Care Chemicals

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President Care Chemicals division

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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.
Care Chemicals serves resilient markets worth €50 billion globally offering growth opportunities through sustainable innovation.

- **Personal care**: €12bn (~2%)
- **Home care and I&I solutions**: €17bn (2-3%)
- **Industrial formulators**: €21bn (1-2%)

**New brands/channels** gaining market share

**Digitalization** drives new business models

**Faster innovation cycles** call for speed-to-market

**Demand for more sustainable products**

Consumers call for **transparency** and **traceability**

Greater **resource efficiency** required

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1 Source: BASF primary and secondary market research
2 Expected market CAGR 2019–2024
Care Chemicals’ strengths in each industry segment provide us with unique selling propositions

- High-quality, **value-added products** for the personal care industry ranging from oleo-surfactants to UV filters
- Largest **provider of ingredients** for natural cosmetics
- Interpreting consumers and societal trends to constantly develop **new products, formulations and claims**

**Personal care**
- **50%**
- #1

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- High-performance **building blocks** for detergents and cleaning solutions
- **Innovating** with our customers to drive solutions to sustainability trends and constantly changing regulatory framework
- **Global asset footprint** with strong value chain integration

**Home care and I&I² solutions**
- **29%**
- #1

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- **Technology expertise** for **customer and industry-specific solutions**
- Leverage **product and technology synergies** for industrial applications
- Understanding physiochemical effects allows for **product differentiation**

**Industrial formulators**
- **21%**
- Top 3
Balanced footprint enables participation in market dynamics across businesses and regions

Sales by region\(^1\) 2020

- South America, Africa, Middle East: 9%
- North America: 20%
- Asia Pacific: 19%
- Europe: 52%

€3,989 million

Sales by direct customer industry 2020

- Industrial formulators: 21%
- Personal care: 50%
- Home care: 29%

€3,989 million

\(^1\) By location of customer
Substantial divisional profitability improvement over recent years following stringent implementation of strategic measures

- Continuously increasing EBITDA contribution from the underlying businesses across the portfolio
- Average EBITDA before special items margin 2015–2020: 17% p.a.
- Pandemic-driven elevated demand in the first half of 2020 normalized in the second half of 2020
- Customers appreciated our supply reliability and flexibility in 2020
- Market recovery in personal care businesses not expected prior to the second half of 2021
Care Chemicals’ global asset footprint – reliability for our customers and cost competitiveness

**North & South America**
- 12 Production sites
- 5 Research & development hubs
- 6 Application and technical service locations

**EMEA**
- 12 Production sites
- 6 Research & development hubs
- 13 Application and technical service locations

**Asia Pacific**
- 11 Production sites
- 2 Research & development hubs
- 6 Application and technical service locations
Investments across our assets and capabilities for future growth with focus on bio-based/biodegradable technologies

- An all-round surfactant made from 100% natural feedstock with proven mildness for personal care, cleaning efficiency and industrial applications
- Increased alkylpolyglucoside production capacity in Asia started in 2019 to further improve supply reliability
Our ambition is to maintain and further expand our leading global market position with differentiating offerings for our customers

<table>
<thead>
<tr>
<th>Sustainability</th>
<th>Innovation</th>
<th>Digitalization</th>
<th>Asia Pacific</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>We enable customers to source responsibly and optimize their carbon footprints</td>
<td>We strive to further expand our bio-offering to maintain our competitive advantage</td>
<td>We digitalize the customer experience with new data-driven solutions</td>
<td>We pursue further investments in the largest market for personal and home care</td>
<td>We drive joint innovation in close collaboration with our customers and partners</td>
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</table>
We enable customers to source responsibly with integrated concepts

Key milestones achieved for palm (kernel) oil; concept to be expanded for further raw materials

2020: 100% RSPO¹ certified palm (kernel) oil

Over 300,000 tons of CO₂ emissions avoided in 2020

~95% traceability for our global palm footprint in 2020

We adapted our palm sourcing policy to drive forest conservation targets

¹ RSPO: Roundtable on Sustainable Palm Oil
We make the carbon footprint of each of our products transparent, enabling our customers to achieve their goals.

“BASF’s initiative to calculate carbon footprints for all sales products is setting a benchmark for the industry. This level of transparency not only enables BASF to demonstrate how they contribute to our goal to reduce the carbon footprint of our raw materials and packaging by 30% by 2030, it also helps us identify where we can drive progress in our raw material portfolio and work in partnership towards Henkel’s climate-positive ambition.”

One of our key customers

Bertrand Conqueret
Chief Procurement Officer
We have a broad bio-offering\(^1\) and will significantly expand this offering in the future.

**Brands representing our bio-offering**

### Typical laundry formulation
- **Water**: 65%
- **Surfactants**: 20% (Glucopon\(^\circledR\))
- **Polymers**: 2–3% (Sokalan\(^\circledR\) HP 56, EcoBalanced)
- **Chelating agents**: 1–2% (Trilon\(^\circledR\) M)
- **Enzymes**: 1–2% (Lavergy\(^\circledR\) Pro)
- **Optical brighteners**: 0–1% (*in progress*)
- **Others**

### Typical face cream formulation
- **Water**: 60–80%
- **Emollients**: 10–20% (Cetiol\(^\circledR\) Ultimate)
- **Emulsifiers**: 2–5% (Eumulgin\(^\circledR\) SG)
- **Polymers**: 0.1–2% (Rheocare\(^\circledR\) XGN)
- **Actives**: 1–2% (Nephydrat\(^\circledR\) BC)
- **UV filters**: 0–1% (*in progress*)
- **Others**

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\(^1\) Bio-offering includes both bio-based and biodegradable products.
We maintain our competitive advantage through innovations such as the biodegradable chelating agent Trilon® M

1st Generation
High-performance phosphate alternative
Trilon® M liquid
Trilon® M SG granules

2nd Generation
Technologically advanced, high-performance solution
Trilon® M Max liquid
Trilon® M Max granules
Trilon® M liquid T
Trilon® M SG granules T

2nd Generation +
Improved odor/color glass protection
Trilon® Ultimate 1G
Trilon® Ultimate 2G

Bio-based concepts
Implementation of bio-based concepts
Trilon® M Max BioBased
Trilon® M Max EcoBalanced

Next generations
Customer-specific solutions and improved performance products

Fundamentals | Growth levers: Sustainability - Innovation - Digitalization - Asia Pacific - Collaboration

Sales CAGR¹
+20%

2012
2014
2016
2019
Future

CAGR 2012–2020

1  CAGR
We digitalize the customer experience with new channels and new data-driven offerings

**BEAUTY CASE 4.0**

Personalized Cosmetics

- Analyze your skin and the environment
- Design your cosmetics
- Make your own cosmetics
- Monitor and adjust your preferences

Fundamentals | Growth levers: Sustainability - Innovation - Digitalization - Asia Pacific - Collaboration
We pursue further investments in the largest market for personal and home care today and in the future

Personal and home care retail market\(^1\)
Regional split, value share 2019–2024

- Additional investments in fastest growing markets in Asia Pacific
- Close customer collaboration yielding further innovations through joint development labs
- Care Chemicals’ assets will be integrated in the Verbund site in South China, reaping full integration benefits
- Innovating for Asian consumers who are early adopters and appreciate new and innovative solutions

<table>
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<tr>
<th>Region</th>
<th>2019 Value Share (%)</th>
<th>2024 Forecast (%)</th>
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<tbody>
<tr>
<td>North America</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>South America</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Europe</td>
<td>31%</td>
<td>31%</td>
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<tr>
<td>Asia Pacific (Developed)</td>
<td>38%</td>
<td>42%</td>
</tr>
<tr>
<td>Asia Pacific (Emerging)</td>
<td>4%</td>
<td>7%</td>
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<tr>
<td>Greater China</td>
<td>+7%(^2)</td>
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<tr>
<td>Developed Asia</td>
<td>+1%(^2)</td>
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<tr>
<td>Emerging Asia</td>
<td>+4%(^2)</td>
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\(^1\) Source: Euromonitor yearly update (Nov 2020) \(^2\) Expected market CAGR 2019–2024
We innovate with customers in joint labs and incubators enabling us to effectively place innovation in the market

- **Strategic alliance – co-innovation** in Ludwigshafen, Germany
- 20 years of collaboration for **superior performance in home care**: Tide, Ariel, Dawn, Downy, Fairy, Joy, Cascade

**P&G**

**L’ORÉAL**

- **Agile innovation in personal care** – joint incubator in Shanghai, China
- **Accelerate innovation** – target **time-to-market** of only a few months
- The setup is well suited to **quickly respond** to market trends in the fast-moving consumer goods industry
We expand our leading global market position by catering to sustainability and innovation needs

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<td>▪ 100% RSPO-certified palm (kernel) oil as of 2020</td>
<td>▪ Invest over 50% of R&amp;D expenses in bio-based/biodegradable portfolio</td>
<td>▪ Digitalize our solution-oriented business models to reduce response times and increase overall reliability</td>
<td>▪ Continue to build up production and innovation capabilities in the fastest growing markets in Asia</td>
<td>▪ Continue to closely interact with more than 7,000 customers across 130 countries</td>
</tr>
<tr>
<td>▪ By 2025 – expand commitments to significant intermediates based on palm oil and palm kernel oil</td>
<td>▪ Continue to provide close customer support with development expertise alongside 9 core technologies</td>
<td>▪ Leverage digital opportunities with new data-driven business models supported by a network of partners</td>
<td>▪ Be part of the Verbund site investment in South China</td>
<td>▪ Joint labs and incubators with industry-leading companies to navigate the FMCG space</td>
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<tr>
<td>▪ Offer Product Carbon Footprints for the entire portfolio</td>
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We create chemistry