We create chemistry for a sustainable future
BASF SRI Story March 2020
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 139 to 147 of the BASF Report 2019. BASF does not assume any obligation to update the forward-looking statements contained in this presentation above and beyond the legal requirements.
Our ambitious nonfinancial targets

Business success tomorrow means creating value for the environment, society and business

Grow CO₂-neutrally until 2030
(compared with baseline 2018)

Achieve €22 billion in Accelerator sales¹ by 2025

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 all production sites in water stress areas and at all Verbund sites by 2030

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

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

Cover 90% of our relevant spend² with sustainability evaluations by 2025

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

¹ Accelerator products are products that make a substantial sustainability contribution in the value chain.
² We understand relevant spend as procurement volumes with relevant suppliers.
Progress towards BASF’s nonfinancial goals

Absolute BASF greenhouse gas (GHG) emissions

Greenhouse gas emissions decreased by −8.2%, mainly due to turnarounds of our large petrochemical plants.

Emissions for 2020 are expected to increase to the 2018 level due to a lower number of planned turnarounds and the acquisition of Solvay’s polyamide business.

Accelerator sales 2019¹

- €15.0 billion sales from Accelerators (2018²: €14.3 billion)
- First assessment of strategically relevant trades, increasing the shares of Accelerator and Transitioner products

¹ The product portfolio acquired from Bayer has been partially assessed
² Restated figure due to reporting of construction chemicals as discontinued operation
BASF is committed to climate protection

- BASF is committed to contributing to the Paris climate agreement; Climate change and global warming are among the most pressing challenges of our time.
- 20 million tons of CO₂ emissions by BASF worldwide in 2019 compared to 10–30 million tons per year for one coal-fired power plant.
- BASF uses carbon raw materials responsibly: 75% of carbon converted to products, 25% consumed for process energy and converted to CO₂.
- European emissions trading benchmarks show that our chemical plants operate at above-average energy efficiency.
- We support the recommendations of the Task Force for Climate-related Financial Disclosure (TCFD) and participated in the “TCFD Preparer Forum for Chemicals” in 2019.
- BASF co-founded the World Economic Forum’s initiative on Collaborative Innovation for Low-Carbon Emitting Technologies in the Chemical Industry.
Verbund – unique competitive advantage
Actively managed in line with market requirements

Combined heat and power plants and integrated energy Verbund prevented 6.4 million tons of CO₂ emissions in 2019

Synergies in logistics and infrastructure, minimization of waste

Geismar
Antwerp
Ludwigshafen
Freeport
Nanjing
Kuantan
Zhanjiang
CO₂-neutral growth until 2030
Creating value to society and contributing to a sustainable development

- Since 1990, we have doubled our production volumes and cut our greenhouse gas emissions in halves; the emission intensity thus decreased by 75%
- We will grow our production volumes without adding further CO₂ emissions¹ until 2030 (emission intensity to be reduced by 30%)
- To achieve this, we establish a global carbon management that involves
  - continued operational excellence measures
  - shifting our energy mix towards renewable energies
  - a research program to develop breakthrough technologies for those basic chemicals which are most energy consuming²
- Temporary external offsetting measures considered

1. BASF operations excluding the discontinued oil and gas business; includes other greenhouse gases according to the Greenhouse Gas Protocol, which are converted into CO₂ equivalents
2. Accounting for approximately 70% of the CO₂ emissions of the chemical industry in Europe
Example: BASF Verbund site Ludwigshafen
80% of greenhouse gas emissions from power and steam production and basic chemicals production

in million metric tons CO₂e
Carbon management R&D program
Breakthrough process technologies for key petrochemicals

- E-furnace for electrification of steam crackers
- Dry reforming of methane for low-CO$_2$ olefin production
- Methane pyrolysis for CO$_2$-free hydrogen
- Sodium acrylate from CO$_2$ for superabsorbents
We source responsibly
Extend sustainability evaluations and improve sustainability performance in the supply chain

- Goal: Cover 90% of our relevant spend\(^1\) with sustainability evaluations by 2025 (2019: 81%), and have 80% of our suppliers improve their sustainability performance upon re-evaluation (2019: 52%)

- Supplier Code of Conduct rooted in internationally recognized standards such as the principles of the UN Global Compact and the International Labor Organization

- Engaged in more than 20 initiatives to improve sustainability performance and working conditions in the supply chain, e.g., Global Battery Alliance (GBA), Responsible Cobalt Initiative (RCI), Roundtable on Sustainable Palm Oil (RSPO)

- Founding member of the “Together for Sustainability” initiative for the joint evaluation of suppliers

- 4,197 sustainability assessments and 309 audits carried out by an independent service provider for member companies in 2019, thereof 537 assessments and 81 audits for BASF

\(^1\) We understand relevant spend as procurement volumes with relevant suppliers. We define relevant suppliers as Tier 1 suppliers showing an elevated sustainability risk potential as identified by our risk matrices and our purchasers’ assessments. We also use further sources of information to identify relevant suppliers such as evaluations from Together for Sustainability (TiS), a joint initiative of chemical companies for sustainable supply chains.
Global water stewardship
Strong commitment to local water management

- Further increase of water stress areas expected worldwide (climate change, population growth and economic development)
- Growing competition among water users expected (e.g., households, agriculture, industry)
- In 2019, BASF was included in CDP’s “Water A List” for sustainable water management
- Goal: Introduction of sustainable water management at all Verbund sites and sites in water stress areas\(^1\) by 2030, representing 93% of BASF’s entire water abstraction
- Water stress areas are regions where more than 40% of available water is used by industry, household and agriculture
- Status 2019: 36%
Engaged employees
Proud ambassadors for what BASF stands for

- BASF’s employees and their engagement are key to enable our long-term business success

- Annual goal: More than 80% of our employees feel that at BASF, they can thrive and perform at their best

- To measure the engagement, we
  - Collect regular feedback of our employees
  - Engage our employees in discussions on the results
  - Identify improvement areas and drive follow-up activities
  - Report on the current status in the BASF Report

- Global survey “Employee Voices” in 2019: 79% of all participants agreed to the statement that at BASF they can thrive and perform at their best
We create chemistry for a sustainable future
Overview on sustainability goals and KPIs

<table>
<thead>
<tr>
<th>Procurement</th>
<th>Goal</th>
<th>Status 2019</th>
<th>Status 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability assessment of relevant spend(^1)</td>
<td>90%</td>
<td>81%</td>
<td>60%</td>
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<tr>
<td>Suppliers with improved performance upon re-evaluation</td>
<td>80%</td>
<td>52%</td>
<td>–</td>
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<table>
<thead>
<tr>
<th>Employees</th>
<th>Annual</th>
<th>2019</th>
<th>2018</th>
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<tbody>
<tr>
<td>Employees feel that at BASF, they can thrive and perform at their best</td>
<td>&gt;80%</td>
<td>79%</td>
<td>–</td>
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<tr>
<td>Women in leadership positions</td>
<td>30%</td>
<td>23.0%</td>
<td>21.7%</td>
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<thead>
<tr>
<th>Production</th>
<th>2025</th>
<th>2019</th>
<th>2018</th>
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<tbody>
<tr>
<td>Process safety incidents(^2)</td>
<td>≤0.1</td>
<td>0.3</td>
<td>0.3</td>
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<tr>
<td>Lost-time injury rate(^2)</td>
<td>≤0.1</td>
<td>0.3</td>
<td>0.3</td>
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<table>
<thead>
<tr>
<th>Energy &amp; climate protection</th>
<th>Goal</th>
<th>Status 2019</th>
<th>Status 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute emissions of CO(_2) equivalents(^3)</td>
<td>≤22</td>
<td>20.1</td>
<td>21.9</td>
</tr>
<tr>
<td>Introduction of ISO 50001 energy management system at all relevant sites(^4)</td>
<td>90%</td>
<td>85%</td>
<td>70%</td>
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<tr>
<th>Water</th>
<th>2030</th>
<th>2019</th>
<th>2018</th>
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<tbody>
<tr>
<td>Sustainable water management at Verbund sites and sites in water stress areas</td>
<td>100%</td>
<td>35.8%(^5)</td>
<td>50.0%</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Products &amp; solutions</th>
<th>2025</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales generated by Accelerators(^6) in product portfolio</td>
<td>22</td>
<td>15.0</td>
<td>14.3</td>
</tr>
</tbody>
</table>

\(^1\) Relevant spend; based on risk matrices, purchasers' assessments and other sources
\(^2\) Per 200,000 working hours including contractor working hours (ICCA)
\(^3\) Million metric tons; includes other gases according to the Greenhouse Gas Protocol, which are converted into CO\(_2\) equivalents
\(^4\) Percentage of covered primary energy demand
\(^5\) Enlarged definition for water stress areas
\(^6\) Products with substantial contribution to sustainability; in billion Euro
BASF in sustainability ratings and rankings

CDP
In 2019, BASF achieved a score of A– in the climate category, thus attaining leadership status again; BASF was included in the “Water A list” of leading companies for sustainable water management.

MSCI ESG Research
In 2019, BASF was again rated AA and ranks third in “Diversified Chemicals”

FTSE4Good Global Index
BASF was included again in the FTSE4Good Global Index 2019, receiving the highest ESG rating score in the chemical industry.
Sustainable Solution Steering
Leverage our innovation power to achieve €22 billion in Accelerator sales by 2025

- >50,000 product applications analyzed by 2019\(^1\) (€51.9 billion in sales, 96.3% of relevant portfolio)
- First assessment of strategically relevant trades, increasing the shares of Accelerator and Transitioner products
- On average margins ~6 percentage points above the rest of assessed portfolio
- Goal: €22 billion of sales with Accelerator products by 2025
- Status 2019: €15.0 billion (2018\(^2\): €14.3 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

\(\text{\(^1\) The product portfolio acquired from Bayer has been partially assessed} \)
\(\text{\(^2\) Restated figure due to reporting of construction chemicals as discontinued operation} \)
Sustainable Solution Steering
BASF’s Accelerators contribute to the UN Sustainable Development Goals

Sales shares of contributing Accelerators (%)

- Cost savings downstream: 28.9%
- Biodiversity and renewables: 4.3%
- Climate change and energy: 0.1%
- Emission reduction: 68.3%
- Resource efficiency: 28.9%
- Water: 68.3%
- Health and safety: 68.3%
- Hunger and poverty: 68.3%

Primarily addressed SDGs

- Decent work and economic growth: 8
- Affordable and clean energy: 7
- Climate action: 13
- Sustainable cities and communities: 11
- Industry, innovation and infrastructure: 9
- Responsible consumption and production: 12
- Clean water and sanitation: 6
- Good health and well-being: 3
- Zero hunger: 2
Innovations for a sustainable future
Examples with significant contributions to sustainability

- SLENTITE® – high-performance insulation material
- Formic acid – eco-efficient runway and road deicing
- Acronal® MB – from biomass to dispersions
- ecovio® – compostable cling film for fresh-food packaging
- Inscalis® – insecticide with unique mode of action
- Synative® ES TMP – biodegradable marine lubricants
Circular economy
Chemical recycling represents a missing link for sustainable growth

- In 2019, BASF invested €20 million in Quantafuel (pyrolysis of mixed plastic waste and purification of the resulting oil)
- BASF providing technical support in the startup of Quantafuel’s commercial plant in Skive, Denmark

ChemCycling™
- can handle mixed plastic waste
- produces virgin-like raw materials
- replaces virgin fossil resources

Plastic waste is converted into liquid feedstock and fed into BASF’s value chains

Close the loop

Linear economy

Mechanical recycling

Landfill  Incineration  Littering
Alliance to End Plastic Waste (AEPW)
Develop and deploy solutions, catalyze investment and engage communities

- Founded in 2019
- 46 members from entire plastics value chain
- Commitment to spend US$1.5 billion over five years for
  - Infrastructure development
  - Innovation
  - Education and engagement
  - Clean-up
- Example: collaboration with non-profit initiative RenewOceans in Varanasi, India (Ganges river)
  - ReFence technology to collect plastic from waterways
  - Waste management strategy for university campus
  - RenewShed to be built on campus
  - Strategy for scaling and franchising of the existing model

RenewOceans volunteers, talking to a school class in Varanasi, India
Electromobility
Fast-paced buildup of global cathode active materials (CAM) footprint

2012
First CAM production facility in Elyria, Ohio

2018
Second CAM production facility in Battle Creek, Michigan; merged with Elyria, Ohio into BASF TODA America (BTA)

2022
CAM precursor production planned in Harjavalta, Finland

Europe planned greenfield production

2022
CAM production planned in Schwarzheide, Germany

2017
Tripled capacity at BTBM in Onoda, Japan

2015
Foundation of BASF TODA Battery Materials (BTBM), Japan

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

Chemistry of cathode active materials is key to address electromobility challenges
Value-to-Society: changing the perspective
Assessing and valuing the impact of BASF’s business activities on the well-being of people

- From traditional reporting of input and output (e.g., raw materials, CO₂ emissions) to outcome and impact valuation (e.g., climate change, mitigation costs)
- Holistic view along the entire value chain
- Consistent assessment in monetary terms
- Pragmatic approach, aligned with existing standards and audited by KPMG
BASF’s Value-to-Society 2018
Net positive contribution to sustainable growth in each step of the assessed value chain

<table>
<thead>
<tr>
<th>Full external supply chain¹</th>
<th>Own operations</th>
<th>Customer industries²</th>
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<tbody>
<tr>
<td>Net income</td>
<td>Value contribution from BASF procurement</td>
<td>Value contribution from BASF operations</td>
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<tr>
<td>Amortization</td>
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<td>Taxes</td>
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<td>Wages &amp; benefits</td>
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<td>Human capital</td>
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<td>Health &amp; safety</td>
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<td>Air emissions</td>
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<td>GHG</td>
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<td>Land use</td>
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<td>Waste</td>
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<tr>
<td>Water consumption</td>
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<tr>
<td>Water emissions</td>
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billion €

¹ Indirect suppliers, direct suppliers
² Customers in industries supplied by BASF
Value balancing alliance
Joining forces for transformation

- Founded in June 2019
- Increase transparency on value creation of companies by
  - standardizing calculations
  - ensuring comparability of results
  - piloting in management accounting
  - making outcomes publicly available
- Ambition: transform business from maximizing profits to optimizing value creation

Support from politics, financial markets, academia, business, standard setters, civil society
SLENTITE®
High-performance insulation panel for construction

- PU aerogel as solid panel with best in class thermal insulation
- Flexible scope of design thanks to very slim panel (25–50% less than industry standard)
- Construction solution for reduced energy consumption
- Most efficient product for the preservation of the historical character of an old building
- Strong growth potential in a strategic relevant market of €1.3 billion
- First boards from pilot plant are being commercialized
- Start of large scale production in 2021
Formic acid
Ecoefficient runway and road deicing

- 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
- Enabling ecoefficient deicing
- Key customers won: In Europe, all big airports are now using formate salts, the salt of formic acid
Acronal® MB
From biomass to dispersion for premium paints

- First BASF binder for interior paints based on the biomass balance approach launched in 2016
- Replacing fossil raw materials with renewable feedstock at the beginning of the production process
- Less greenhouse gas emissions
- Enabling interior paints that combine environmental responsibility with uncompromising premium quality
- 91% of interviewed professional painters in Germany see an increase in sustainability aspects in tenders

BASF Verbund production steps

Feedstock
- Renewable
- Fossil

Products
- Allocated
- Conventional

Renewable Feedstock Products
Conventional

BASF Verbund production steps
ecovio®
Compostable cling film for fresh-food packaging

- Developed together with Fabbri Group
- Certified compostable according to standards for industrial composting and home composting
- Optimal breathability for an extended shelf life of fresh food
- High transparency and excellent mechanical properties for automatic packaging
- Reducing food waste, lowering greenhouse gas emissions and promoting organic recycling
**Inscalis®**
Insecticide with unique mode of action

- New standard in the piercing and sucking insect pest market, delivering exceptional control of aphids, whiteflies, jassids and psyllids

- Derived from a natural fermentation process, Inscalis® has a favorable environmental profile exhibiting minimal impact on important beneficial arthropods and pollinators

- With a quick onset of action, Inscalis® insecticide quickly stops insect pests’ feeding, reducing nutrient loss and harmful viral/bacterial pathogens

- Resulting in healthier plants and optimal yields with higher quality
Synative® ES TMP
Environmentally acceptable marine lubricants

- Superior lubrication performance, excellent stability
- Lower impact on the aquatic environment
- Excellent biodegradability
- Renewable content of >80%
- One of few products to enable the formulation of environmentally acceptable lubricants for marine with EU Ecolabel and OSPAR\(^1\) listing
- Key customers won; considerable growth potential, depending on future regulation

\(^1\) Oslo/Paris convention for the protection of the marine environment of the North-East Atlantic