Media Day 2017
The new LANXESS segment Specialty Additives

Anno Borkowsky, Head of Business Unit Additives
Philipp Junge, Head of Business Unit Rhein Chemie
Cologne, September 5, 2017
Agenda

- New LANXESS segment Specialty Additives
- Business Unit Additives
  - Flame Retardants
  - Lubricants Additives
  - Bromine Solutions
- Business Unit Rhein Chemie
  - Rubber Additives
  - Colorant Additives
Segment benefits from rising customer requirements

Customers require more specialized and efficient solutions

- Regulatory frame
  - Product performance
  - Efficiency in use
  - High added value relative to customer costs

Solid growth perspective

- Average growth rate (CAGR) of additives*: 
  ~ 4% until 2021
- Megatrends Urbanization and Mobility
- Increasing demand for plastics and polymers

* LANXESS Segment Specialty Additives core markets (E&E, Transportation, Construction, General Industries) / Source: World Industry Service & LANXESS assumptions
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  - Flame Retardants
  - Lubricants Additives
  - Bromine Solutions

- Business Unit Rhein Chemie
  - Rubber Additives
  - Colorant Additives
Key Facts

- **Head of Business Unit**: Anno Borkowsky
- **Employees**: about 2,000
- **Customers**: around 2,000 in more than 100 countries
- **Products**: more than 1,100

Business Lines

- Lubricant Additives
- Plastic Additives
- Bromine Solutions
Well diversified set-up

Sales by end use:
- Construction: 14%
- Transportation: 22%
- Distribution: 4%
- Industrial Manufacturing: 3%
- Agro: 4%
- E&E: 13%
- Oil & Gas: 3%
- Consumer Products: 31%
- Energy: 3%
- Others: 3%

Sales per region:
- APAC: 22%
- EMEA: 42%
- AMERICAS: 36%
LANXESS drives innovation & technology

Evolution of Flame retardants (FR)

- Monomeric FR
- Oligomeric FR
- Polymeric FR
- Reactive FR

Technology level

- Low
- High

Market acceptance

- Low
- High

Strategic focus

Among the top global players

- Market shares:
  - # 1/2 in brominated flame retardants in Europe
  - # 2 globally*
  - # 2 in phosphorous flame retardants in Europe
  - # 3/4 globally*

* Source: European Commission, IHS Specialty Chemicals Update Program – Flame Retardants 2014
Lubricant Additives: LANXESS with fully integrated value chain

Illustrative

LANXESS

Synthetic base stocks

Chemical Intermediates

Greases

Additives

Packages

Finished Fluids

Customers

Competitor A

Competitor B

Competitor C

Customers
Bromine Solutions: an integrated leading player with a strong and diverse portfolio

**Strong backward integration**

- **Bromine Reserves**
- **Elemental Bromine**
- **Bromine Derivatives**

**Leading market position**

- Cost competitive bromine extraction
- Leading transportation fleet for elemental bromine
- Bromine reserves last more than 75 years

LANXESS Bromine production is located in El Dorado, Arkansas, USA

* ICL, Albemarle and LANXESS
On the growth path

Integrate
- Business integration and implementation of synergies
- Leverage improved regional footprint

Enhance
- Realize cross-selling opportunities and increase competitiveness
- Extent business focus on Asia Pacific

Develop
- Strategic focus on product development
- Specialize and innovate our product portfolio
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  - Colorant Additives
Business Unit Rhein Chemie at a glance

Key Facts

- **Head of Business Unit**: Philipp Junge
- **Employees**: about 1,000
- **Customers**: around 3,000 in more than 120 countries
- **Products**: more than 2,000

Business Lines

- Rubber Additives
- Colorant Additives
Focus on technical solutions for attractive end markets (*selection*)

<table>
<thead>
<tr>
<th>Colorant Additives Business (CAB)</th>
<th>Automotive</th>
<th>Plastics</th>
<th>Electronics</th>
<th>Paints &amp; Coatings</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Automotive" /></td>
<td><img src="image2" alt="Plastics" /></td>
<td><img src="image3" alt="Electronics" /></td>
<td><img src="image4" alt="Paints &amp; Coatings" /></td>
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</table>

<table>
<thead>
<tr>
<th>Rubber Additives Business (RAB)</th>
<th>Automotive</th>
<th>Tire</th>
<th>Other Rubber</th>
<th>Coatings</th>
<th>Other</th>
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<td><img src="image6" alt="Automotive" /></td>
<td><img src="image7" alt="Tire" /></td>
<td><img src="image8" alt="Other Rubber" /></td>
<td><img src="image9" alt="Coatings" /></td>
<td><img src="image10" alt="Other" /></td>
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</tbody>
</table>
Resilient set-up

Sales by end use:
- Automotive: 28%
- Tires: 30%
- Plastics: 29%
- Chemistry: 6%
- Electronics: 4%
- Others: 3%

Sales by region:
- EMEA: 25%
- APAC: 33%
- AMERICAS: 42%
Solutions for technically demanding customers

Rhein Chemie’s additives focus on high value-add solutions

Competitive advantages

- High service level and top technical expertise
- Outstanding regulatory* knowhow
- Leading in environmental sustainability and safety

Illustrative

Bubble size illustrates sales volumes of product groups
* E.g. REACH, FDA, JHOSPA (Japan Hygienic Olefin and Styrene Plastics Association) as well as all other regional regulatory initiatives
Rubber Additives benefit from a unique and differentiated business set-up

Strong mix of business characteristics

- **LANXESS Rubber Additives**
- Competitor landscape

<table>
<thead>
<tr>
<th>Category</th>
<th>LANXESS Rubber Additives</th>
<th>Competitor landscape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio</td>
<td>narrow</td>
<td>wide</td>
</tr>
<tr>
<td>Regional set-up</td>
<td>local</td>
<td>global</td>
</tr>
<tr>
<td>Quality</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>Service level</td>
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<td>high</td>
</tr>
<tr>
<td>Regulatory</td>
<td>weak</td>
<td>strong</td>
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</table>

Illustration of LANXESS Rubber Additives' unique and differentiated business set-up compared to the competitor landscape.
Accelerate with smart solutions

**Enlarge**
Gain market share in both Americas and APAC by pursuing further market consolidation

**Enhance**
Implement planned organic investments in capacity expansions

**Develop**
Provide innovative products & services for existing and new business fields