The chemical sector in the Czech Republic, successful restructuring of Spolchemie

Evolution of the European Chemical Industry

Dresden, 3 May 2007

Martin Procházka
Chairman of the Board of Directors Of Spolchemie
Agenda

- Association of Chemical Industry of the Czech Republic
  - Present, Perspectives and Challenges

- Spolchemie
  - Chemie on the Move
Czech Chemical Industry

- It comprises processing of crude oil (15%), production of chemical substances and preparations (40%), pharmaceutical, plastics and rubber industry (45%)
- The industry holds the 3rd position in the Czech Republic based on revenues
- It creates 13% of GDP of the Czech Republic
- The industry employs 106,000 employees
- The industry is a decisive supplier of raw materials for a number of downstream industries!!!
- It belongs to industry branches with highest number of innovations
Main Chemical Companies in CR

- CHEMOPETROL, Litvínov
- HEXION, Sokolov
- LOVOCHEMIE, Lovosice
- SPOLANA, Neratovice
- BorsodChem MCHZ, Ostrava
- KAUČUK, Kralupy
- ČESKÁ REFINÉRSKÁ
- DEZA, Valašské Meziříčí
- PARAMO, Pardubice
- SYNTHESIA, Pardubice
Czech Chemical Industry within the Framework of EU

EU-25 revenues 2004: 586 bil. EUR

- EU15 others: 319 bil. EUR
- EU10 others: 12 bil. EUR
- Czech Republic: 4 bil. EUR
- Poland: 11 bil. EUR
- Portugal: 4 bil. EUR
- Germany: 142 bil. EUR
- France: 94 bil. EUR

EU15 total: 559 bil. EUR
EU10 total: 27 bil. EUR
Position of the Chemical Industry within the Czech Republic

- Food, beverages and tobacco: 12.0%
- Textiles and textile products: 3.7%
- Mining and quarrying: 2.8%
- Chemical industry incl. crude oil processing, rubber and plastics: 12.3%
- Electrical and optical equipment: 13.0%
- Vehicles and transport equipment: 14.9%
- Electricity, gas and water: 8.8%
- Metals and fabricated metal products: 12.2%
- Pulp, paper products, printing and publishing: 3.9%
- Non-metallic mineral products: 5.2%
- Wood and wood products: 1.8%
- Manufacturing n.e.c.: 3.2%
- Machinery and equipment: 6.2%
- Manufacturing n.e.c.: 3.2%
## Chemical Industry of the Czech Republic 2005

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2005</th>
<th>index 05/04 (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chemical industry</td>
</tr>
<tr>
<td>Turnover (current prices)</td>
<td>CZK</td>
<td>349.3</td>
<td>109.7</td>
</tr>
<tr>
<td>Sales (fixed prices)</td>
<td>CZK</td>
<td>347.3</td>
<td>107.4</td>
</tr>
<tr>
<td>Number of employees</td>
<td>thousand</td>
<td>106.2</td>
<td>104.8</td>
</tr>
<tr>
<td>Export</td>
<td>CZK</td>
<td>216.0</td>
<td>111.9</td>
</tr>
<tr>
<td>Import</td>
<td>CZK</td>
<td>332.1</td>
<td>105.2</td>
</tr>
<tr>
<td>Value added</td>
<td>CZK</td>
<td>67.9</td>
<td>103.6</td>
</tr>
<tr>
<td>Pretax earnings</td>
<td>CZK</td>
<td>19.9</td>
<td>91.9</td>
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# Results of the Czech Chemical Industry in 2005

<table>
<thead>
<tr>
<th>Aggregation</th>
<th>Index 2005/2004</th>
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<tbody>
<tr>
<td></td>
<td>Revenues</td>
</tr>
<tr>
<td></td>
<td>Current prices</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude oil processing (232)</td>
<td>116,0</td>
</tr>
<tr>
<td>Chemical and pharm. industry (24)</td>
<td>107,3</td>
</tr>
<tr>
<td>Rubber and plastics industry (25)</td>
<td>110,8</td>
</tr>
<tr>
<td><strong>Chemical industry in total</strong></td>
<td><strong>109,7</strong></td>
</tr>
<tr>
<td>Industry in total</td>
<td>108,0</td>
</tr>
</tbody>
</table>

### Commentary

- Increase of revenues in current prices and of the labour productivity index (with the exception of coating compositions) by 10.4% in total – price increase, or 6.2% – labour productivity
- Increase of number of employees (4 thousand=3.9%, rubber and plastics industry)
- Increase of wages – by 4.1%
- Increase of revenues for rubber products (12.8%), chem.fibres (11.5%), pesticides (11.0%), decrease for coating compositions (-0.5%)
Perspectives of European Chemical Industry

- European chemical industry still expects positive development in majority of all sectors in 2006, i.e., increase of production and prices, however prices of raw materials affect mainly downstream industries!

- Manufacturers' confidence continues to grow despite less favourable development in the 4th Q of 2005. They are even less pessimistic in comparison with non-European competitors. Sales of chemicals increased in 2005 (without pharm. industry) by 8.5% to EUR 456 bil. Sales of basic chemicals grew fastest by 5.6%, specialties by 0.9%. Volume of production increased by 2.4% (comparison 2004: 3.0%), for inorganic by 8%, petrochemicals by 2.3%. Decrease by -1.1% appeared in case of specialties as a result of lower demand and stronger international competition.

- Basic chemicals will follow prices of raw materials, petrochemicals and the sector of polymers can transfer increased prices to customers.

- Other sub sectors will most likely suffer from increasing prices of energy and will not be able to keep the price increase. At the end of 2005 prices of chemicals were higher by almost 6% in comparison with 2004. The highest increase was in case of petrochemicals – 11.4% and polymers – 8%, however consumption chemicals noted only 1% increase.
General Perspectives

• The Horizon 2015 Scenario (Cefic analysis) – takes into account EU 15 only

• Various variants: „sunny-cloudy-rain-storm“

• Possible solutions:
  * Vision of chemical industry development
  * Modern technologies, innovation, new product generations
  * Environmental effectiveness and improved reputation
  * Less regulations and more investments into R&D
  * Interconnection of chemistry and the 7th FP through NTP
  * Investment into chemistry educational system

• Will be the chemical industry maintained in Europe?
REACH and its Impacts

All substances will have to pass through one or more stages of the REACH process (Registration, Evaluation, Authorisation, Restriction of Chemicals)

Number of tested substances (within next 11 years):
- CR: approx. 1 000
- EU: approx. 30 000

Cost in CR – chemical industry only:
- direct: approx. 7-11 bil. CZK
- indirect: up to ten times higher

Other costs: Downstream industries (paper, textile, automotive, electrotechnical, etc.)

Most significant impacts of REACH:
- Producers of chemical specialities
- Micro, small and medium enterprises
Technologically advanced chemistry for the 21st Century building on 150 years of tradition.

Spolchemie have always been pioneers in Chemistry and were one of the world’s first major chemical producers.

We have always shown leadership and direction, making a path for others to follow.
Where We Are

Germany

Poland

Austria

Slovakia

Czech Republic
We keep our fingers on the heartbeat of the world of chemical production. More than 90% of Spolchemie production is directed abroad.

**Resins**
**Inorganics**
**Specialties**

Leading European player in the area of resins
Modern Production with 150-Year Long Tradition

History

1856
Company is founded in Vienna

1880
after merger with Solvay, Spolchemie becomes the strongest player in Europe

1940
creation of the holding structure with more than 30 Czech chemistry enterprises

1945
nationalization of the company

1997
search for the strategic partner begins

2005
Via Chem Group, a.s. becomes the strategic partner of the company
Present and Future

2005
Episol – latest technology for the production of low molecular resin

2006
Latest technology for the production of unsaturated polyester resins

2006
Start of the 2nd phase of the construction of Episol II production facility

2007
Start up of a new capacity ECH glycerine based

2011
Conversion of chlorine production into modern membrane technology
Owners of the Company –
Strong Company with the Strong Partner

Registered share capital 1 939 408 000 CZK

Via Chem Group 67%
Českomoravská investiční 12%
Small shareholders 25%
People of Spolchemie

Management of Spolchemie – that means prime quality Czech and international experts in the field

Ing. Martin Procházka, Czech Republic – General Manager and Chairman of the Board „Spolchemie aspires to become one of the biggest players in the area of the world inorganic chemistry. “

Paul Yianni, Great Britain – Manager Resins“Brand new production facilities coupled with many years of experience will prove to be a winning combination for Spolek and our customers. “

Michael Grosske, Germany – Manager Inorganics„We place emphasis on working together with our customers in a partnership. Reliability of our production enables us to concentrate fully on their needs. “
2007: Sales 4,338 mil. CZK
Profit 220 mil. CZK

- Resins: 64%
- Inorganics: 29%
- Specialties: 7%
Epoxy resins

Epoxy resins and hardeners are traditional products of Spolchemie. Liquid epoxy resin is the core product. The main segment of application is represented by powder and anticorrosive coatings; however, our epoxy resins find use in many areas starting with the production of composites for electrical industry to sport equipment and composites for wind power plants.

c coating compositions, sport equipment, electronics, cars, household appliances, construction applications

Unsaturated polyesters (for Reichhold)
Hardeners
Alkyd resins
Rosin based resins
Epoxy systems for composites, special adhesives and electronic
For many years Spolchemie has been in the business of producing chlorine compounds without which life is unimaginable today.

**Potassium Hydroxide**  
**Sodium Hydroxide**

washing powders, detergents, fertilizers, production of paper and cellulose, breweries, dairies, sugar factories, fat manufacture, pharmaceutics

**Sodium Hypochlorite**, **Hydrochloric Acid**  
**Epichlorohydrine**, **Allylchloride**, **Perchloroethylene**
Products of Spolchemie - Specialties

Synthetic Sapphire
optic equipment, photo cameras, wrist watches

Calcium Sulphate
floor leveling, plasterboard systems, cements and mortar

Hydrofluoric Acid
Sodium Fluoride
Potassium Permanganate
Spolchemie is minimizing the impact of its production on the environment through the implementation of the latest production technologies.

*Within the investments in the amount of millions of Euros the best available technologies are applied and the latest safety features were installed in the plants which prevent the leakage of chemicals into the environment.*

An integrated safety system is monitoring production and informs the rescue system and local authorities as well as citizens themselves about every important occurrence behind the plant gates.
Spolchemie follows the principles of the voluntary international “Responsible Care” program, designed for the area of chemistry. In accordance with the international principles the company has certifications for the quality and environment protection management systems.
Mission and Strategy

- Becoming a key player in the field of synthetic resins
- Form alliances with foreign strategic partners – access to top technology
- Product rationalization – focus on key products
- Set up a superior sales and marketing structure
- Investment in key segments and environmental protection
- Continual improvement of safety, security and reliability of processes