BASF Capital Market Story
Dr. Lars Budde, Senior Manager Investor Relations
Kepler Cheuvreux Conference, Milan
March 27, 2019
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 123 to 130 of the BASF Report 2018. BASF does not assume any obligation to update the forward-looking statements contained in this presentation above and beyond the legal requirements.
Agenda

1  At a glance

2  Corporate Strategy

3  Q4 and Full-Year 2018 Reporting
BASF shares – an attractive investment

- **Strategy focused on participating in fast growing Asian markets**
  - driven by strong and expanding local presence

- **Industry-leading innovation platform**
  - covering a broad range of technologies and providing solutions for a multitude of customers

- **Unique Verbund concept**
  - competitive advantage based on integrated sites, operational excellence and best-in-class technologies

- **CO₂-neutral growth until 2030 targeted**
  - creating value to society and contributing to a sustainable development

- **Earnings growth, strong cash flow generation and clear return criteria**
  - based on operational excellence and financial strength

- **Long-term value creation with progressive dividend policy**
  - increase the dividend per share every year
Proven ability to achieve earnings growth above global chemical production of 3.7% per year

EBIT before special items* and EBITDA before special items*
billion €, 2012–2018

CAGR EBITDA before special items around +5%
Return on capital employed well above cost of capital

Return on capital employed
%
2012–2018

ROCE*: EBIT generated by the operating divisions as a percentage of the average cost of capital basis, excluding Oil & Gas.
Strong free cash flow development

Cash flows from operating activities and free cash flow*
billion €, 2012–2018

* Including Oil & Gas, as reported
Global trends provide opportunities for growth in the chemical industry

Demographic change: Rising number of seniors

- Population growth
  - 2015: 7 billion
  - 2050: 10 billion
  - +32%

Chemical growth 2018–2030 coming mainly from Asia Pacific

- Chemical growth
  - 2015: 6.5% of population
  - 2050: 25% of population
  - +130%

Environmental change: Strong reduction of GHG emissions necessary to achieve 2°C global warming target

- Climate change
  - 2018: 50 gigatons CO₂
  - 2050: -70%

Digitalization is surging
digital universe, zettabytes

- Digitalization
  - 2010: 50 zettabytes
  - 2020: 500 zettabytes
  - > +300%

Electromobility drives demand for battery materials
cathode active materials demand, kilotons

- Electromobility
  - 2018: 10 kilotons
  - 2025: 1,000 kilotons
  - +300%

Sources: UN, IEA, UBS foresight, BASF
China is the major growth driver for global chemical production

Real chemical production excluding pharmaceuticals
billion US$

<table>
<thead>
<tr>
<th>Region</th>
<th>2018: ~3,900</th>
<th>2030: ~5,700</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>41%</td>
<td>49%</td>
</tr>
<tr>
<td>Rest of Asia Pacific</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>North America</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>South America</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Europe</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Middle East, Africa</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

CAGR* +3.1%
Global GDP CAGR: +2.8%

Source: BASF  * Real chemical production excluding pharmaceuticals
Global market access through regional presence

<table>
<thead>
<tr>
<th>Region</th>
<th>Sales</th>
<th>EBIT</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>South America, Africa, Middle East</td>
<td>€5,340 million</td>
<td>€201 million</td>
<td>7,844</td>
</tr>
<tr>
<td>Europe</td>
<td>€26,546 million</td>
<td>€3,210 million</td>
<td>75,188</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>€14,646 million</td>
<td>€1,820 million</td>
<td>19,303</td>
</tr>
<tr>
<td>North America</td>
<td>€16,143 million</td>
<td>€802 million</td>
<td>20,069</td>
</tr>
</tbody>
</table>

Sales 2018 by location of customer; EBIT 2018 by location of company.
New segment structure strengthens performance- and market-orientation and provides more transparency
Each new segment has a clear and compelling path forward

<table>
<thead>
<tr>
<th></th>
<th>Chemicals</th>
<th>Materials</th>
<th>Industrial Solutions</th>
<th>Surface Technologies*</th>
<th>Nutrition &amp; Care</th>
<th>Agricultural Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of sales 2018*</td>
<td>19%</td>
<td>21%</td>
<td>15%</td>
<td>22%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>EBIT bsi 2018*</td>
<td>€1.6 billion</td>
<td>€2.4 billion</td>
<td>€0.7 billion</td>
<td>€0.7 billion</td>
<td>€0.7 billion</td>
<td>€0.7 billion</td>
</tr>
<tr>
<td>Core theme</td>
<td>Verbund</td>
<td>Advanced materials</td>
<td>Additives platform</td>
<td>Surface modification platform</td>
<td>Consumer ingredients</td>
<td>Integrated offering of seeds, crop protection, digital</td>
</tr>
<tr>
<td>Innovation focus</td>
<td>Improved or new processes</td>
<td>Applications, biomaterials</td>
<td>Formulations</td>
<td>Battery materials, surface effects</td>
<td>Biotechnology, formulations</td>
<td>Crop protection, seeds, digital farming</td>
</tr>
<tr>
<td>Capex relevance</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
</tr>
<tr>
<td>M&amp;A relevance</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
</tr>
<tr>
<td>Sustainability</td>
<td>ChemCycling</td>
<td>Bio-based materials</td>
<td>More from less</td>
<td>Low-emission mobility</td>
<td>Bio-based and natural, traceability</td>
<td>Better with less</td>
</tr>
</tbody>
</table>

* Until signing of a transaction agreement, Construction Chemicals will be reported under Surface Technologies; Other (sales 2018: €2.8 billion, EBIT bsi 2018: €(462) million) not depicted on this slide.
Focusing our strengths to drive customer success

Innovation – with impact

Sustainability – live our purpose

Operations – be the leader

Digitalization – leverage across the company

Portfolio – businesses with customer relevance

People – drive high performance
Our ambitious financial and non-financial targets

**Financial targets**

- **Grow sales volumes faster than global chemical production** every year
- **Increase EBITDA before special items** by 3% to 5% per year
- **Achieve a return on capital employed (ROCE)** considerably above the cost of capital percentage every year
- **Increase the dividend per share** every year based on a strong free cash flow

**Nonfinancial targets**

- **Grow CO₂-neutrally** until 2030
- **Achieve €22 billion in Accelerator sales** by 2025
- **Cover 90% of our relevant spend** with sustainability evaluations by 2025, and have 80% of our suppliers improve their sustainability performance upon re-evaluation
- **More than 80% of our employees** feel that at BASF, they can thrive and perform at their best

**Existing nonfinancial targets**

- **Reduce the worldwide lost-time injury rate** per 200,000 working hours to ≤0.1 by 2025
- **Reduce worldwide process safety incidents** per 200,000 working hours to ≤0.1 by 2025
- **Introduce sustainable water management** at all production sites in water stress areas and at all Verbund sites by 2030
- **Increase the proportion of women in leadership positions** with disciplinary responsibility to 22–24% by 2021

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

** Accelerator products are products that make a substantial sustainability contribution in the value chain.

*** We understand relevant spend as procurement volumes with relevant suppliers.
Outlook 2019 for BASF Group*

- Slight sales growth, mainly from higher sales volumes and portfolio effects
- EBIT before special items slightly above prior-year level
- ROCE slightly higher than cost of capital percentage, but slightly below the 2018 level

Underlying assumptions for outlook 2019

<table>
<thead>
<tr>
<th>Economic environment</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>+2.8%</td>
<td>+3.2%</td>
</tr>
<tr>
<td>Growth in industrial production</td>
<td>+2.7%</td>
<td>+3.2%</td>
</tr>
<tr>
<td>Growth in chemical production</td>
<td>+2.7%</td>
<td>+2.7%</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>US$1.15 per euro</td>
<td>US$1.18 per euro</td>
</tr>
<tr>
<td>Oil price (Brent)</td>
<td>US$70 per barrel</td>
<td>US$71 per barrel</td>
</tr>
</tbody>
</table>

* For sales, “slight” represents a change of 1–5%, while “considerable” applies to changes of 6% and higher. “At prior-year level” indicates no change (+/-0 %).
For earnings, “slight” means a change of 1–10%, while “considerable” is used for changes of 11% and higher. “At prior-year level” indicates no change (+/-0 %).
At a cost of capital percentage of 10% for 2018 and 2019, we define a change in ROCE of 0.1 to 1.0 percentage points as “slight,” a change of more than 1.0 percentage points as “considerable” and no change (+/-0 percentage points) as “at prior-year level.”
### Outlook 2019 by segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sales 2018</th>
<th>Forecast 2019*</th>
<th>EBIT before special items 2018</th>
<th>Forecast 2019*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemicals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petrochemicals, Intermediates</td>
<td>11,694</td>
<td>at prior-year level</td>
<td>1,587</td>
<td>slight increase</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Materials, Monomers</td>
<td>13,270</td>
<td>slight increase</td>
<td>2,400</td>
<td>considerable decline</td>
</tr>
<tr>
<td><strong>Industrial Solutions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispersions &amp; Pigments, Performance Chemicals</td>
<td>9,120</td>
<td>slight decline</td>
<td>668</td>
<td>considerable increase</td>
</tr>
<tr>
<td><strong>Surface Technologies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catalysts, Coatings, Construction Chemicals**</td>
<td>13,655</td>
<td>slight increase</td>
<td>690</td>
<td>considerable increase</td>
</tr>
<tr>
<td><strong>Nutrition &amp; Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care Chemicals, Nutrition &amp; Health</td>
<td>5,940</td>
<td>considerable increase</td>
<td>736</td>
<td>considerable increase</td>
</tr>
<tr>
<td><strong>Agricultural Solutions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,156</td>
<td>considerable increase</td>
<td>734</td>
<td>considerable increase</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,840</td>
<td>considerable increase</td>
<td>(462)</td>
<td>considerable decline</td>
</tr>
<tr>
<td><strong>BASF Group</strong></td>
<td>62,675</td>
<td>slight increase</td>
<td>6,353</td>
<td>slight increase</td>
</tr>
</tbody>
</table>

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* For earnings, “slight” means a change of 1–10%, while “considerable” is used for changes of 11% and higher. “At prior-year level” indicates no change (+/−0 %).
** Until signing of a transaction agreement, Construction Chemicals will be reported under Surface Technologies.
Priorities 2019

- Implementation of the corporate strategy and transformation of BASF into a more customer-focused and entrepreneurial company

- Strong commitment to innovation and sustainability with even stronger focus of R&D resources on growth businesses and customers

- Continued portfolio pruning towards higher value and clearer focus; closing of the announced transactions and integration of acquired businesses

- Focus on cost control and operational excellence by implementing BASF’s excellence program targeting an annual EBITDA contribution of €2 billion from 2021 onwards
Agenda

1  At a glance

2  Corporate Strategy
   ▶ Sharpen our portfolio
   ▶ Transforming into a more agile and customer-focused organization
   ▶ The Verbund – strengthening our portfolio
   ▶ Set the tone with CO₂-neutral growth
   ▶ Disciplined capital allocation and focus in value creation

3  Q4 and Full-Year 2018 Reporting
We have refocused our portfolio towards innovative growth businesses*

**Acquisitions**

- Functional crop care
- Personal care and food ingredients
- Omega-3 fatty acids
- Enzymes
- Battery materials
- Specialty plastics
- Selected assets in Oil & Gas
- Refinish coatings
- Surface treatment
- Seeds and crop protection

~€7.7 billion sales in emerging and innovation-driven businesses

**BASF core business**

Selected transactions 2010–today

**Divestitures**

- Styrenics
- Fertilizers
- Selected assets in Oil & Gas
- Natural gas trading and storage
- Custom synthesis business
- Textile chemicals
- Polyolefin catalysts
- Industrial coatings
- Leather chemicals
- Water and paper chemicals

~€21.9 billion sales in businesses with decreased differentiation potential

* Selected, closed transactions 2010–today
Portfolio transformation towards higher value

Portfolio management principles

- Continuous active portfolio management
- Annual review of strategic business units following “best-owner” principle
- Portfolio pruning of businesses with limited differentiation potential
- Selective acquisitions with transformative character for distinct growth businesses or segments

“Best-owner”:
- Asset and technology fit
- Benefit from or contribution to Verbund
### Active portfolio management – recently completed and announced transactions

#### Acquisitions

<table>
<thead>
<tr>
<th>Agricultural solutions businesses and assets from Bayer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 2017: ~€2.2 billion</td>
</tr>
<tr>
<td>Closing took place in August 2018</td>
</tr>
<tr>
<td>Integration well on track</td>
</tr>
</tbody>
</table>

**BASF to acquire Solvay’s integrated polyamide business**

- Sales 2016: ~€1.3 billion*
- On January 18, 2019, the EU Commission granted conditional clearance for BASF to acquire Solvay’s polyamide business
- Closing expected in H2 2019 after all remaining conditions have been fulfilled, including the sale of the remedy package to a third party

#### Divestitures and other strategic options

<table>
<thead>
<tr>
<th>Water and paper chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 2017: ~€0.8 billion</td>
</tr>
<tr>
<td>Closing took place on January 31, 2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oil &amp; Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 2018: ~€4.1 billion</td>
</tr>
<tr>
<td>Closing expected in H1 2019, subject to regulatory approvals</td>
</tr>
<tr>
<td>IPO to take place in H2 2020 at the earliest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 2018: ~€2.5 billion</td>
</tr>
<tr>
<td>Review of strategic options announced end of October 2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pigments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales 2018: ~€1 billion</td>
</tr>
<tr>
<td>Divestment process to be started</td>
</tr>
</tbody>
</table>

* Before being adjusted to reflect the antitrust-related changes to the scope
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- Sharpen our portfolio
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- The Verbund – strengthening our portfolio
- Set the tone with CO$_2$-neutral growth
- Disciplined capital allocation and focus in value creation

3 | Q4 and Full-Year 2018 Reporting
Transforming into a more agile and customer-focused organization

Guiding principles

- Empowerment
- Differentiation
- Simplification

Action fields

- Embedding to bring services closer to customers
- Functions and headquarters with streamlined back-end organization
- Regions with sharpened roles to increase customer focus
- Process landscape simplified
- People working in an entrepreneurial performance culture
Update on strategy implementation
We empower our businesses to optimize and differentiate according to customer needs

- Empowerment
- Differentiation
- Simplification

Example: Embedding of business-critical services

Current structure

OD1  OD2  ...

Functional services

Governance

New structure

OD1  OD2  ...

Embedded services

(Standard) Services

Governance

~70% of around 20,000 employees were already moved closer to customers
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   ▶ The Verbund – strengthening our portfolio
   ▶ Set the tone with CO\textsubscript{2}-neutral growth
   ▶ Disciplined capital allocation and focus in value creation

3  Q4 and Full-Year 2018 Reporting
Our portfolio is strengthened by multiple Verbund effects

- Confirmed annual cost savings of more than €1 billion through integrated production
- Ensure competitive supply of key products to all segments
- Harvest the advantages offered by digitalization across BASF
- Create customer relevance through size and broad portfolio
- Leverage technological advantages and innovation across all segments
Technological Verbund: Leveraging our expertise in catalysis across the company

90% of BASF’s production depends on the use of catalysts

BASF has a unique catalyst technology expertise:

- Strong catalysis R&D platform
- Leader in catalyst production
- Business with automotive, chemical and refinery catalysts
- Application of many different process catalysts in BASF operations
Customer Verbund: BASF’s sales to the automotive industry clearly outpaced the growth of the automotive industry

BASF sales to the automotive industry vs. global vehicle production indexed

CAGR: 6%
BASF sales* to the automotive industry

CAGR: 2%
Global vehicle production

With 2018 sales of €11.6 billion to the automotive industry, BASF is the #1 chemical supplier

* Excluding precious metals, coatings refinish business; CAGR shown for 2012–2018
Digital Verbund: BASF’s vast amount of data provides the basis for strong future growth

- Digital Verbund connects backend systems and provides structured data sources to digital projects
- Benefits:
  - Pool of data and artificial intelligence allow better and faster product development
  - Offering data-driven services to customers
  - Fostering data-driven business models
  - Optimizing chemical processes by machine learning
  - Data-based predictive maintenance

Pool of data from:
- Operations
- R&D
- Marketing & Sales
- Procurement
- Supply chain
- Finance
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3 | Q4 and Full-Year 2018 Reporting
CO₂-neutral growth until 2030: Creating value to society and contributing to a sustainable development

Absolute greenhouse gas (GHG) emissions indexed (1990 = 100)

- Since 1990, we have doubled our production volumes and nevertheless cut our greenhouse gas emissions in half
- BASF uses carbon raw materials responsibly: 75% of carbon converted to products, 25% consumed for process energy and converted to CO₂
- 22 million tons of CO₂ emissions by BASF worldwide in 2018 compared to 10–30 million tons per year for one coal-fired power plant
- Carbon intensity to be reduced by 30%
- We support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
BASF’s Carbon Management – our focus today

Potential CO$_2$ reduction

- Further improve process and energy efficiency
- Shift power supply towards renewable energies
- Develop CO$_2$-reduced breakthrough technologies
- Costs and risks

powered by BASF’s unique catalyst platform

BASF is committed to contributing to the Paris Climate Agreement
€22 billion sales with Accelerator products by 2025 through innovation

Percentage of sales 2018

- 27.7% Accelerators
  - >12,000 solutions for enhanced quality of life
  - strong growth in their markets
  - on average margins ~6 percentage points above the rest of assessed portfolio

- Goal: €22 billion of sales with Accelerator products by 2025 (2018: €15 billion)

- Stronger integration in R&D pipeline, business strategies and M&A projects

- As of 2018 we will stop selling all Challenged products within maximum five years after classification

>60,000 product applications analyzed by 2018 (€56.2 billion in sales, 96.5% of relevant portfolio)

- 5.3% Specific sustainability issues which are being actively addressed

- 0.1% Significant sustainability concern identified and action plan developed

- 66.9% Meets basic sustainability standards on the market

- Substantial sustainability contribution in the value chain
Examples of BASF Accelerator products

**Formic acid**
Runway and road de-icing

- Better biodegradability than conventional products
- Less corrosive than conventional products, reduced impact on the surrounding flora, not hazardous to animals
- Reduced water treatment demand and costs
- In Europe, all big airports are now using salts of formic acid

**Cetiol® Ultimate**
Emollient for Personal Care

- 100% renewable-based, readily biodegradable
- Replacement of volatile silicones and substitution of cyclomethicone possible
- Gives more flexibility in the development of natural cosmetic concepts for improved skin feel

**Synative® ES TMP**
Marine lubricants

- Superior lubrication performance, excellent stability
- 80% renewable-based, readily biodegradable
- One of few product lines for environmentally acceptable marine lubricants (e.g., for EU Ecolabel listing)
- Significant growth potential, depending on future regulation
BASF’s Accelerators contribute to a wide range of the UN Sustainable Development Goals

Sales shares of contributing Accelerators (%)

- Cost savings downstream: 27.7%
- Biodiversity and renewables: 4.3%
- Climate change and energy: 6.8%
- Emission reduction: 6.6%
- Resource efficiency: 26.9%
- Water: 6.8%
- Health and safety: 6.6%
- Hunger and poverty: 0.1%

(including double nominations)

Primarily addressed SDGs

- 2: Zero Hunger
- 3: Good Health and Well-Being
- 6: Clean Water and Sanitation
- 9: Industry Innovation and Infrastructure
- 11: Sustainable Cities and Communities
- 12: Responsible Consumption and Production
- 13: Climate Action
- 15: Life on Land
- 7: Affordable and Clean Energy
- 8: Decent Work and Economic Growth

BASF’s Accelerators contribute to a wide range of the UN Sustainable Development Goals.
BASF in sustainability ratings and rankings*

CDP
As one of the world’s leading companies in reporting on climate protection and in sustainable water management, BASF has been included in the “CDP Climate A” list (2017: “A-”) and received an “A-” rating in the water category.

MSCI ESG Research
BASF achieved an “AA” rating for the sixth time in a row and ranks second in “Diversified Chemicals.”

Sustainalytics
BASF is “Outperformer” in the overall ESG rating with particular strong rating in governance.

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

* Assessments were carried out in 2018 referring to 2017 figures
Fast-paced buildup of global cathode active materials footprint

2012
- First CAM production facility in Elyria, Ohio

2015
- Foundation of BASF Toda Battery Materials (BTBM), Japan
- Tripled capacity at BTBM in Onoda, Japan

2017
- Second CAM production facility in Battle Creek, Michigan; merged with Elyria, Ohio into BASF Toda Americas (BTA)

2018
- First production volumes at Harjavalta, Finland
- Born in Europe planned greenfield production
- First CAM production facility in Elyria, Ohio
- Second CAM production facility in Battle Creek, Michigan; merged with Elyria, Ohio into BASF Toda Americas (BTA)
- Chemistry of cathode active materials is key to address electromobility challenges

Electromobility drives battery materials growth

Market projections for 2025:
- 10-15 million electric vehicles built per year
- 700-1,000 kt of CAM in electromobility
- €25-30 billion CAM market size
BASF drives key cathode chemistries to improve energy density, lifetime and cost

- **Commercialized**
  - Nickel-rich
  - NCA
  - NCM 622
  - NCM 523

- **Upcoming**
  - Manganese-rich ~2022
    - Advanced NCA
    - NCM 811
  - Manganese-rich NCM

- **Beyond LIB >2025**
  - Materials for lithium-anode and solid-state batteries
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   - The Verbund – strengthening our portfolio
   - Set the tone with CO2-neutral growth
   - Disciplined capital allocation and focus in value creation

3 | Q4 and Full-Year 2018 Reporting
Guidance on the use of cash

Use of cash of BASF Group 2005-2018 (billion €)

1. **Organic growth**
   - We strive to organically grow above global chemical production via innovation and capital expenditures.

2. **Progressive dividend policy**
   - We aim to increase our dividend per share every year.

3. **Portfolio upgrading**
   - We strive to enhance BASF’s portfolio through selective acquisitions with transformative character for distinct growth businesses or segments, and further focus the portfolio through continued pruning measures.

4. **Share buybacks**
   - We will also consider share buybacks to return cash to our shareholders, thus maintaining an efficient capital structure.
Investments in organic growth
Investments of ~€3.8 billion planned for 2019

Capex budget 2019–2023 by segment

- Agricultural Solutions: 6%
- Nutrition & Care: 9%
- Surface Technologies: 11%
- Other (Infrastructure, R&D): 18%
- Chemicals: 33%
- Materials: 15%
- Industrial Solutions: 8%

€21.3 billion

Capex budget 2019–2023 by region

- Europe: 43%
- North America: 24%
- Asia Pacific: 27%
- South America, Africa, Middle-East: 5%
- Other*: 1%

* Alternative sites currently being investigated

€21.3 billion
Announced investments in organic growth in Asia

BASF and SINOPEC signed MoU to expand Joint Venture in Nanjing, China

- JV BASF-YPC to have a 50% stake in an additional steam cracker; SINOPEC to invest the other 50%
- Steam cracker capacity of 1 million metric tons of ethylene p.a. to support further downstream portfolio development

BASF signed Framework Agreement to establish Verbund site in Zhanjiang, China

- Total investment of up to $10 billion, implementation in phases until 2030
- Wholly-owned steam cracker with a capacity of 1 million metric tons of ethylene p.a. and several plants for consumer-oriented products
- Circular economy concepts to be incorporated into the new Verbund site

BASF to partner with Adani to evaluate investments in acrylics value chain in Mundra, India

- With a joint investment totaling €2 billion, project would be BASF’s largest investment in India
- First CO₂-neutral site to be 100% powered by renewable energy
BASF’s R&D is highly competitive, ensures long-term growth and generates a net benefit to earnings every year

Expected annual R&D expenditures

- 20% Corporate research
- 39% Agricultural Solutions
- 6% Chemicals
- 9% Materials
- 9% Industrial Solutions
- 10% Surface Technologies
- 7% Nutrition & Care

~€2.3 billion

Measures to boost innovation power

- Capitalize on innovation mindset
- Focus R&D resources on growth businesses
- Increase customer centricity
  - Stronger alignment of customer needs and R&D projects
  - Establish rapid prototyping
  - Move R&D closer to businesses
- Fully leverage artificial intelligence
- Cross-divisional corporate research strengthens existing and develops new key technologies
Attractive shareholder return

Dividend per share

€

Dividend policy
- Increase the dividend per share every year

Key facts
- Dividend proposal of €3.20 per share, an increase of 10 cents
- Dividend yield of 5.3% based on the share price at year end 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend per share (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>Proposal 3.20</td>
</tr>
<tr>
<td>2017</td>
<td>3.10</td>
</tr>
<tr>
<td>2016</td>
<td>3.00</td>
</tr>
<tr>
<td>2015</td>
<td>2.90</td>
</tr>
<tr>
<td>2014</td>
<td>2.80</td>
</tr>
<tr>
<td>2013</td>
<td>2.70</td>
</tr>
<tr>
<td>2012</td>
<td>2.60</td>
</tr>
<tr>
<td>2011</td>
<td>2.50</td>
</tr>
<tr>
<td>2010</td>
<td>2.20</td>
</tr>
<tr>
<td>2009</td>
<td>1.70</td>
</tr>
</tbody>
</table>

Yield* 3.9% 3.7% 4.6% 3.7% 3.5% 4.0% 4.1% 3.4% 3.4% 5.3%

* Dividend yield based on share price at year end
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
Excellence program 2019–2021

Key facts

- **Operational excellence** will focus on production, logistics and planning

- In **digitalization and automation**, smart supply chains and smart manufacturing are major contributors

- **Organizational development** targets leaner structures in the areas of services, R&D and governance
  - Significant parts of **functional services** will be embedded in businesses, closer to our customers
  - **Simplification** of process landscape

- Estimated **one-time costs of €0.8 billion** over the 3-year period. This includes **special charges in a mid-triple-digit million-euro-range**.
Agenda

1 | At a glance
2 | Corporate Strategy
3 | Q4 and Full-Year 2018 Reporting
BASF Group Q4 and full year 2018
Sales increased slightly, earnings declined mainly due to lower contributions from Chemicals

<table>
<thead>
<tr>
<th>Financial figures*</th>
<th>Q4 2018</th>
<th>Change Q4 2017</th>
<th>FY 2018</th>
<th>Change FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€</td>
<td>%</td>
<td>€</td>
<td>%</td>
</tr>
<tr>
<td>Sales</td>
<td>15,586 million</td>
<td>2</td>
<td>62,675 million</td>
<td>2</td>
</tr>
<tr>
<td>EBITDA before special items</td>
<td>1,496 million</td>
<td>(35)</td>
<td>9,481 million</td>
<td>(12)</td>
</tr>
<tr>
<td>EBITDA</td>
<td>1,336 million</td>
<td>(41)</td>
<td>9,166 million</td>
<td>(15)</td>
</tr>
<tr>
<td>EBIT before special items</td>
<td>630 million</td>
<td>(59)</td>
<td>6,353 million</td>
<td>(17)</td>
</tr>
<tr>
<td>EBIT</td>
<td>469 million</td>
<td>(67)</td>
<td>6,033 million</td>
<td>(21)</td>
</tr>
<tr>
<td>Net income</td>
<td>348 million</td>
<td>(77)</td>
<td>4,707 million</td>
<td>(23)</td>
</tr>
<tr>
<td>Reported EPS</td>
<td>0.37</td>
<td>(78)</td>
<td>5.12</td>
<td>(23)</td>
</tr>
<tr>
<td>Adjusted EPS</td>
<td>0.66</td>
<td>(49)</td>
<td>5.87</td>
<td>(9)</td>
</tr>
<tr>
<td>Cash flows from operating activities</td>
<td>1,554 million</td>
<td>31</td>
<td>7,939 million</td>
<td>(10)</td>
</tr>
</tbody>
</table>

Sales development

<table>
<thead>
<tr>
<th>Sales development</th>
<th>Volumes</th>
<th>Prices</th>
<th>Portfolio</th>
<th>Currencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2018 vs. Q4 2017</td>
<td>↓ (3)%</td>
<td>↑ 2%</td>
<td>↑ 3%</td>
<td>0%</td>
</tr>
<tr>
<td>FY 2018 vs. FY 2017</td>
<td>↑ 1%</td>
<td>↑ 4%</td>
<td>↑ 1%</td>
<td>↓ (4)%</td>
</tr>
</tbody>
</table>

* Restated figures due to reporting of oil and gas business as discontinued operation.
### Cash flow development in 2018

<table>
<thead>
<tr>
<th>Cash flow development</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>million €</td>
<td>million €</td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thereof Changes in net working capital</td>
<td>(530)</td>
<td>(1,167)</td>
</tr>
<tr>
<td>Miscellaneous items</td>
<td>12</td>
<td>(339)</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thereof Payments made for tangible / intangible assets</td>
<td>(3,894)</td>
<td>(3,996)</td>
</tr>
<tr>
<td>Acquisitions / divestitures</td>
<td>(7,255)</td>
<td>27</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thereof Changes in financial liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends</td>
<td>(3,021)</td>
<td>(2,873)</td>
</tr>
<tr>
<td><strong>Free cash flow</strong></td>
<td>4,045</td>
<td>4,789</td>
</tr>
</tbody>
</table>
Balance sheet remains strong

Balance sheet 2018 vs. 2017
billion €

- Total assets increased by €7.8 billion, mainly as a result of the acquisition of agricultural solutions businesses and assets from Bayer.
- Current assets increased following the signing of the agreement to merge Wintershall and DEA and the establishment of a disposal group.
- Net debt increased by €6.7 billion to €18.2 billion due to the purchase price payment to Bayer.
- Equity ratio at 41.7% as of Dec 31, 2018.
**Chemicals**

Sales and earnings declined mainly due to lower margins and lower volumes

---

**Sales Q4 2018 vs. Q4 2017**

- **Intermediates**: 760 million € (+2%)
- **Monomers**: 1,365 million € (24%)

**Sales development**

- Q4 2018 vs. Q4 2017:
  - Volumes: ↓(8)%
  - Prices: ↓(2)%
- FY 2018 vs. FY 2017:
  - Volumes: ↓(1)%
  - Prices: ↑4%

**EBIT before special items**

- Q4 2018: 327 million €
- Q4 2017: 1,053 million € (-69%)

**FY 2018**

- Sales: 3,386 million € (+327 million €)
- EBIT before special items: 4,233 million € (20%)

**FY 2017**

- Sales: 3,774 million € (+327 million €)
- EBIT before special items: 4,233 million € (20%)

---

**Portfolios**

- Portfolio: 0%

**Currencies**

- Currencies: ↑1%
### Performance Products
Higher prices and lower fixed costs led to significantly higher earnings in Q4 2018

#### Sales Q4 2018 vs. Q4 2017 (million €)
- **Performance Chemicals:** 987 (+7%)
- **Nutrition & Health:** 449 (+1%)
- **Dispersions & Pigments:** 1,239 (+1%)
- **Care Chemicals:** 1,208 (3%)

#### EBIT before special items (million €)
- **Q4 2018:**
  - **Performance Chemicals:** 137 (+23%)
  - **Nutrition & Health:** 111
- **FY 2018:**
  - **Performance Chemicals:** 1,376
  - **Nutrition & Health:** 1,416 (3%)

<table>
<thead>
<tr>
<th>Sales development</th>
<th>Volumes</th>
<th>Prices</th>
<th>Portfolio</th>
<th>Currencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2018 vs. Q4 2017</td>
<td>↓ (4%)</td>
<td>↑ 5%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>FY 2018 vs. FY 2017</td>
<td>↓ (2%)</td>
<td>↑ 4%</td>
<td>↓ (1)%</td>
<td>↓ (3%)</td>
</tr>
</tbody>
</table>
Functional Materials & Solutions
Slight sales and earnings growth in the fourth quarter despite challenging market conditions

Sales Q4 2018 vs. Q4 2017
million €

- Performance Materials: 1,805 (6)%
- Coatings: 999 (2)%
- Construction Chemicals: 603 +3%
- Catalysts: 2,111 +18%

Sales Q4 2018 vs. Q4 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Q4 2018</th>
<th>Q4 2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Materials</td>
<td>1,805</td>
<td>1,805</td>
<td>0%</td>
</tr>
<tr>
<td>Coatings</td>
<td>999</td>
<td>999</td>
<td>(2)%</td>
</tr>
<tr>
<td>Construction Chemicals</td>
<td>603</td>
<td>603</td>
<td>+3%</td>
</tr>
<tr>
<td>Catalysts</td>
<td>2,111</td>
<td>1,805</td>
<td>+18%</td>
</tr>
</tbody>
</table>

EBIT before special items
million €

- Q4 2018: 289 +8%
- Q4 2017: 267

<table>
<thead>
<tr>
<th>FY 2018</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT before special items</td>
<td>1,307</td>
</tr>
</tbody>
</table>

Sales development

- FY 2018 vs. FY 2017:
  - Volumes: +2%
  - Prices: +5%
  - Portfolio: 0%
  - Currencies: -4%
Agricultural Solutions

Sales increased, earnings negatively impacted by the seasonality of the businesses acquired from Bayer

Sales Q4 2018 vs. Q4 2017

- Volumes: (6)%
- Prices: 6%
- Portfolio: 31%
- Currencies: (4)%

EBIT before special items

- Volumes: +8%
- Prices: +31%
- Portfolio: 10%
- Currencies: (7)%

Q4 2018 vs. Q4 2017

- Sales: €1,684 million vs. €1,328 million, +27%
- EBIT: €6,156 million vs. €5,696 million, +8%
- (82)% change in FY 2018 vs. FY 2017

FY 2018 vs. FY 2017

- Sales: €734 million vs. €1,033 million, +27%
- EBIT: €38 million vs. €207 million, (82)%
- (29)% change in FY 2018 vs. FY 2017
# Review of “Other”

<table>
<thead>
<tr>
<th>Financial figures</th>
<th>Q4 2018</th>
<th>Q4 2017*</th>
<th>FY 2018</th>
<th>FY 2017*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>million €</td>
<td>million €</td>
<td>million €</td>
<td>million €</td>
</tr>
<tr>
<td>Sales</td>
<td>727</td>
<td>602</td>
<td>2,771</td>
<td>2,234</td>
</tr>
<tr>
<td>EBIT before special items</td>
<td>(161)</td>
<td>(113)</td>
<td>(450)</td>
<td>(654)</td>
</tr>
<tr>
<td>Thereof</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs of corporate research</td>
<td>(148)</td>
<td>(112)</td>
<td>(414)</td>
<td>(379)</td>
</tr>
<tr>
<td>Costs of corporate headquarters</td>
<td>(66)</td>
<td>(57)</td>
<td>(249)</td>
<td>(224)</td>
</tr>
<tr>
<td>Foreign currency results, hedging and other</td>
<td>88</td>
<td>(91)</td>
<td>327</td>
<td>88</td>
</tr>
<tr>
<td>measurement effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other businesses</td>
<td>7</td>
<td>53</td>
<td>43</td>
<td>60</td>
</tr>
<tr>
<td>Special items</td>
<td>(1)</td>
<td>(7)</td>
<td>(41)</td>
<td>(37)</td>
</tr>
<tr>
<td>EBIT</td>
<td>(162)</td>
<td>(120)</td>
<td>(491)</td>
<td>(691)</td>
</tr>
</tbody>
</table>

* Restated figures due to reporting of oil and gas business as discontinued operation
**Oil & Gas**

Strong financial and operational performance in 2018

<table>
<thead>
<tr>
<th>Financial figures</th>
<th>FY 2018 (million €)</th>
<th>FY 2017 (million €)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>4,094</td>
<td>3,252</td>
<td>26</td>
</tr>
<tr>
<td>EBITDA</td>
<td>2,350</td>
<td>1,959</td>
<td>20</td>
</tr>
<tr>
<td>EBIT before special items</td>
<td>1,745</td>
<td>683</td>
<td>155</td>
</tr>
<tr>
<td>EBIT</td>
<td>1,733</td>
<td>935</td>
<td>85</td>
</tr>
<tr>
<td>Income after taxes from discontinued operations</td>
<td>829</td>
<td>760</td>
<td>9</td>
</tr>
<tr>
<td>Total assets</td>
<td>14,088</td>
<td>11,967</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational figures</th>
<th>FY 2018 (million)</th>
<th>FY 2017 (million)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production boe</td>
<td>171</td>
<td>164</td>
<td>4</td>
</tr>
<tr>
<td>1 P reserves boe</td>
<td>1,871</td>
<td>1,676</td>
<td>12</td>
</tr>
<tr>
<td>R/P ratio years</td>
<td>~11</td>
<td>~10</td>
<td>7</td>
</tr>
</tbody>
</table>

* Discontinued operation of Wintershall