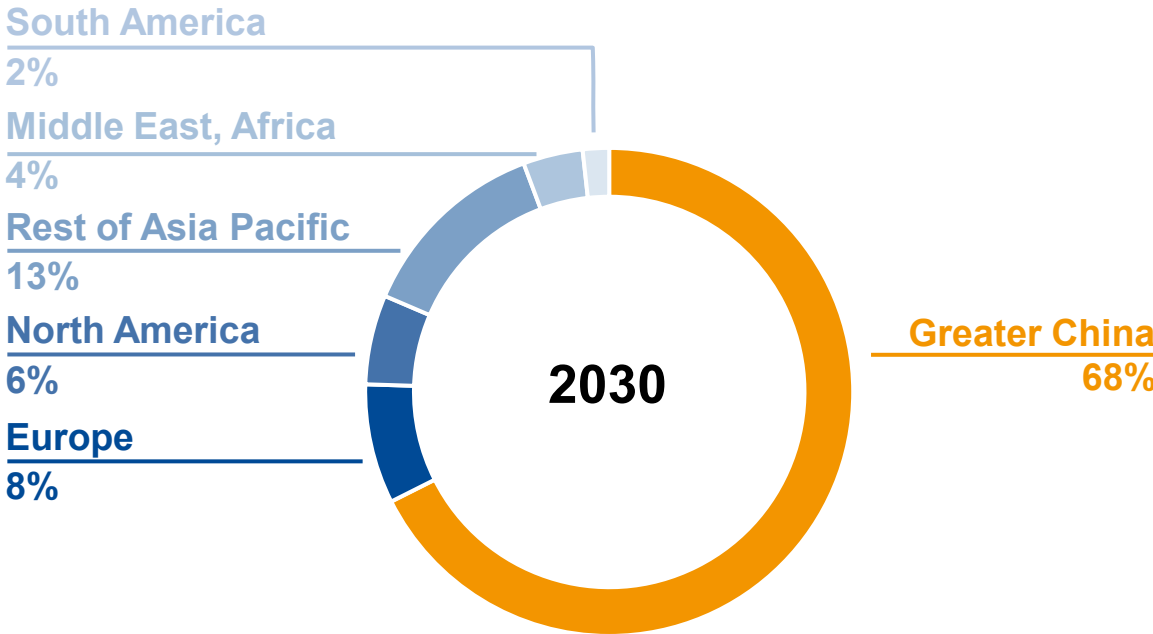
Reporting

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

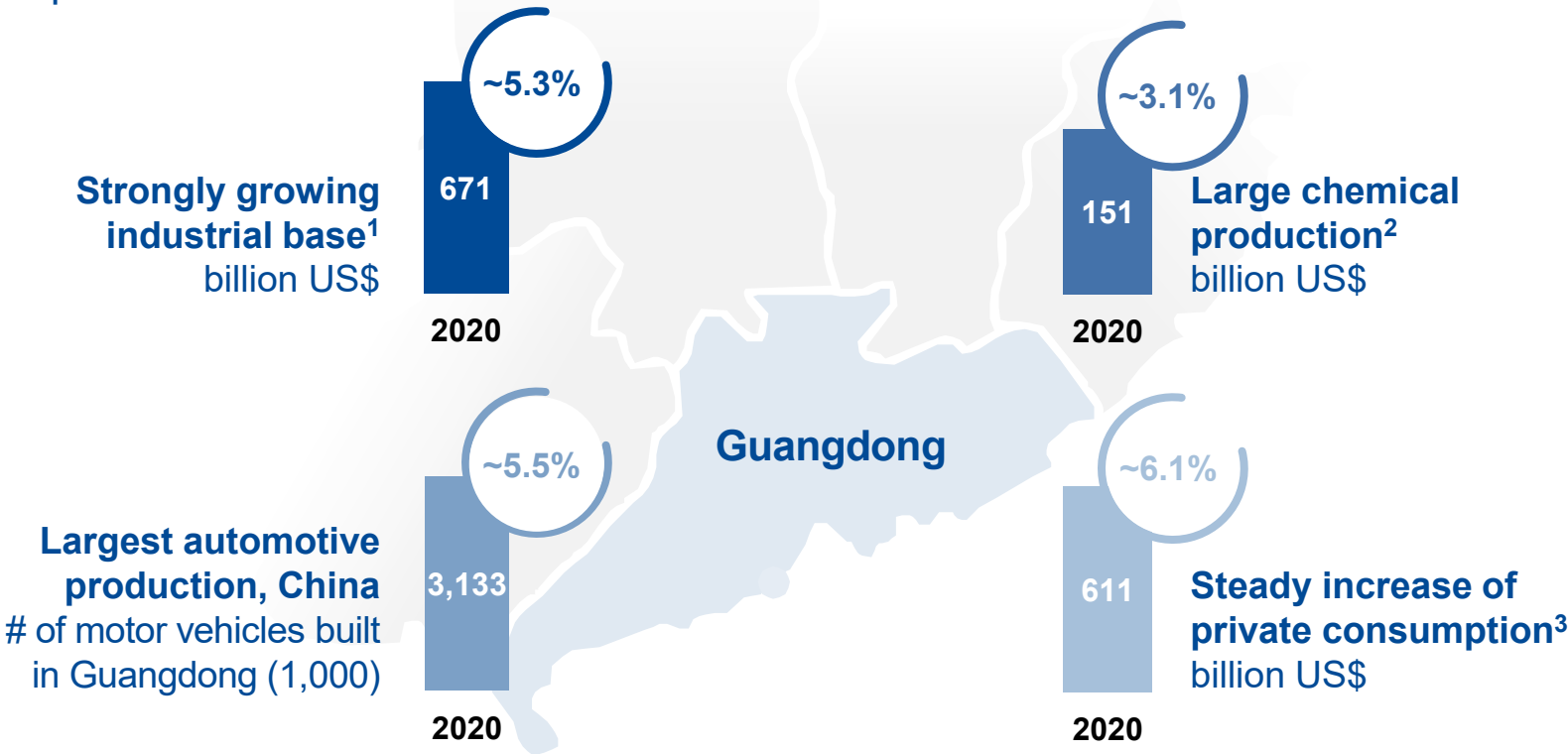


- **50:50 joint venture with Sinopec** founded in 2000, start-up in 2005, major expansions in 2011 and 2014
- Scope has **continuously expanded** over the years towards longer and more diversified value chains
- **Third-largest BASF site**, US\$5.8 billion gross investment (100%)
- Capacity: ~3 million 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 **23% EBITDA margin¹** BASF-YPC is one of the most profitable BASF sites

Guangdong is home of key customers from fast-growing industries

CAGR 2015–2020

% p.a.



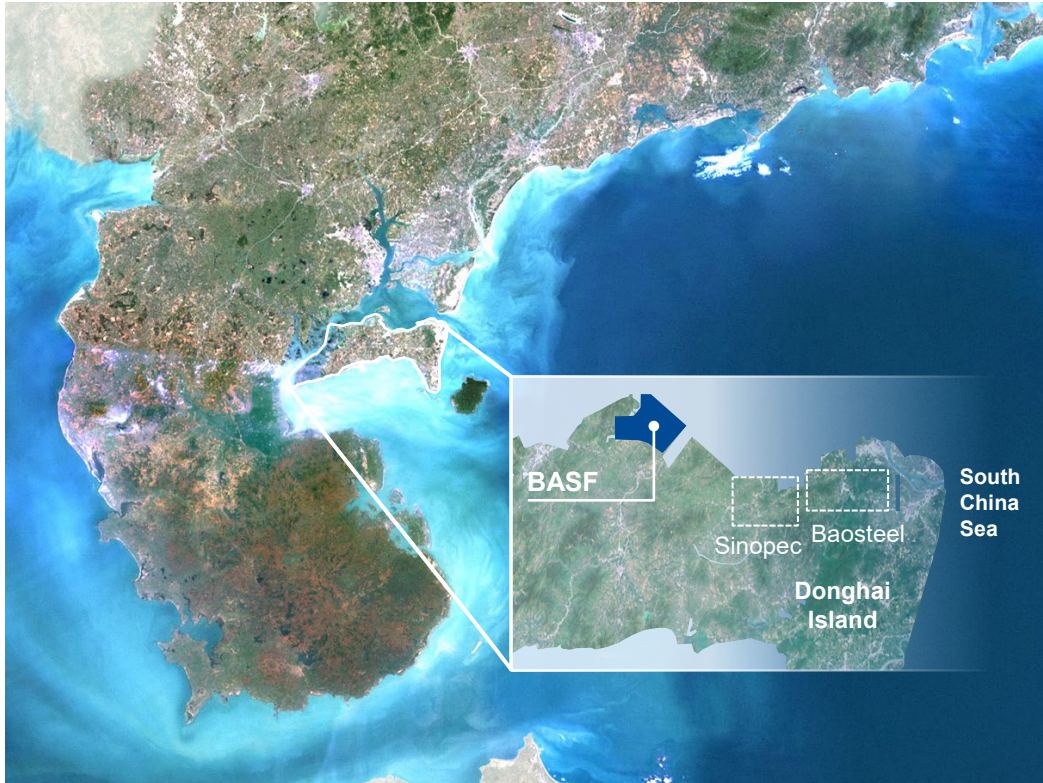
Market characteristics

- Around 126 million residents in Guangdong province (2020)⁴
- GDP Guangdong (2020): ~US\$1,608 billion (closely trailing South Korea)
- GDP growth from 2020–2035: 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 value added, manufacturing Guangdong
² Real chemical production Guangdong; inferred by gross output/value added ratio for China
³ Real private consumption Guangdong; IHS forecast
⁴ General Office of Shenzhen Municipal People's Government



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 – stepwise approach

Initial phase
on stream: 2022–2023

First downstream plants:
Performance Materials for automotive 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

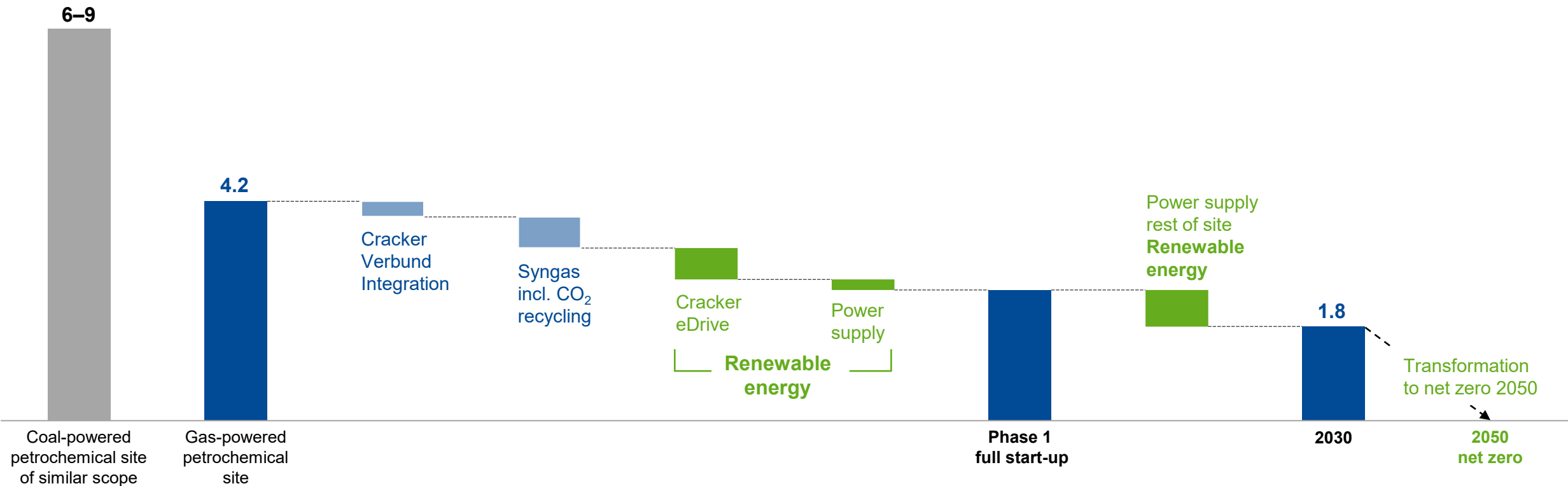
Key customer industries

- Transportation
- Electronics
- Consumer goods
- Health and nutrition

Production plants of the initial phase can operate without integration, while phase 1 and 2 will form the foundation for the development of the BASF Verbund site

BASF's Zhanjiang Verbund site will have the lowest projected CO₂ footprint in the world

Projected BASF CO₂ emissions of Verbund site in South China
million metric tons



Key financials of BASF's new Verbund site in Zhanjiang

Projected key financials by 2030

€4.0–5.0 billion
sales

€1.0–1.2 billion
EBITDA

€8.0–10.0 billion
total capital expenditures
(peak: 2023–2025)

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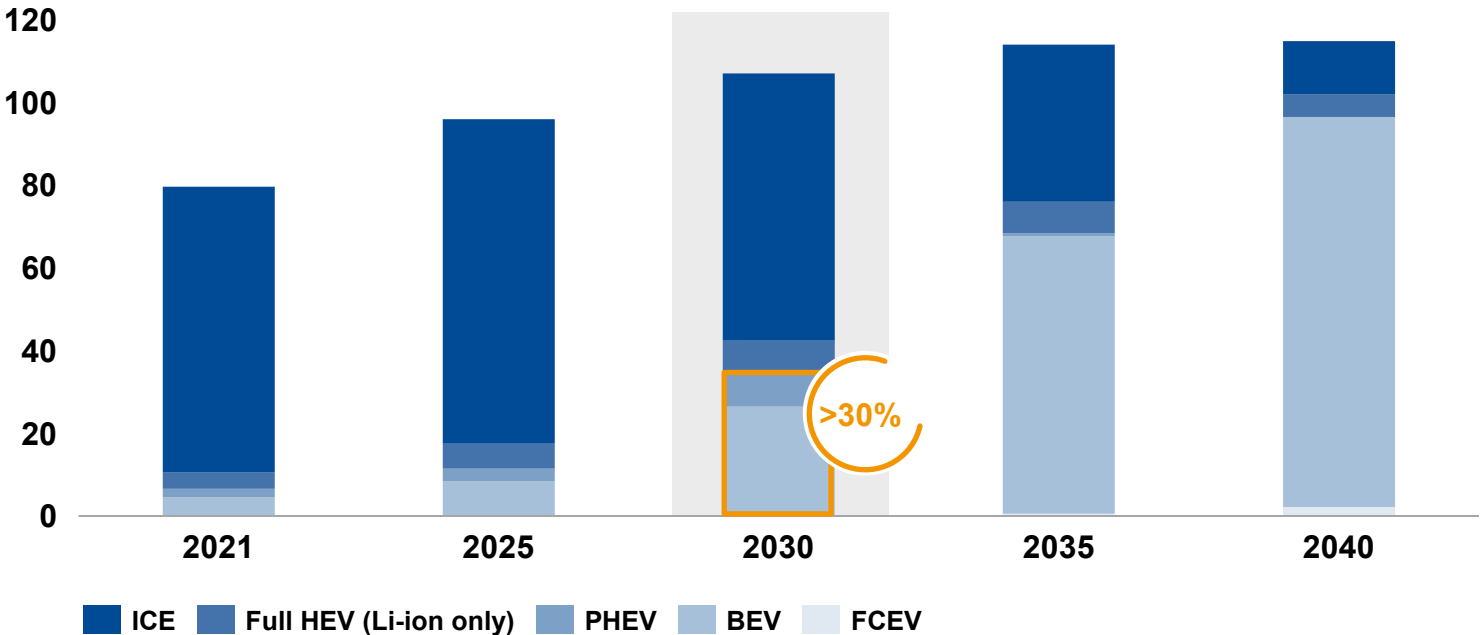
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The automotive industry is in the middle of a major transformation towards electromobility

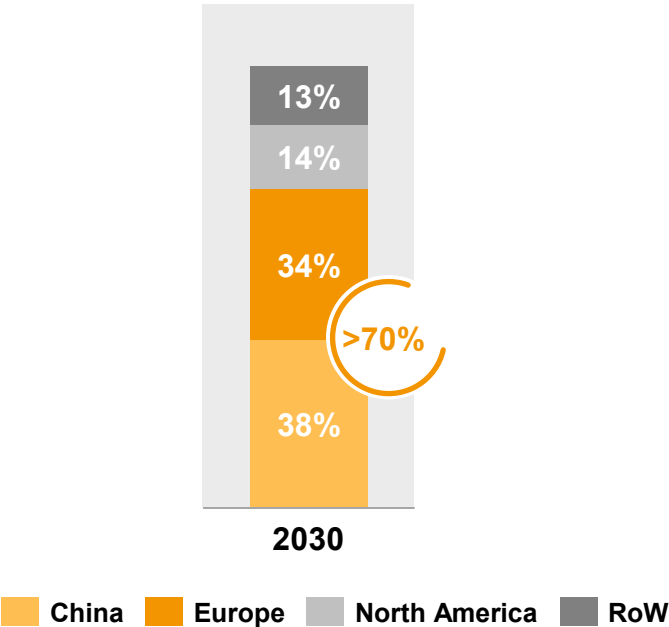
Powertrain development

Light-duty vehicle production volume (million units)



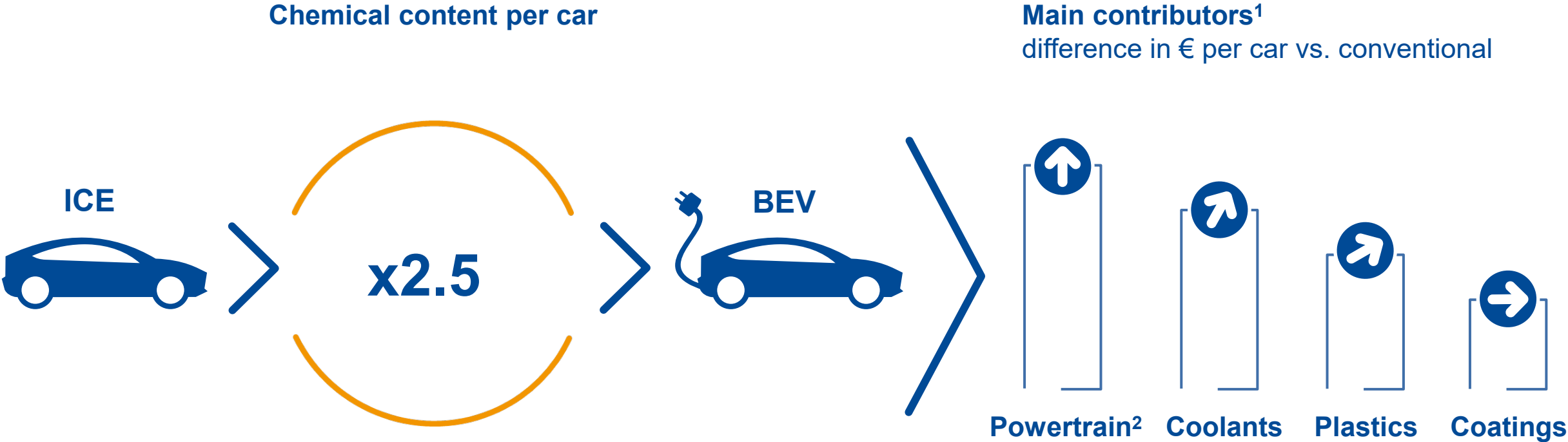
Regional BEV split

%



By 2030, we expect that >30% 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



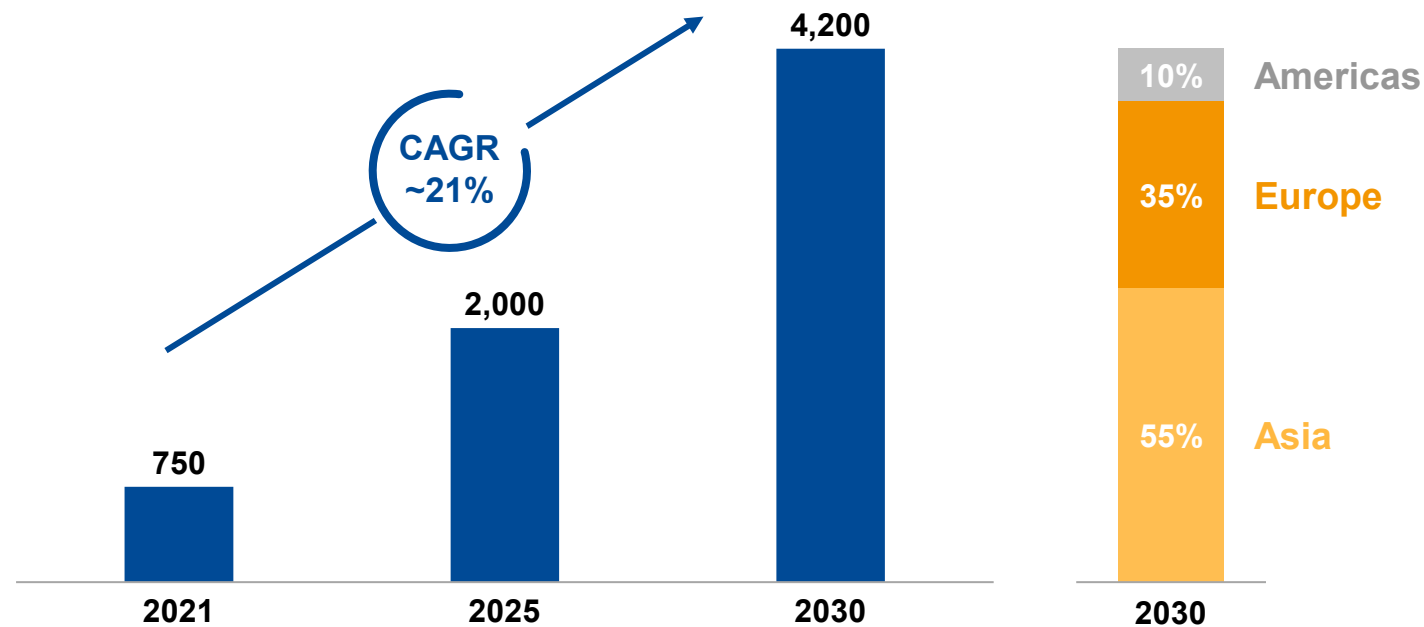
The cathode active material (CAM) as key component of any battery cell more than doubles the chemical content which can be found in today's average ICE vehicle

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 ~21% per year and reach a total size of 4,200 kt by 2030

Global CAM market forecast¹

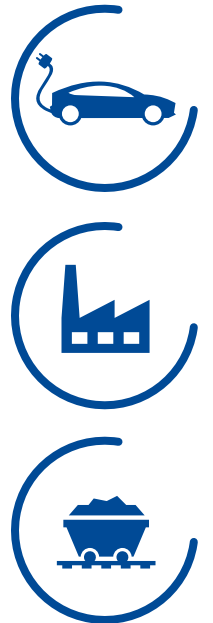
kt



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)

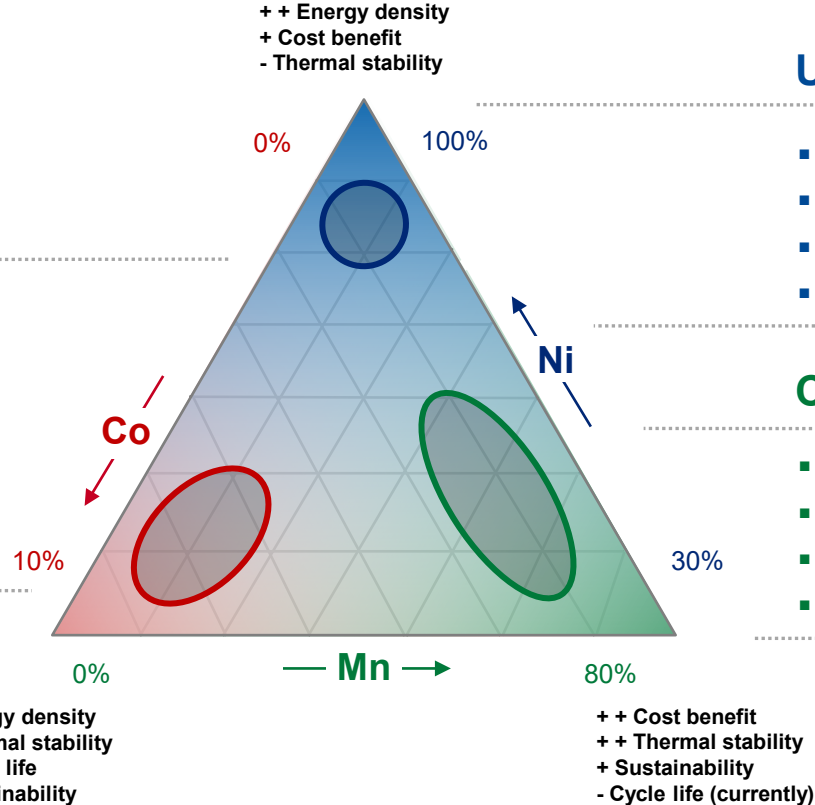


CAM market size expected to reach €100 billion by 2030, driven by battery performance, safety and cost aspects – which are all key parameters for BEVs

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

2012

First CAM production facility in Elyria, Ohio

2018

Second CAM production facility in Battle Creek, Michigan

R&D center in Beachwood, Ohio

Europe greenfield production under construction

R&D center in Ludwigshafen, Germany

2022

CAM precursor production in Harjavalta, Finland planned

2022

CAM production and recycling prototype plant (2023) planned in Schwarzheide, Germany

R&D center in Shanghai, China

Production in China

2021

BASF Shanshan Battery Materials, serving the largest battery materials market, China

2015

Foundation of BASF TODA Battery Materials, Japan, with R&D center

2017

Tripled capacity at BASF TODA Battery Materials in Onoda, Japan

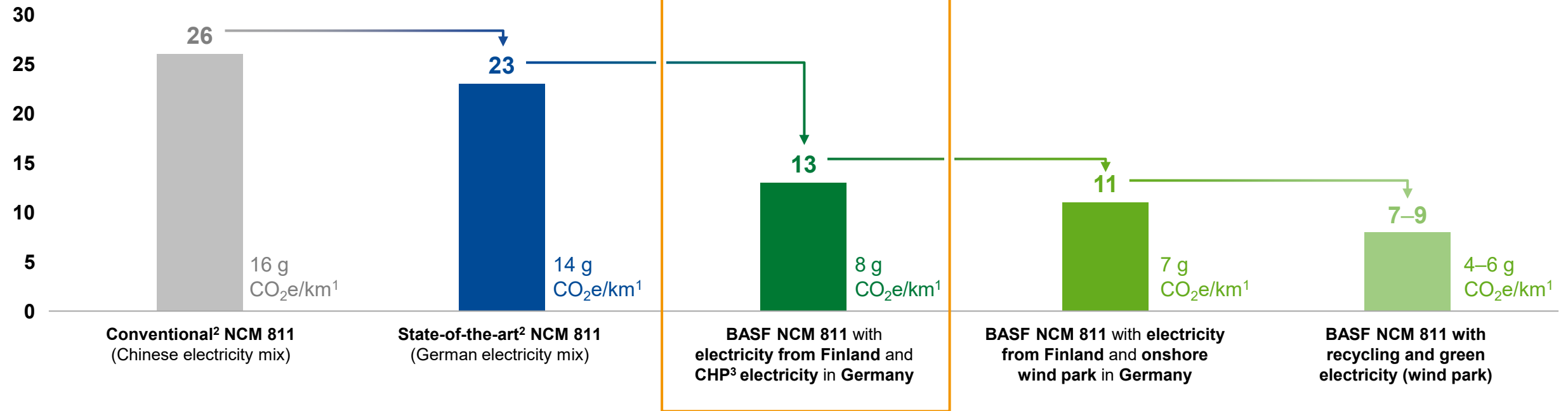
2020

BASF and Eramet to assess nickel-cobalt refining complex in a feasibility study in Weda Bay, Indonesia

- Production sites
- Research & development hubs

As a result of our holistic approach, we can offer CAM products with best-in-class CO₂ footprint with further reductions planned

Carbon intensity
kg CO₂e/kg



By 2022, BASF's CAM related CO₂ burden will be 40% below benchmark players and >70% lower than worst-in-class CAM producers once targeted set-up is in place

¹ Assumption: 100 kWh = 125kg CAM material per car and a lifetime of 200,000 km

² Conventional and state-of-the-art NCM 811 numbers are calculated based on bill-of-material data from Argonne, 2018 (GREET-model) with German and Chinese electricity grid mix datasets from Sphera

³ Combined heat and power plant, based on natural gas

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

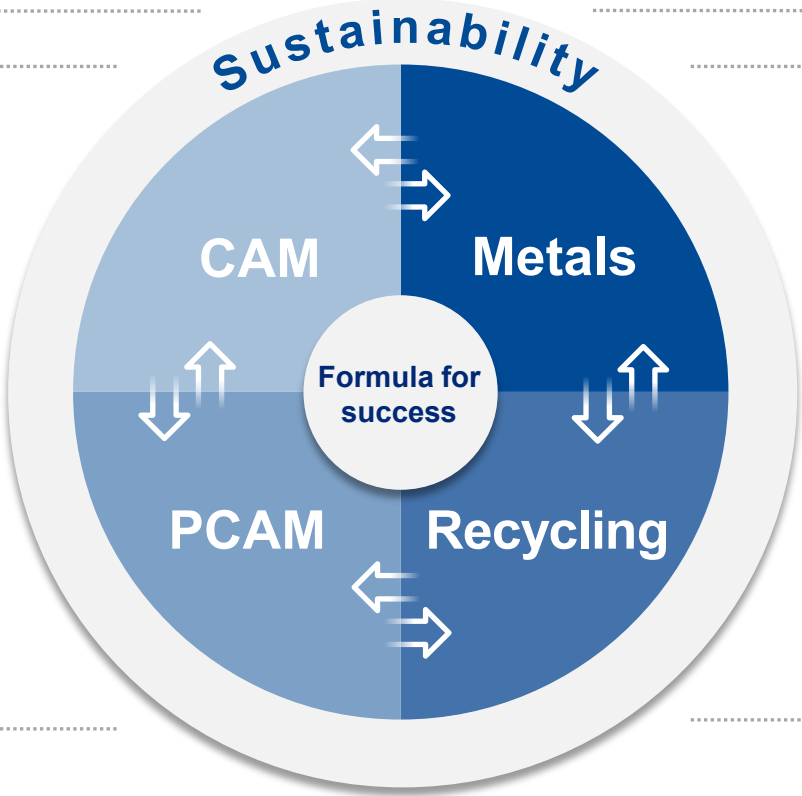
>€1.5 billion sales by 2023	>10% market share targeted	>30% EBITDA bsi margin (excl. metals)	~€3.5–4.5 billion capital expenditure 2022–2030
>€7 billion sales by 2030			

- 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

- Domestic sourcing and production
- Secure and sustainable supply

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

- 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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Unique position to capture
growth in Asia

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Battery materials driving
electromobility and future
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Our commitments to reaching the Paris Climate Agreement

2030

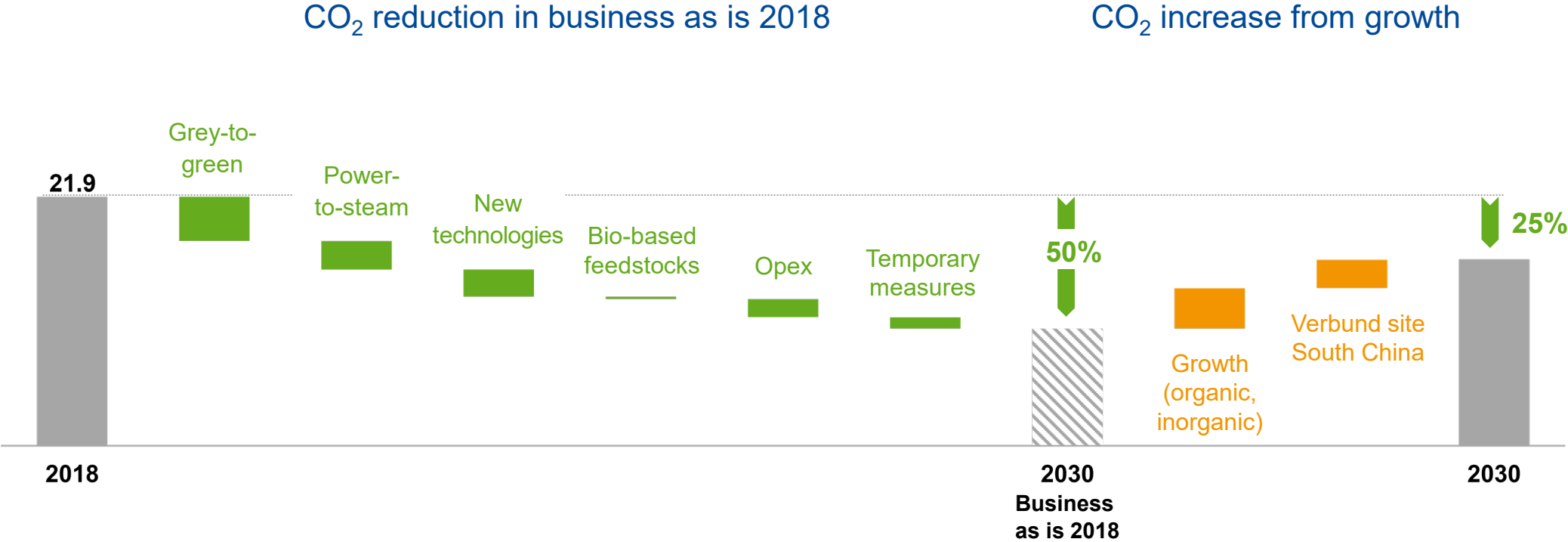
25%
CO₂ emissions
reduction
(compared with 2018)¹

2050

net zero
CO₂ emissions¹

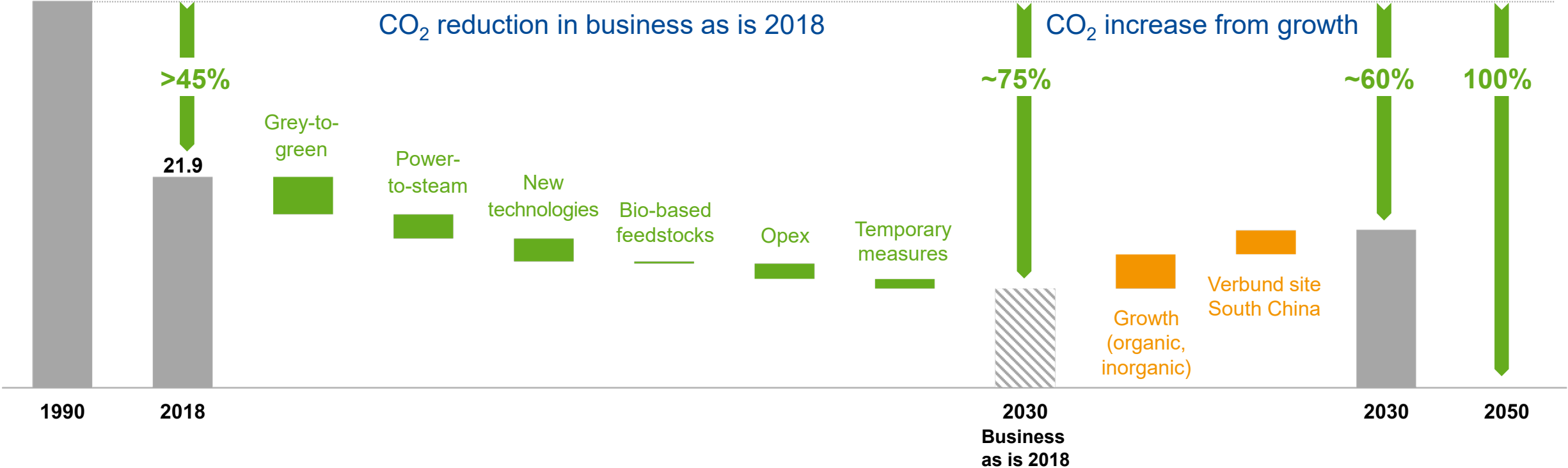
Our path to reduce BASF emissions from 2018 to 2030

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



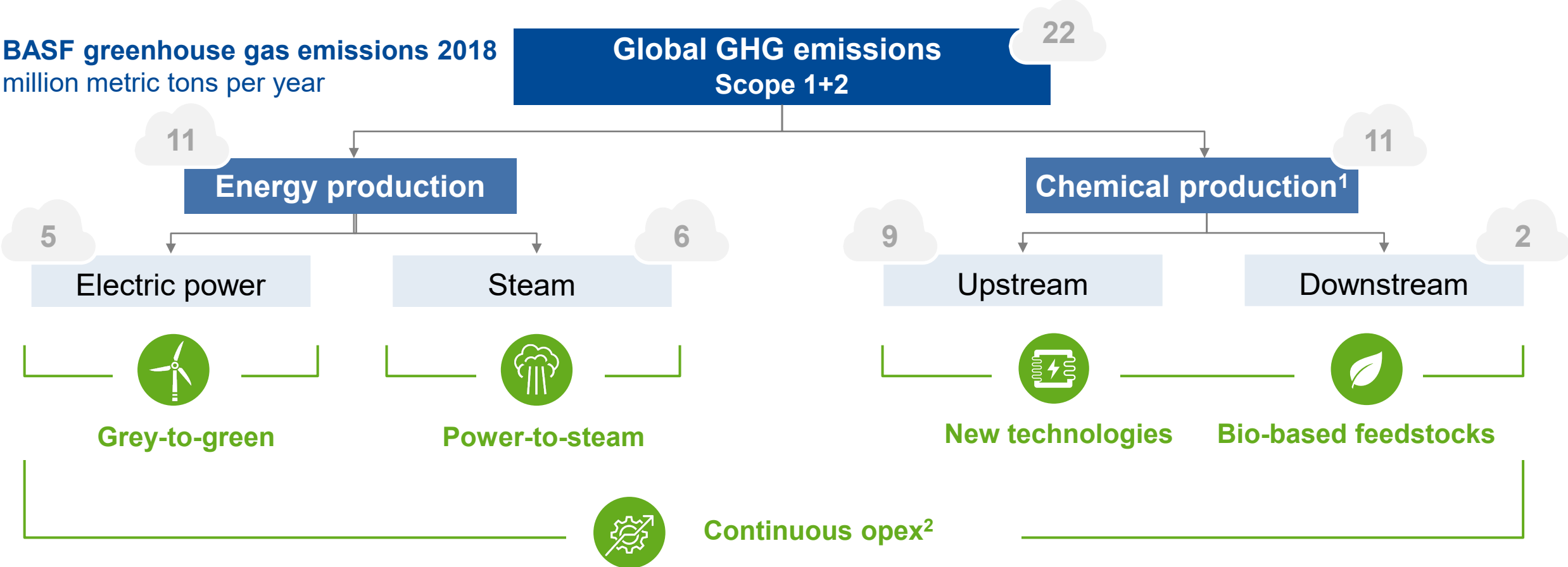
Our path to reduce BASF emissions from 1990 to 2050

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



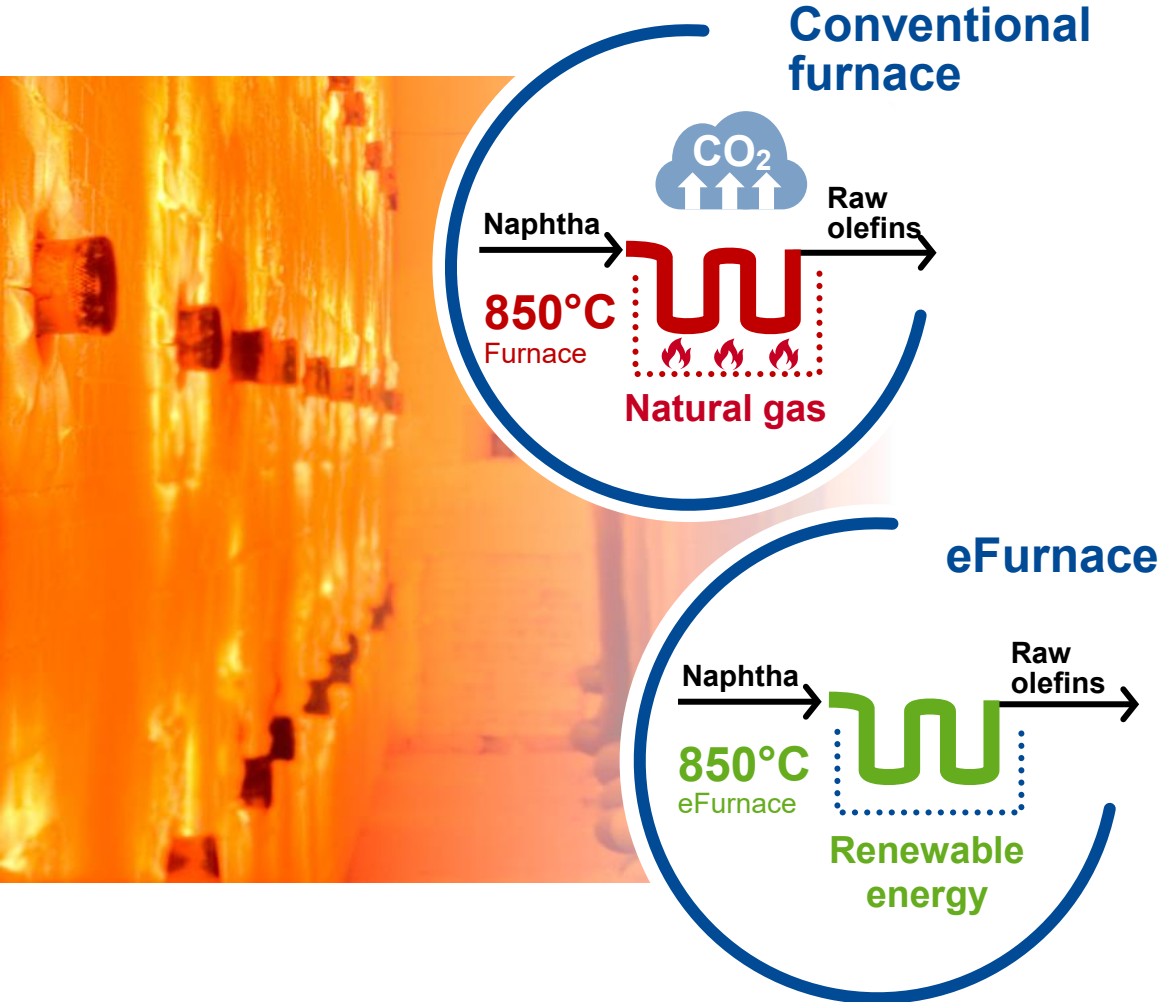
No downstream decarbonization without upstream decarbonization

BASF greenhouse gas emissions 2018
million metric tons per year



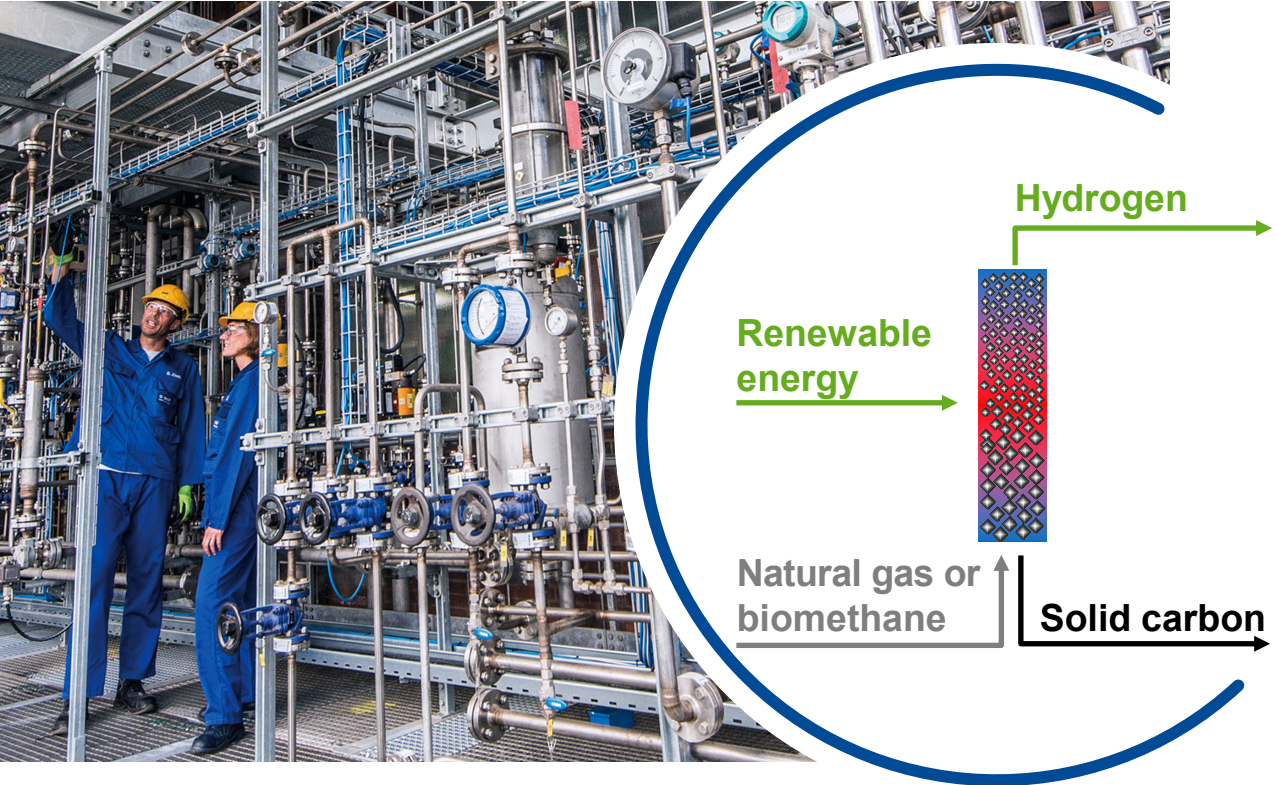
¹ Includes emissions from process energy ² Operational excellence measures

BASF, SABIC and Linde join forces to realize the world's first electrically heated steam cracker furnace



- Goal is to drive concepts and faster implementation through combined strengths
 - ▶ BASF and SABIC: extensive know-how and intellectual property in developing chemical processes; long-standing experience and knowledge in operating steam crackers
 - ▶ Linde: expertise and intellectual property in developing and building steam cracking furnace technologies and driving future industry commercialization
- Construction of a demonstration plant depending on funding granted – application for grants from German funding program “Decarbonization in Industry”
- If funding is granted, startup could happen as fast as 2023

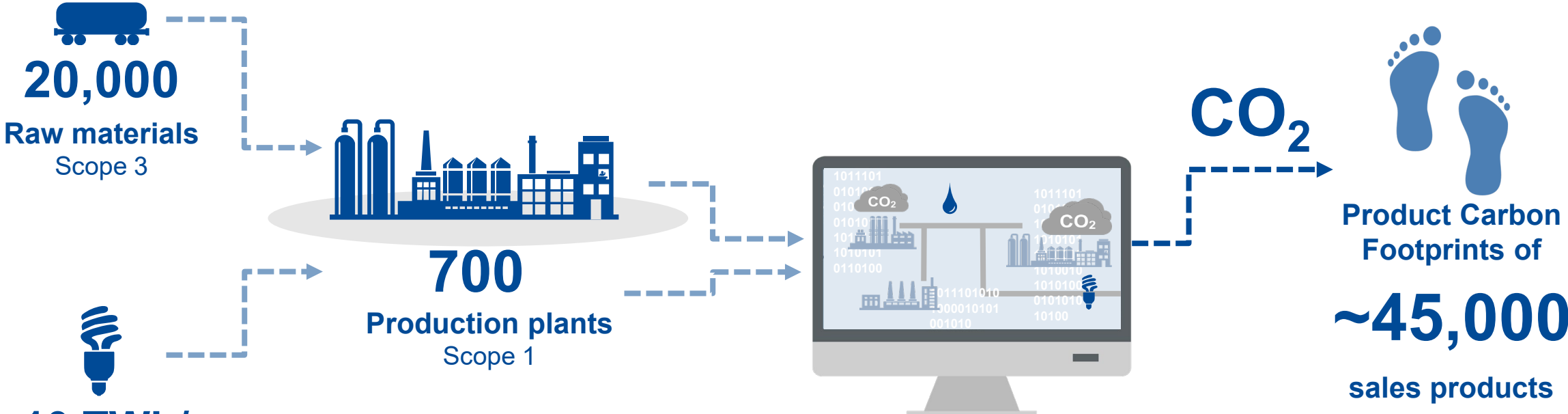
Methane pyrolysis combines low emissions with low energy demand



- **Methane pyrolysis** requires around **80% less electricity** than water electrolysis
- **Funding** for pilot reactor **was granted** by German Federal Ministry of Education and Research
- **Pilot reactor** at the Ludwigshafen site
- Start-up of **first commercial plant projected for 2030**

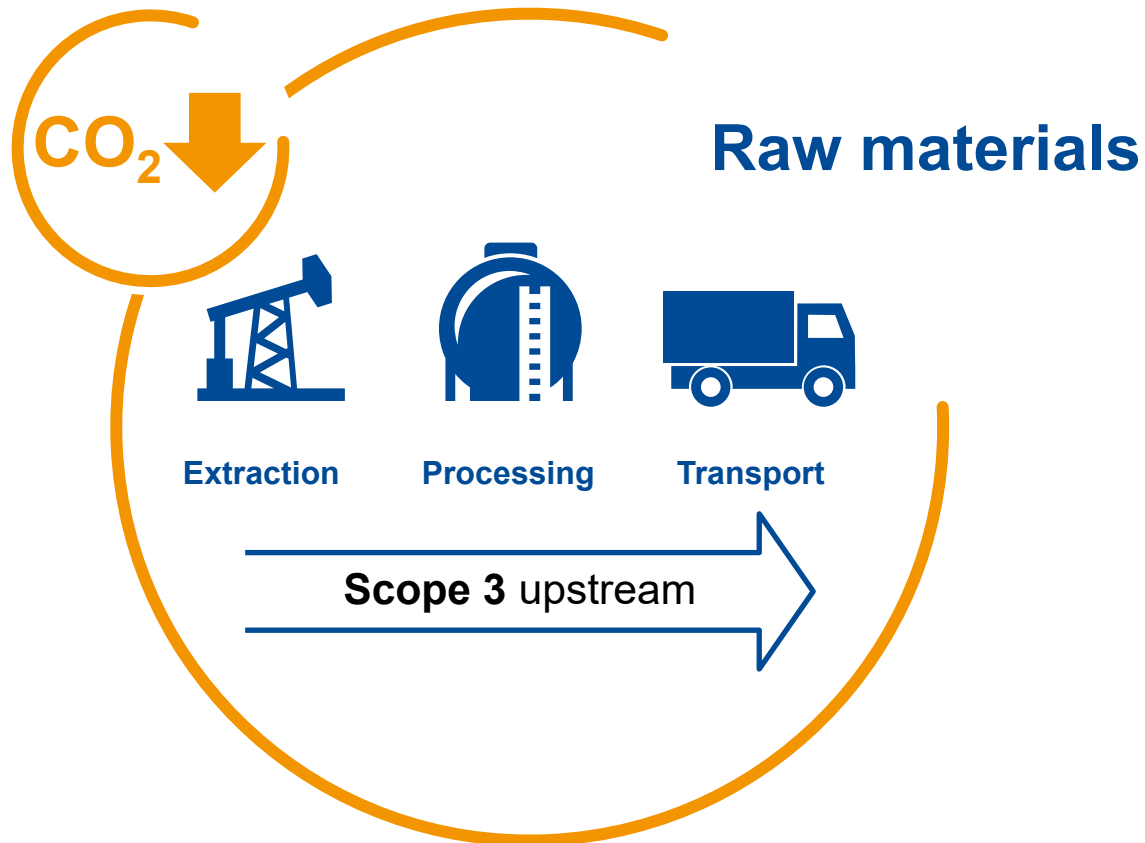
We have achieved a milestone in scaling up our groundbreaking methane pyrolysis process for hydrogen production

Turning Carbon Management into business opportunities



Cradle-to-gate Product Carbon Footprints for BASF’s portfolio available by end of 2021 based on process emissions, energy demand and upstream emissions

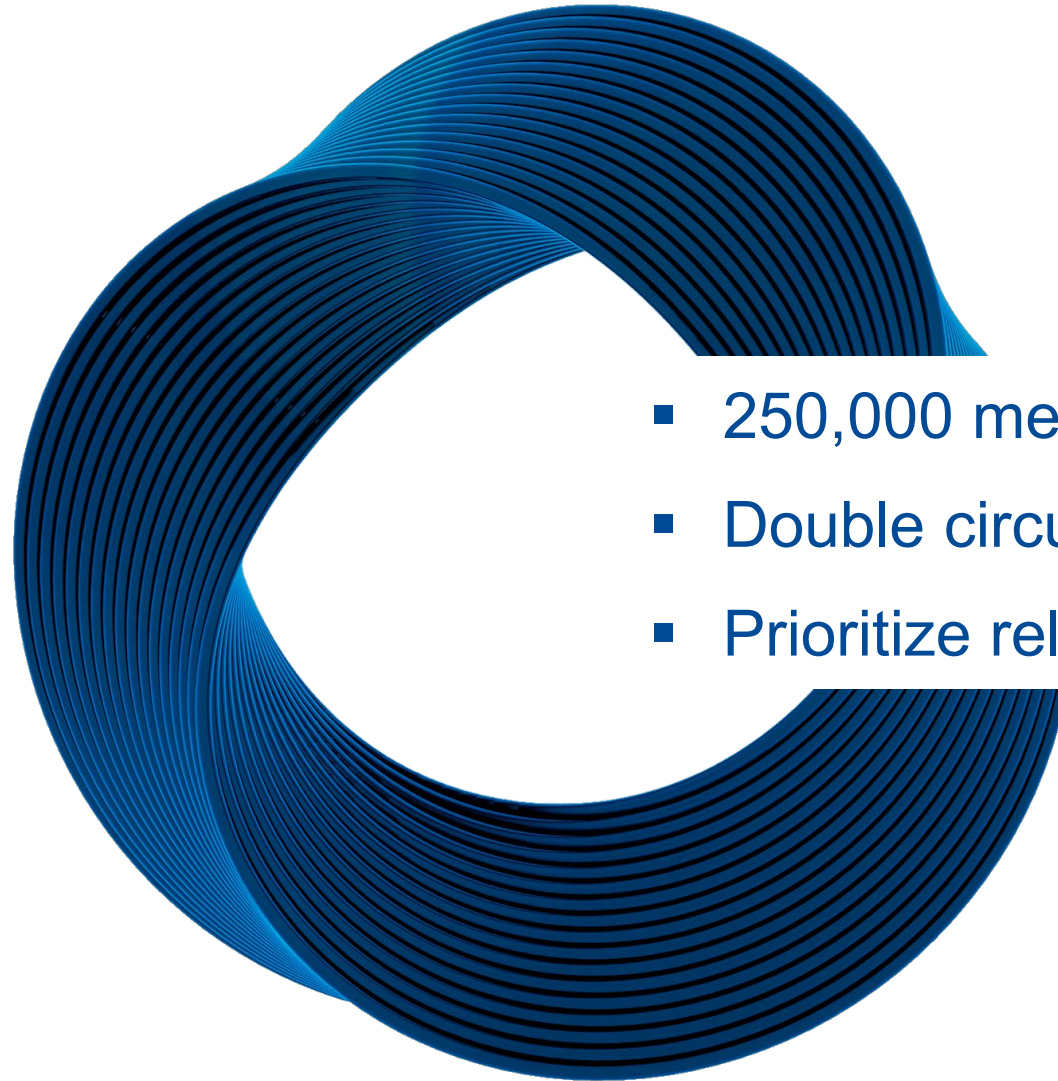
What we expect from our suppliers: Transparency on and reduction of CO₂ emissions



- BASF is establishing certified, full CO₂ tracing (Product Carbon Footprint) and needs transparency from its suppliers for this
- To support its suppliers and the industry, BASF will share its knowledge to create an international standard for CO₂ transparency tools
- BASF will work together with its suppliers and expects them to reduce the CO₂ footprint of their products

BASF will work all levers to reduce CO₂ emissions

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

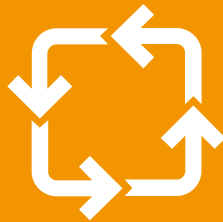
From a linear to a more circular economy

– 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

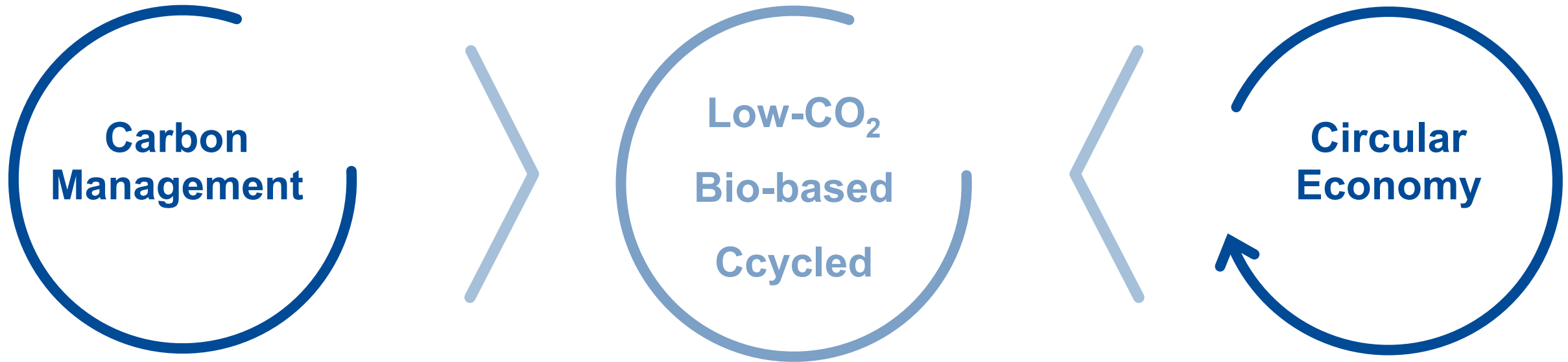


Littering



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

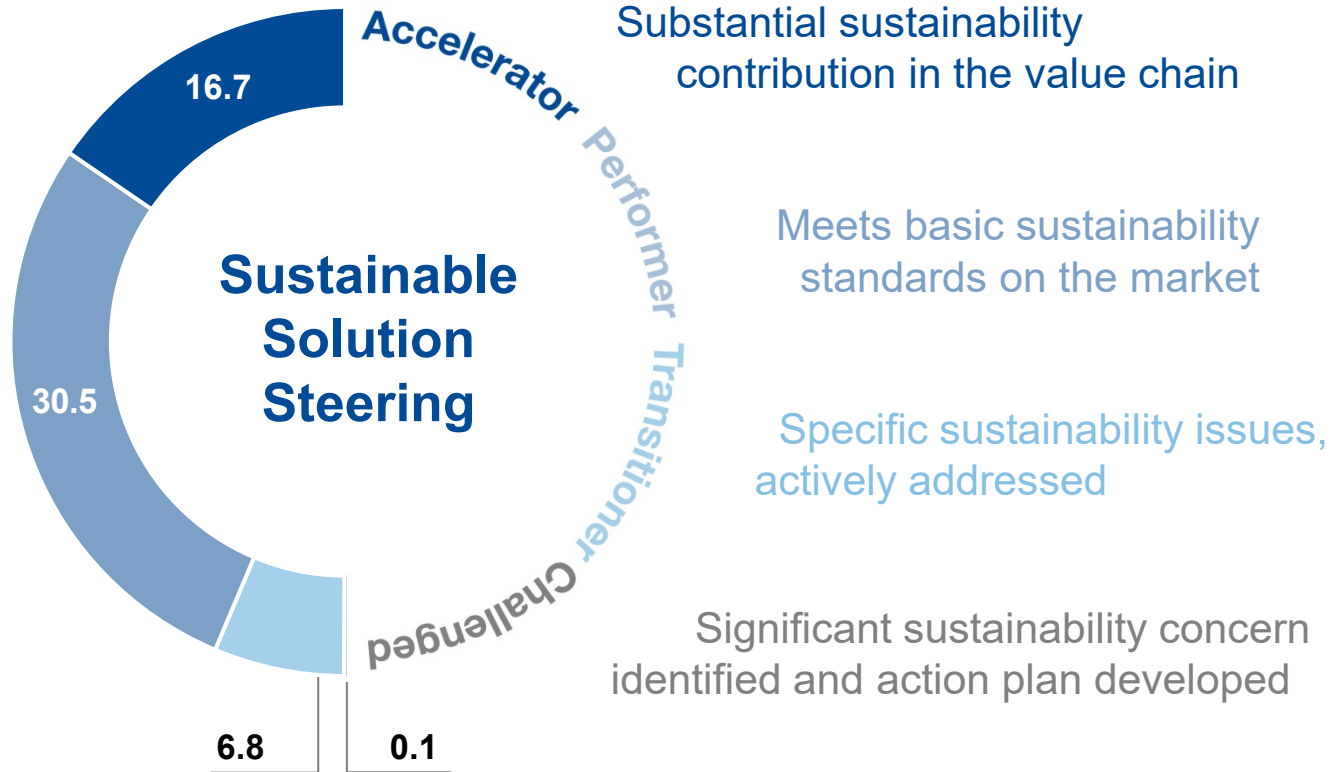
Target: We aim at doubling our circular sales to reach €17 billion by 2030

Focus on closing the loops

- Renewable-based feedstocks
- Recycled-based feedstocks
- Enable recyclability and/or biodegradability

€16.7 billion of BASF Group sales from sustainable solutions – leveraging our innovation power

Absolute sales 2020
billion €



- Portfolio segmentation: >57,000 specific product applications analyzed by 2020 (€54.1 billion in sales, 98.4% of relevant portfolio¹)
- Accelerator margins on average ~6 percentage points above the rest of assessed portfolio
- Goal: €22 billion of sales with Accelerator products by 2025 (2020: €16.7 billion)
- Stronger integration in R&D pipeline, business strategies and M&A projects
- We will stop selling Challenged products within maximum five years after classification

Innovations for a sustainable future – Accelerator examples



BASF in sustainability ratings and rankings

CDP

In 2021, BASF achieved a score of “A-” in the climate, the forests, and the water categories, thus attaining leadership status in all three categories.



Sustainalytics

BASF ranks among the top 10% of performers in diversified chemicals. The raters positively highlighted that sustainability targets are reflected in board compensation, underlining an overall strong management of ESG issues.



MSCI ESG Research

In 2021, BASF was rated “A.” The analysts highlighted that BASF is present in clean tech markets and has a robust carbon mitigation strategy.



FTSE4Good Global Index

BASF was included again in the FTSE4Good Global Index 2021, ranked best in class in Basic Materials as well as in the sub-sector Commodity Chemicals.



FTSE4Good

2021 UN Global Compact

BASF was recognized as a Global Compact LEAD company for demonstrating ongoing commitment to the UN Global Compact and its Ten Principles for responsible business and the Sustainable Development Goals.



United Nations
Global Compact

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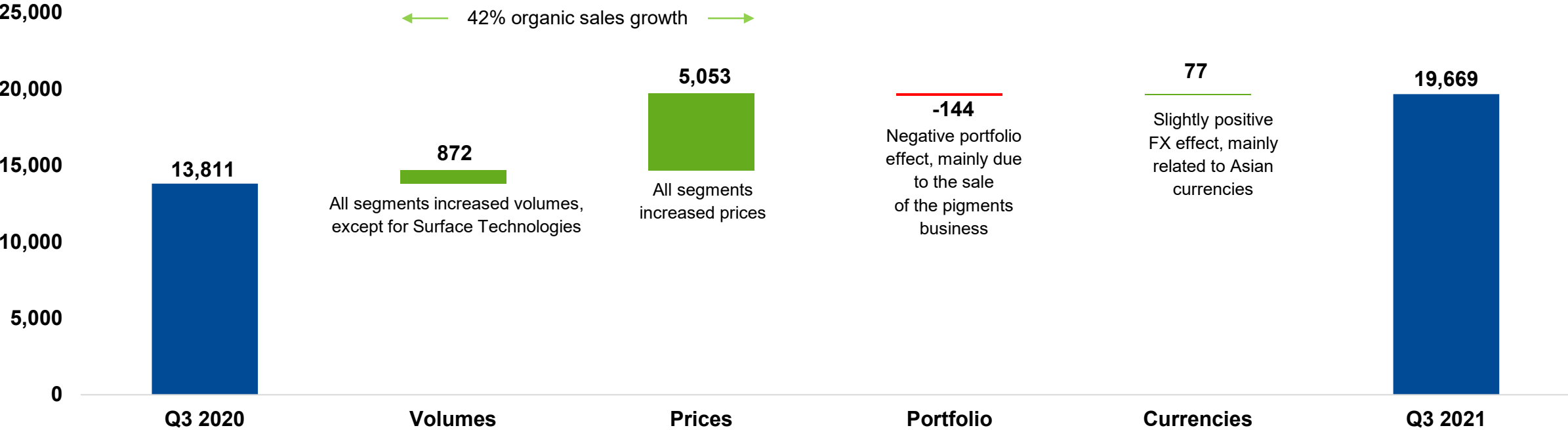
Pushing the transition to a
sustainable economy

6

Reporting

BASF Group Q3 2021: Sales increased considerably, mainly due to higher prices and volumes

Sales bridge Q3 2021 vs. Q3 2020
million €

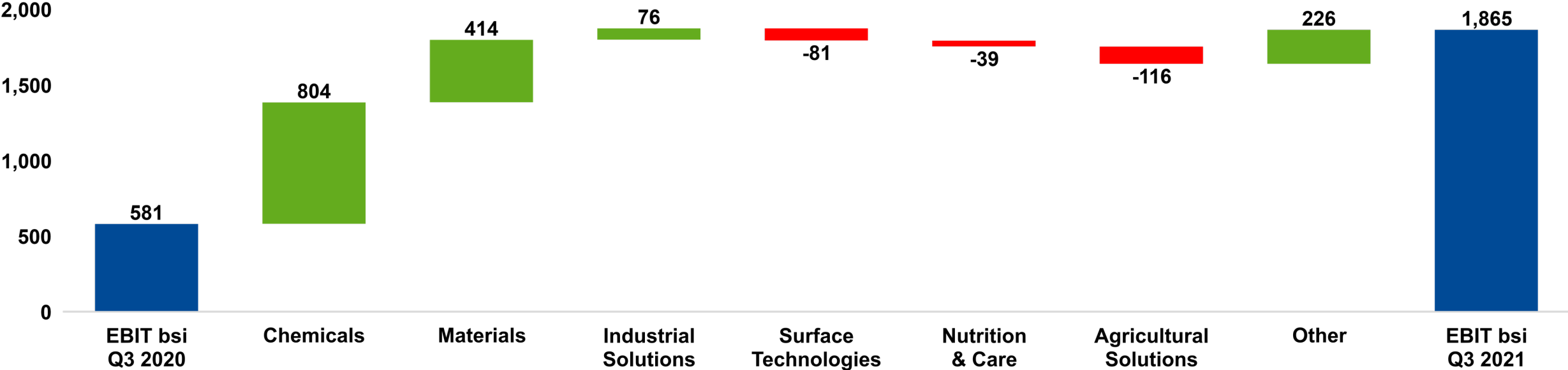


Sales development

Q3 2021 vs. Q3 2020	Volumes	Prices	Portfolio	Currencies	Q3 2021
	↑ 6%	↑ 36%	↓ -1%	↑ 1%	↑ 42%

BASF Group Q3 2021: Strong earnings in upstream business, while price increases in downstream business were not yet sufficient

EBIT before special items growth by segment Q3 2021 vs. Q3 2020
million €



EBIT before special items by segment

Q3 2021, million €	Chemicals	Materials	Industrial Solutions	Surface Technologies	Nutrition & Care	Agricultural Solutions	Other
	850	631	262	119	104	-90	-11

BASF's natural gas supply and demand balance in Europe

- **Natural gas demand:**
 - In Europe ~47 TWh, thereof Ludwigshafen ~37 TWh
 - ~60% is used for electricity/steam and ~40% as feedstock
- **Natural gas supply:**
 - Supply secured through long-term supply contracts
 - Pricing predominantly based on spot market prices
- **Natural gas price hedging:**
 - BASF's natural gas price exposure in Europe is partly compensated by shareholding in Wintershall Dea
 - Remaining exposure is partly hedged through financial instruments
- **Natural gas price burden for European sites:**
 - Additional costs of ~€600 million for our European sites in the first nine months of 2021
 - At BASF Group level, this amount is partly mitigated by the above-mentioned measures

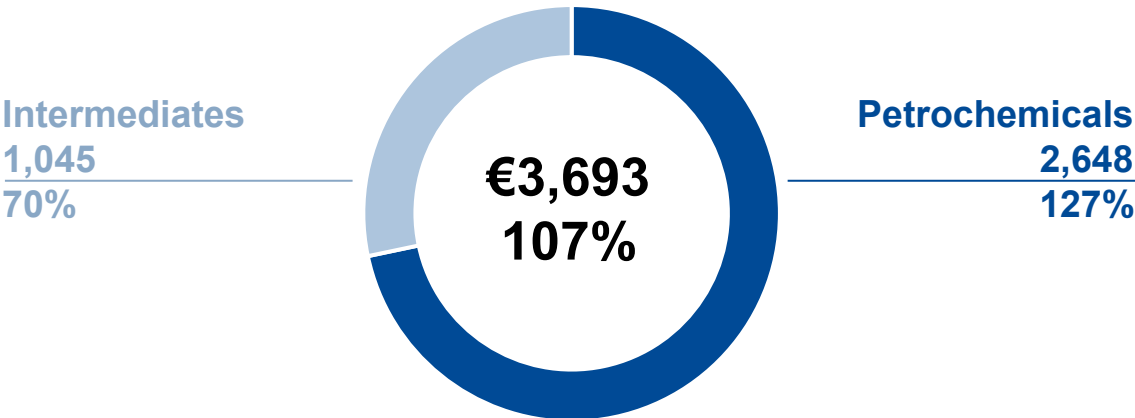


Cash flow development in Q3 2021 and Q1–Q3 2021

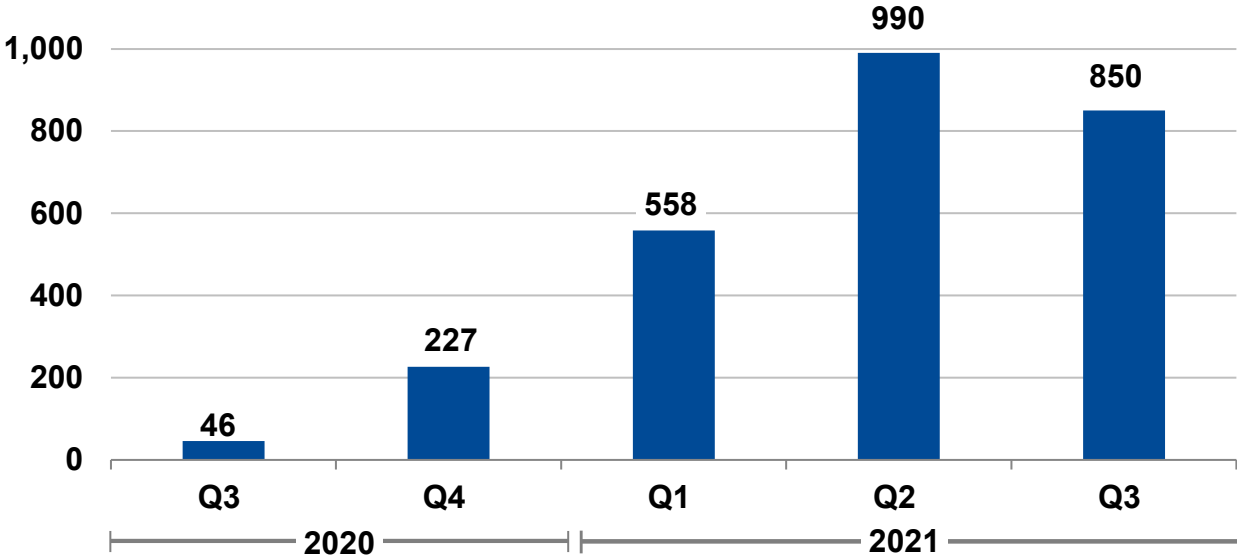
	Q3 2021	Q3 2020	Q1–Q3 2021	Q1–Q3 2020
	million €	million €	million €	million €
Cash flows from operating activities	1,896	2,100	3,908	3,312
Thereof Changes in net working capital	-44	767	-2,808	-1,043
Miscellaneous items	-220	-227	-564	739
Cash flows from investing activities	-1,818	1,851	-1,930	-674
Thereof Payments made for property, plant and equipment and intangible assets	-819	-736	-2,042	-2,031
Acquisitions / divestitures	-627	2,697	491	1,452
Cash flows from financing activities	-56	-3,889	-3,490	778
Thereof Changes in financial and similar liabilities	53	-3,886	-229	3,913
Dividends	-109	-3	-3,261	-3,139
Free cash flow	1,077	1,364	1,866	1,281

Chemicals

Sales Q3 2021 vs. Q3 2020
million €



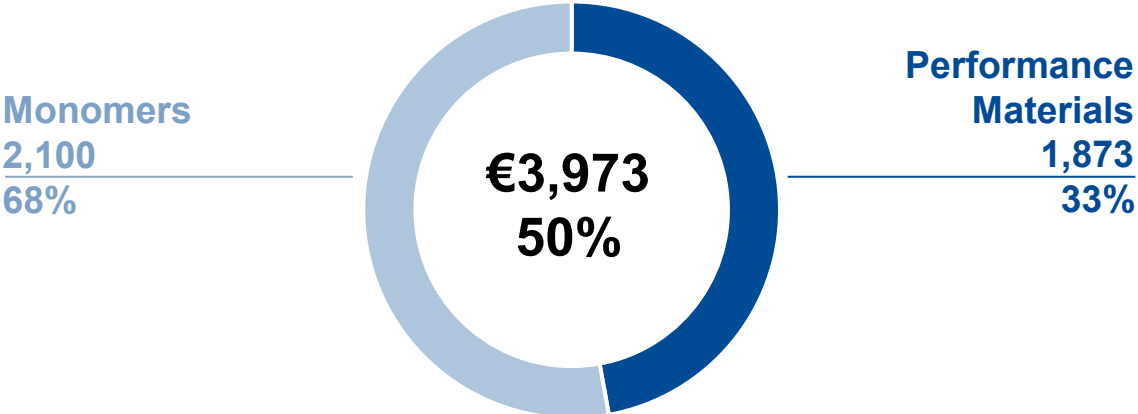
EBIT before special items
million €



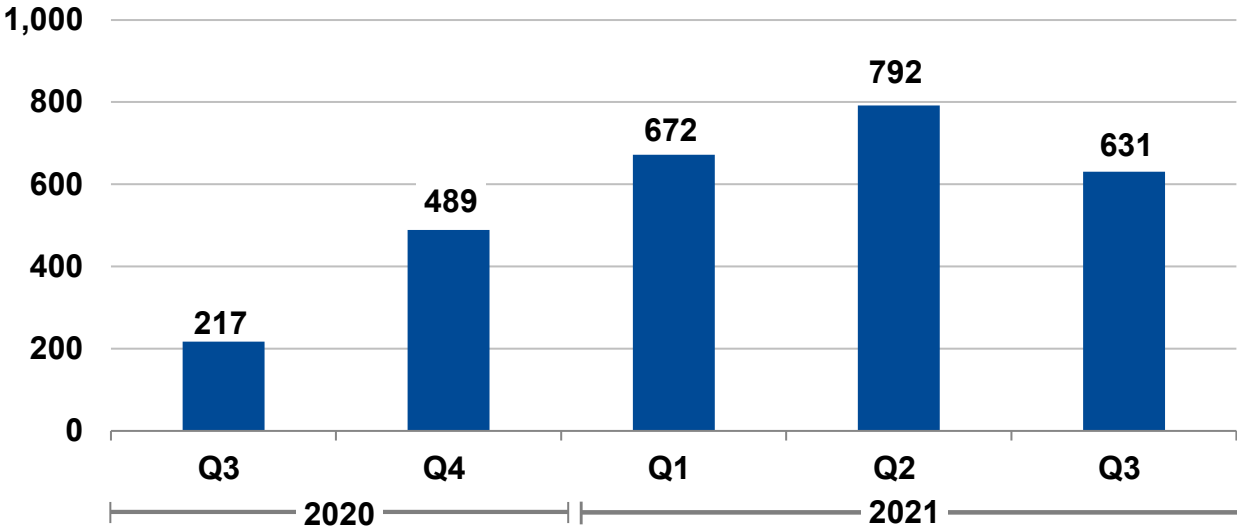
Sales development	Volumes	Prices	Portfolio	Currencies
Q3 2021 vs. Q3 2020	↑ 12%	↑ 95%	0%	0%

Materials

Sales Q3 2021 vs. Q3 2020
million €



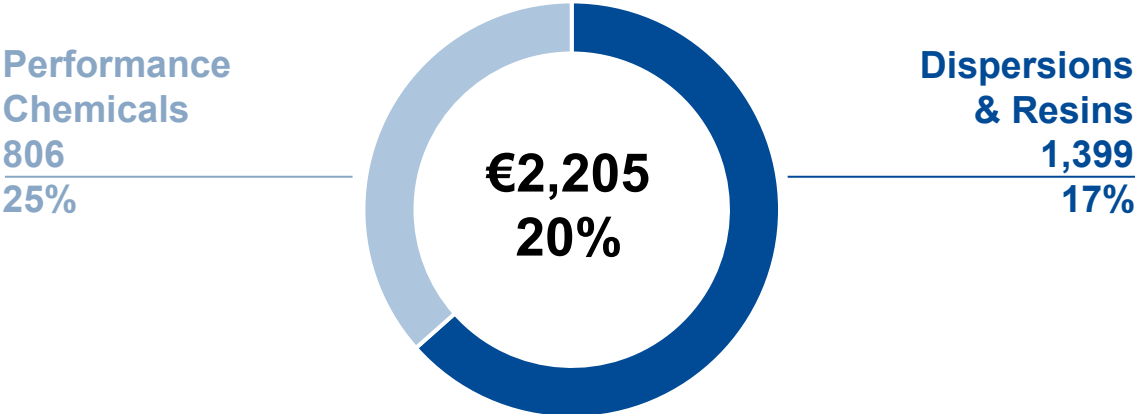
EBIT before special items
million €



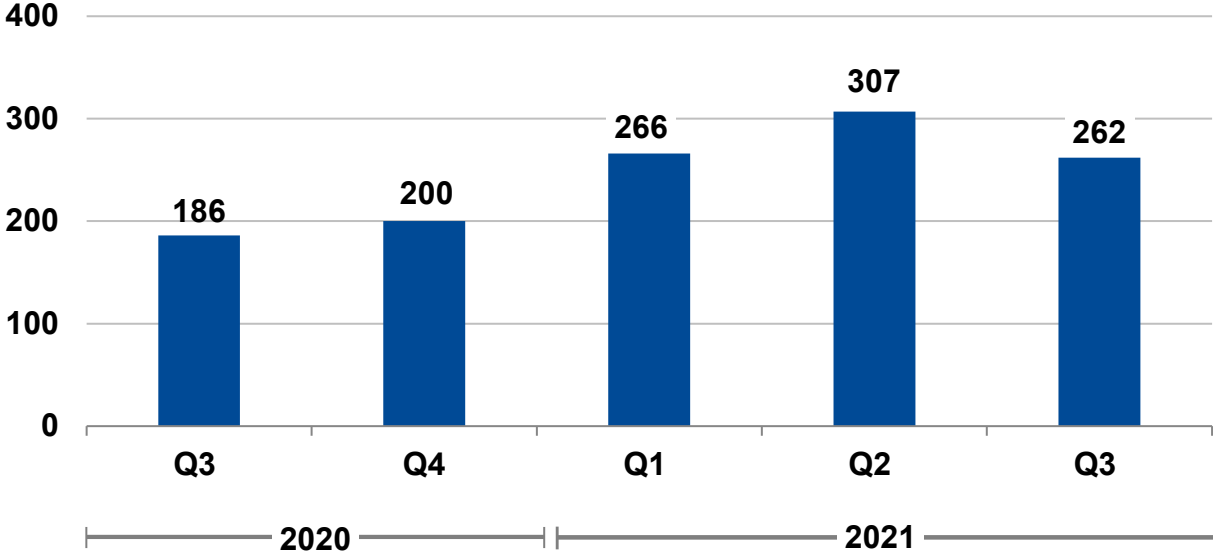
Sales development	Volumes	Prices	Portfolio	Currencies
Q3 2021 vs. Q3 2020	↑ 7%	↑ 41%	0%	↑ 2%

Industrial Solutions

Sales Q3 2021 vs. Q3 2020
million €



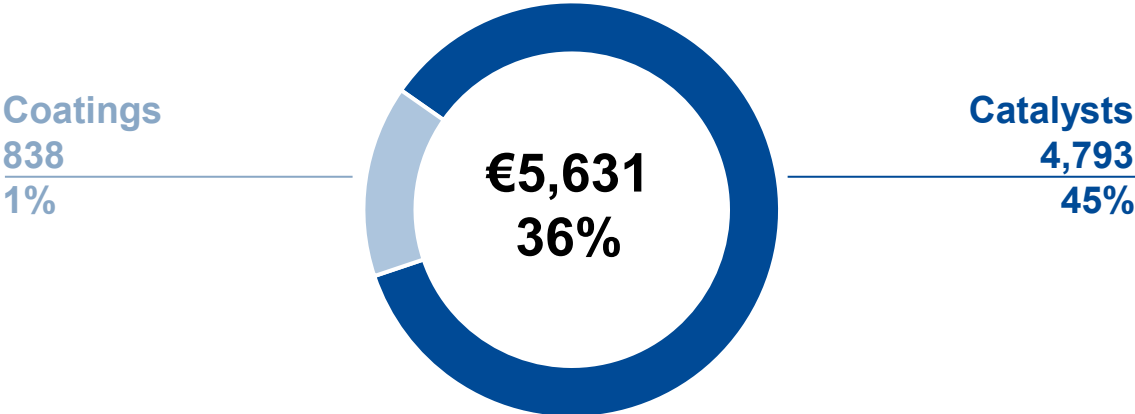
EBIT before special items
million €



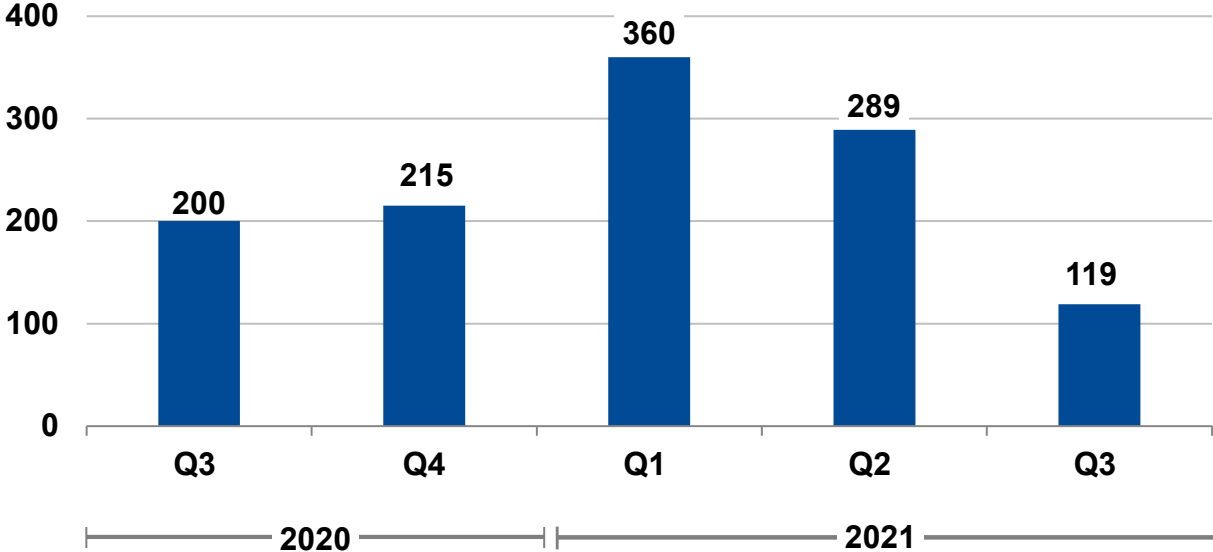
Sales development	Volumes	Prices	Portfolio	Currencies
Q3 2021 vs. Q3 2020	↑ 11%	↑ 18%	↓ -10%	↑ 1%

Surface Technologies

Sales Q3 2021 vs. Q3 2020
million €



EBIT before special items
million €



Sales development

Q3 2021 vs. Q3 2020

Volumes

↓ -3%

Prices

↑ 37%

Portfolio

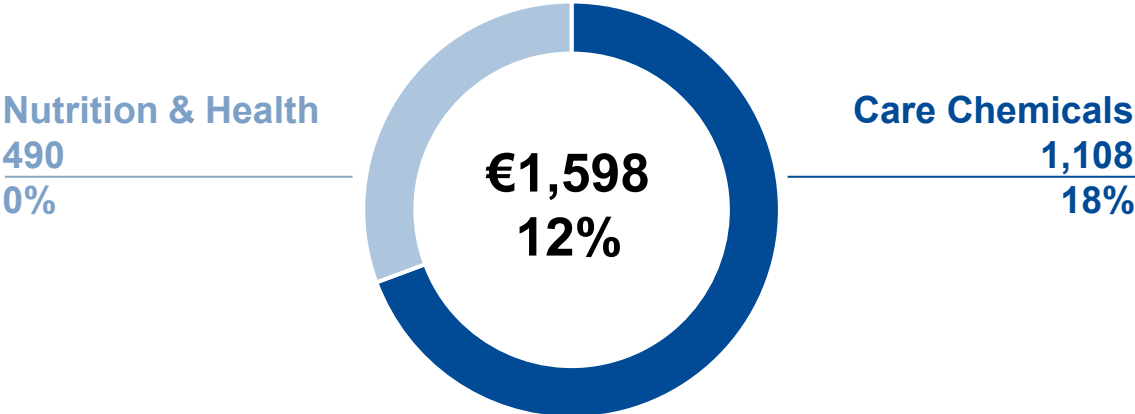
↑ 1%

Currencies

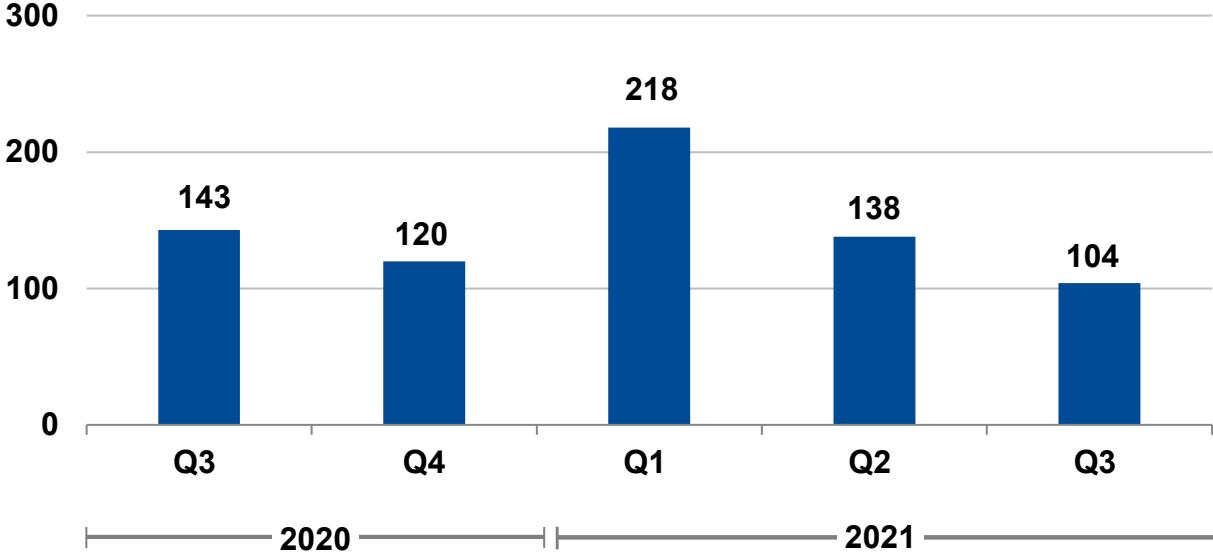
↑ 1%

Nutrition & Care

Sales Q3 2021 vs. Q3 2020
million €



EBIT before special items
million €

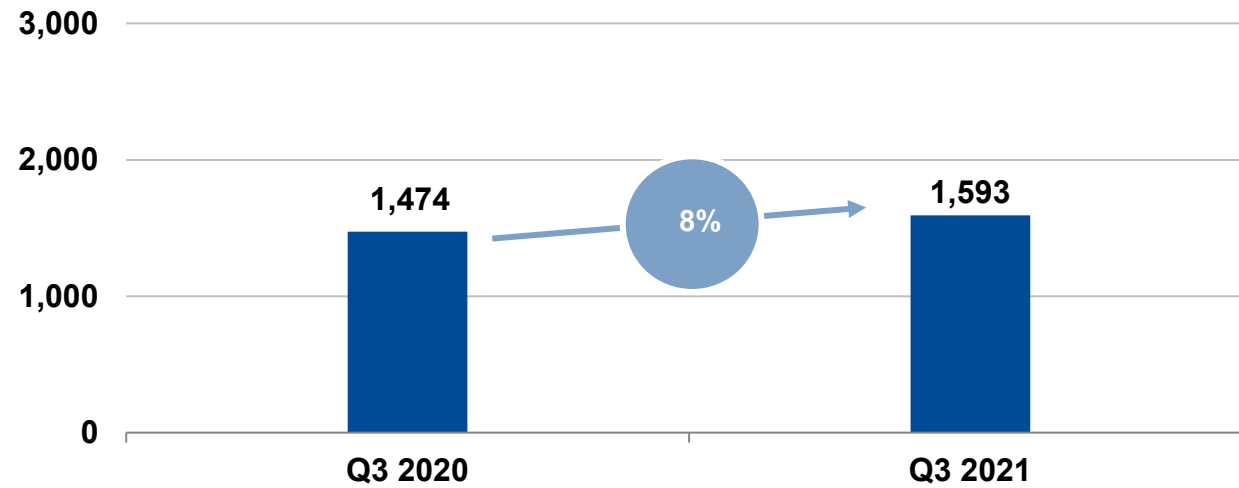


Sales development	Volumes	Prices	Portfolio	Currencies
Q3 2021 vs. Q3 2020	↑ 7%	↑ 7%	↓ -2%	0%

Agricultural Solutions

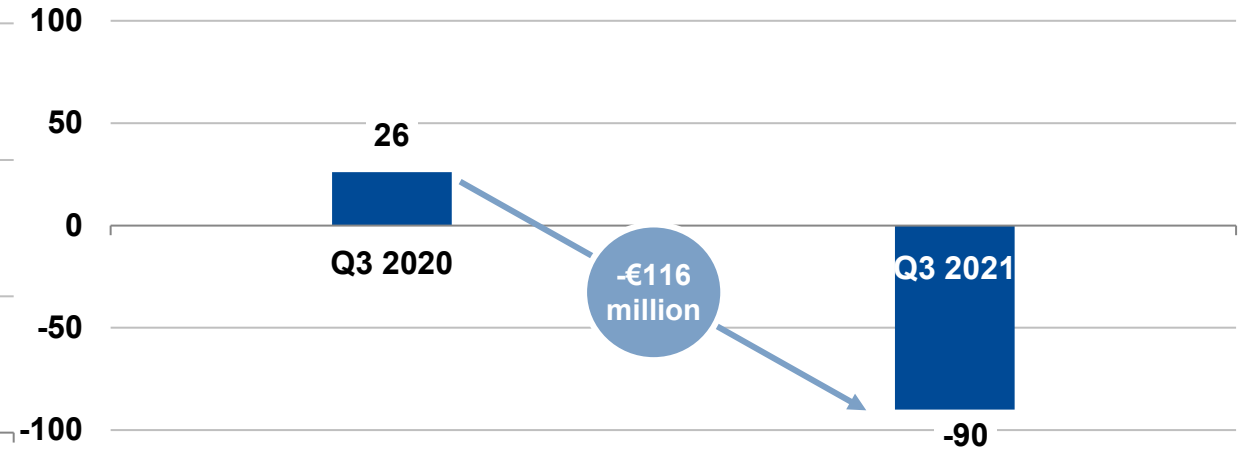
Sales Q3 2021 vs. Q3 2020

million €



EBIT before special items

million €



Sales development

Q3 2021 vs. Q3 2020

Volumes

↑ 7%

Prices

↑ 1%

Portfolio

0%

Currencies

0%



We create chemistry