LANXESS – Driving Sustainable Success

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Member of the Board of Management

3rd LANXESS Media Day
Cologne, September 17, 2008

Agenda

- Performance Polymers – segment introduction
  - The global tire markets – stable and with future potential
  - Business Unit Butyl Rubber – driving success
  - LANXESS R&D – proactively leveraging market opportunities
  - Active development of major growth regions
  - Outlook and major trends
Performance Polymers – a core business of LANXESS

Performance Polymers
- Butyl Rubber
- Performance Butadiene Rubbers
- Technical Rubber Products
- Semi-Crystalline Products

Advanced Intermediates
- Basic Chemicals
- Satigo

Performance Chemicals
- Material Protection Products
- Inorganic Pigments
- Functional Chemicals
- Leather
- RheoChemie
- Rubber Chemicals
- Ion Exchange Resins

Sales: > EUR 500 million  Sales: EUR 200 – 500 million  Sales: < EUR 200 million

Performance Polymers – leading market positions with strong and diversified portfolio

Globally competitive position
- Strong global production footprint
- High capacity utilization in all business units
- Successfully passing on cost increases to customers

Strict market orientation
- Premium quality products across entire portfolio
- Customer proximity: moving with customers to Asia

Profitable growth opportunities
- Increasing replacement of metal parts in automotive segment
- Growing demand for high-performance applications (e.g., tires)
- Increasing environmental standards for end-products globally

Strong position in attractive markets
**Performance Polymers – vital pillar of LANXESS business**

<table>
<thead>
<tr>
<th>Segment performance indicators</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Change 05/07 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2,425</td>
<td>2,571</td>
<td>2,680</td>
<td>10.5</td>
</tr>
<tr>
<td>Share of Group sales</td>
<td>34%</td>
<td>37%</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>EBITDA*</td>
<td>287</td>
<td>340</td>
<td>376</td>
<td>31</td>
</tr>
<tr>
<td>EBITDA margin*</td>
<td>11.8%</td>
<td>13.2%</td>
<td>14%</td>
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</tbody>
</table>

| Capital expenditures           | 102   | 126   | 139   | 36                |
| Employees (as of Dec. 31st)    | 4,315 | 4,194 | 4,334 | <1                |

<table>
<thead>
<tr>
<th>Sales volume by business unit</th>
<th>&lt; € 200 mn</th>
<th>–</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>€ 200–500 mn</td>
<td>–</td>
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<tr>
<td>&gt; € 500 mn</td>
<td>Butyl Rubber (BTR)</td>
<td></td>
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<tr>
<td></td>
<td>Performance Butadiene Rubbers (PBR)</td>
<td></td>
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<tr>
<td></td>
<td>Technical Rubber Products (TRP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi-Crystalline Products (SCP)</td>
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* Pre-exceptionals

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**Performance Polymers supplies high-performance rubbers & plastics to a vast number of industries and applications**

**Performance Polymers**
- Butyl Rubber
- Performance Butadiene Rubbers
- Technical Rubber Products
- Semi-Crystalline Products

**Application overview – Performance Polymers**

**Rubber Business Units**

**Plastics Business Unit**
Performance Polymers applications supply a multitude of industries, with automotive and tires in the forefront.

LANXESS sales distribution by industry, 2007

- **Tires**: 24%
- **Automotive / Transportation**: 12%
- **Construction**: 9%
- **Agro**: 9%
- **Other**: 25%

Performance Polymers’ solutions for the automotive & tire segment

**Automotive segment**
- Semi-crystalline products
  - Hybrid metal-plastic composites, various improved solutions in car construction
- Technical rubbers
  - Oil and temperature-resistant applications, such as timing belts, hoses, etc.

**Tire segment**
- Butyl rubber
  - Inside the tire, distributed on the inner layer to make it airtight
- Butadiene rubber
  - Various functions in the tires

60% of Performance Polymers’ revenue is from the automotive and tire segment

Performance Polymers sales distribution by industry, 2007

- **Tires**: 42%
- **Automotive / Transportation**: 18%
- **Other**: 40%

Tire rubbers are core business of LANXESS rubbers

- **Automotive**:
  - Plastics: SCP
  - Rubber: BTR
  - Rubber: PBR
  - Rubber: TRP
- **Tires**:
  - 0-4% of sales
  - 5-25% of sales
  - 26-55% of sales
  - 56-85% of sales
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- The global tire markets – stable and with future potential
- Business Unit Butyl Rubber – driving success
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- Active development of major growth regions
- Outlook and major trends

Overall growth rate of about 4% globally will continue driving one of our key markets

Tire market trends
- Positive development in APAC fuelled by
  - increasing mobility across the region
  - continuing upgrade from two to four wheels
  - ongoing transition to radial tires
- South America is picking up pace
- EMEA with moderate growth, mainly driven by Eastern Europe and Russia
- US Market is slowing down
- Overall positive developments more than compensate for weak spots and drive a global growth rate of about 4%

Global tire market by region [in millions of units]

Source: LMC
Increasing quality requirements fuel demand, particularly for high-performance tires

Growing demand for high-performance tires

- 2000: 260 million
- 2005: 420 million
- 2010: 610 million

9% CAGR

High-performance tires
- Better overall driving performance
- Reduced rolling resistance
- Superior safety characteristics
- Reduced wear / increased longevity

“Magic Triangle”

LANXESS rubber businesses are actively driving market trends

Standard tire composition (by weight)

- Natural rubber
- Synthetic rubber: SBR, NBR, CR, and Li-BUTADIENE rubber
- Synthetic rubber: Hafosyl® Rubber (XIR) (RUC & RCH)
- Textile & steel cord
- Filler
- Chemicals

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- PBR: fuel economy, crack resistance, elasticity, wear resistance
- BTR: air impermeability, accelerators, antioxidants, additives, others

Synthetic rubbers helping to achieve high-performance requirements
Rubber Business Units developing high-quality solutions jointly with tire producers
LANXESS is actively pushing development and setting new industry standards:
- Rubbers using non-toxic-extender oils
- NdBR rubbers enable improved rolling resistance and noise reduction
Political initiatives & changing customer perception further fuel the demand for environmentally friendly tires

Political initiatives in the EU
- **2010**: all new tires have to be produced with environmentally friendly oils (TDAE)
- **2012**: law to be passed to equip all new cars with tires optimized for rolling resistance, noise emission and wet grip

**Implications**
- Continuing attitude changes and political initiatives will drive the need for further development of high-performance tires
- It is very likely that other regions / countries will follow this trend

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Positive tire market development more than compensates slowdown in the USA

Regional development of trends in the tire markets

<table>
<thead>
<tr>
<th>Further development of environmental standards and quality</th>
<th>North America</th>
<th>Latin America</th>
<th>Europe</th>
<th>Asia</th>
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<tbody>
<tr>
<td><strong>Cars in operation</strong></td>
<td><img src="up.png" alt="Up" /></td>
<td><img src="up.png" alt="Up" /></td>
<td><img src="up.png" alt="Up" /></td>
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<tr>
<td><strong>Volume of truck transport</strong></td>
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USA car market not as dynamic as in the past but a large number of cars remain on the road

Strong growth from Eastern Europe and Russia

Globalization drives increasing trade flows within a continent and globally

Truck tires disproportionately important

**Slowdown in USA will be more than compensated for by BRIC countries**
Acquisition of Petroflex further strengthened LANXESS’ leading position to meet future demand in growth regions

Fact sheet Petroflex
- Public Brazilian company & largest synthetic rubber producer in Latin America
- 1300 employees generate about EUR 500 million turnover with 400kt rubber
- Well diversified product portfolio with over 70 different grades
- Operates three strategically-located plants, situated close to ports

Integration process
- Integration process of business into BU PBR began in April 2008
- Integration proceeding successfully
- Technology upgrade of Brazilian sites initiated

Further strengthening our global footprint in synthetic rubber

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R&D – an important contributor to our sustainable success

Market-oriented R&D
- R&D at LANXESS is mostly business focused
- Allocated to individual business units
- Working closely with customers
- Central coordination and support units assure interaction and knowledge exchange
- Green Chemistry of increasing importance
- LANXESS process engineering department assures best-in-class process know-how and support

R&D mainly in existing products or in existing markets
Research efforts around the globe driven by economics, environment and market requirements

- Expansion of worldwide research network
  - New research centers in growing markets like China, Brazil
- Drivers of global R&D
  - Customer requirements
  - Economic considerations
  - Environmental issues
  - Handling
  - Safety
  - Strategic aspects

LANXESS’ global R&D network

LANXESS

15 R&D centers for optimized market proximity

Proactively seizing market opportunities: increasing focus on solutions to global megatrends

Key megatrends for LANXESS R&D
- Resource scarcity
- Demographic change
- Increasing mobility
- Urbanization
- Climate change

R&D solutions to proactively address megatrends
- Growing relevance of environmental issues
- Green chemistry in products and processes
- Resource-saving production processes
- Products that enable or support mobility and follow urbanization trends
- Products and solutions that enable optimal use of resources

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Nanoprene – improving environmental performance and benefiting from the market for new mobility solutions

**Nanoprene**

**Improved environmental performance of tires**
- **Applic.:** additive to tires
- **Effects:**
  - significant improvement of abrasion resistance while keeping other tire parameters stable
  - increased tire lifespan and reduced rubber particle emissions

**Special growth prospects in the fuel cell market**
- **Applic.:** component in fuel cell membranes
- **Effect:** enabling increased service temperature* and thereby significant efficiency increases in engine
- **Market:** potential: fuel cell market expected to reach about USD 18.6 billion in 2013

Source: Energy Business Report, July 2008; * From 60°C to 200°C

Baynox – improving resource efficiency by increasing long-term stability of biofuels

**Baynox**

- **Application in biodiesel**
  - Chemical structure similar to Vitamin E
  - In tests conducted by the University of Rostock, Baynox plus proved to be the most effective antioxidant
- **Effects:**
  - Prevents formation of insoluble polymers in biodiesel
  - Makes biodiesel stable for long-term storage and enables transport over longer distances
  - Stops process of decomposition in biodiesel
- **Market potential**
  - Expected market potential EUR 80-100 million per year

Incl. Baynox®
Therban – increasing flexibility for our customers while saving energy and processing time

Therban AT

- **Application**
  - Innovative new chemistry based on Nobel Prize-winning innovations allows reduction of molecular weight of the rubber
- **Effects: flexibility and efficiency improvements**
  - Enables processing of products by customers via injection molding process
  - Over classical processing, it significantly increases flexibility while decreasing energy demands and processing time
- **Market potential**
  - Expected to generate further profitable growth and increase its contribution to overall LANXESS profitability

*Grubbs, Schrock and Chauvin, 2005*

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Green Chemistry operations – sustainable use of resources and improvement of environmental footprint

**Increasing sustainability in the entire value chain**

- Innovative technologies, products and solutions to improve the environmental footprint of operations
- **Aim:** reduction of climate gas emissions by 80% by 2012*
- **Selected projects and their effects:**
  - Utility provider Currenta: commitment to reduction of total CO₂ emissions by 2012 by 200,000 tons
  - New LARA facility in Krefeld-Uerdingen: complete removal of N₂O*** from our emissions through reduction of 5,000 tons N₂O (laughing gas, equal – 1.5 million tons CO₂) per year
  - Porto Feliz: large-scale environmental initiative to reduce water consumption by nearly 50% compared to 2004 levels and reduce solid waste by almost 40%

* In Germany; ***a harmful climate gas*
Launch of new Innovation Initiative to further leverage resources and address future megatrends

LANXESS Innovation Initiative
- Concept
  - Dedicated expert team to identify specific issues and new target areas and then to form activity clusters
  - New R&D structures: fully operational from January 2009
  - Programs with leading universities and research institutes, industry cooperation
- Main drivers
  - Further leveraging opportunities of global trends and challenges
  - Activities to make businesses and key processes future-proof
  - Application of skills and competencies to supply solutions for megatrends of the future

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BRIC countries are core growth drivers, but LANXESS has yet to focus on Russia/CIS

Russian/CIS markets highly attractive for chemical companies

Positive market dynamics Russia
- GDP growth of 8.1% 2007
- Dynamic development drives demand for chemical products through
  - Booming car industry
  - Increasing tire production
  - High investments in infrastructure and buildings
- Existing producers cannot fully meet growing quality and reliability requirements
- Chemical industry needs to catch up and has high investment needs

High potential to benefit from dynamic Russian chemical market

Chemical industry growth 2007*

Source: Global Insight, * Nominal (EUR)
LANXESS in Russia/CIS 2008: growth opportunities not realized to full extent

- Current representation of LANXESS in Russia through 3rd party sales agencies
- Russia/CIS business accounts for less than 1% of LANXESS' global turnover
- Of all the BRIC countries, Russia/CIS is highly underrepresented
- Chemical market offers very positive growth potential that is not reflected in LANXESS' local sales

**Strong need to foster market development**

*Source: Global Insight (Nominal (EUR))

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Proactive market entry with own legal entity as of January 1, 2009

- Local sales & distribution entity has been registered
- Taking over of 3rd party sales team
- Active increase of market development by LANXESS businesses
- Support of market entry through targeted local R&D cooperation
- Proactively seizing organic and external growth and investment opportunities
- Preparing the platform for further expansion and new activities

**Establish LANXESS in Russian chemical market to further growth**
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LANXESS – proactively driving sustainable growth amid market uncertainty

- **Organic growth**
  - Key investment in Singapore
  - Removing bottlenecks in existing production units
  - Strengthening presence in Russia / CIS

- **External growth**
  - Acquisition of synthetic rubber producer Petroflex
  - Further screening for attractive targets in key growth markets

- **Focus on innovation**
  - Efficient, lean and clear R&D organization
  - New innovation initiative in order to capitalize on market opportunities & make LANXESS future-proof