



European Commission

Screening of Enterprise and Industry Policy

Chemical Industry

with a focus on its competitiveness

Meeting of 27/28 March 2006

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Enterprise and Industry DG

Chemicals Unit



Outline

1. Main features of the EU chemical industry

2. Main drivers for the competitiveness of the chemical industry

- ◆ Market trends – demand side
- ◆ Energy and feedstock prices
- ◆ Knowledge – r&d, innovation and education
- ◆ Regulation – Health, safety and the environment
- ◆ External Competitiveness
- ◆ Infrastructure and regional aspects

3. Policy responses

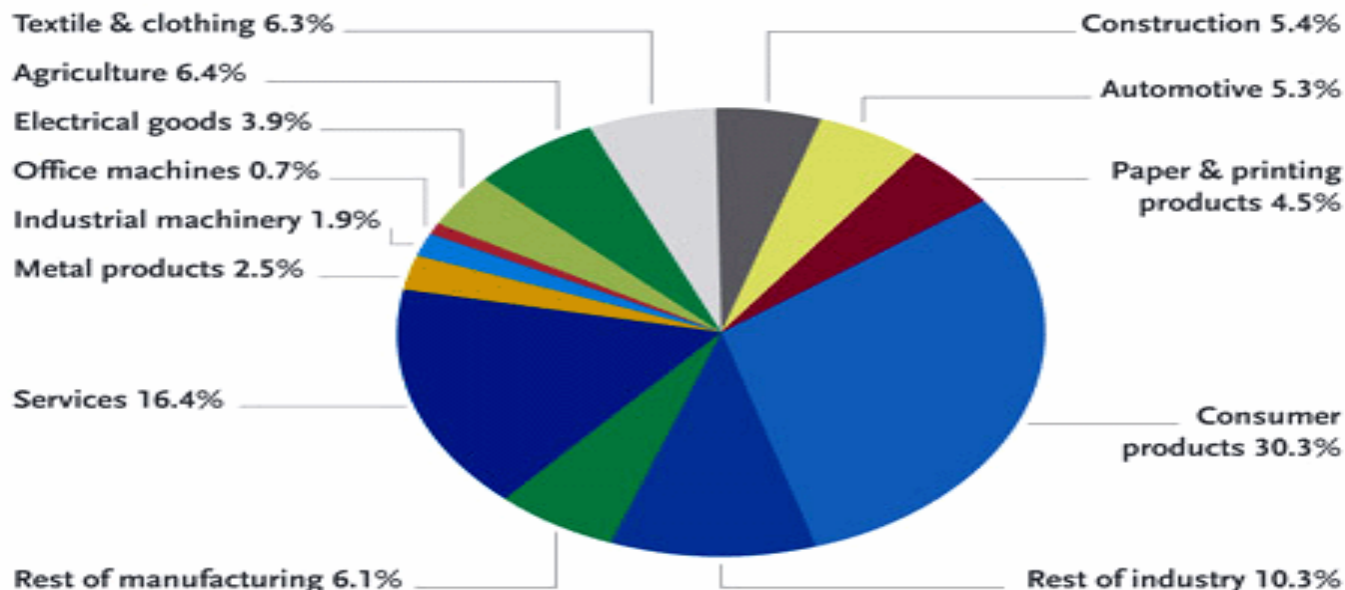
- ◆ High Level Group on Competitiveness
- ◆ Technology Platform on Sustainable Chemistry

Important Background Documents

- ◆ Implementing the Community Lisbon Programme: A policy framework to strengthen EU manufacturing – towards a more integrated approach for industrial policy
Sectoral analysis of the chemical, plastic and rubber sector
- ◆ CEFIC: Facts and figures
<http://www.cefic.org/factsandfigures/>
- ◆ Horizon 2015: Perspectives for the European Chemical Industry (executive summary available on CEFIC website: www.cefic.org)

EU chemical industry consumption structure

% of chemical domestic consumption



Sources: Cefic & Eurostat

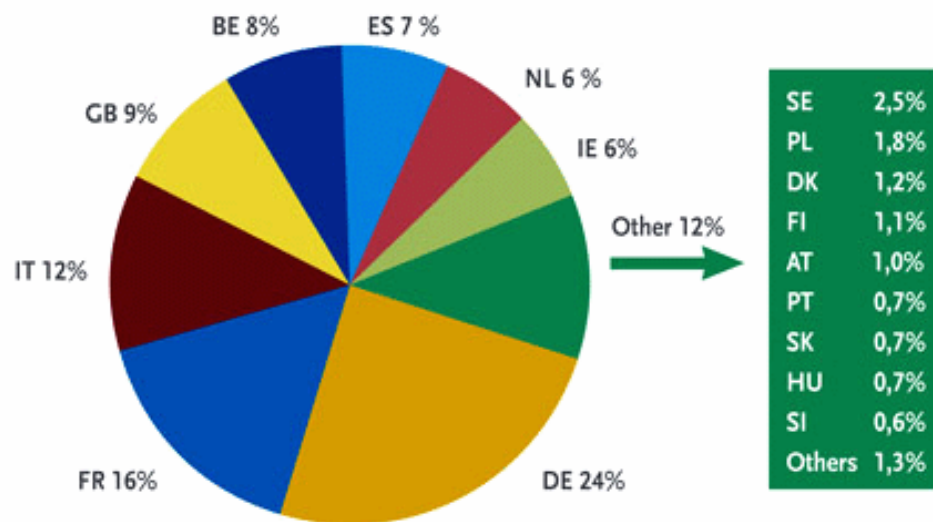
Notes: Percentage shares are calculated by taking into account the re-allocation of domestic consumption to downstream customers of chemicals self-consumption & consumption by the rubber & plastic processing industries

* EU 15

Geographic breakdown of EU chemical industry sales

Sales 2004: € 586 billion

Percentage shares

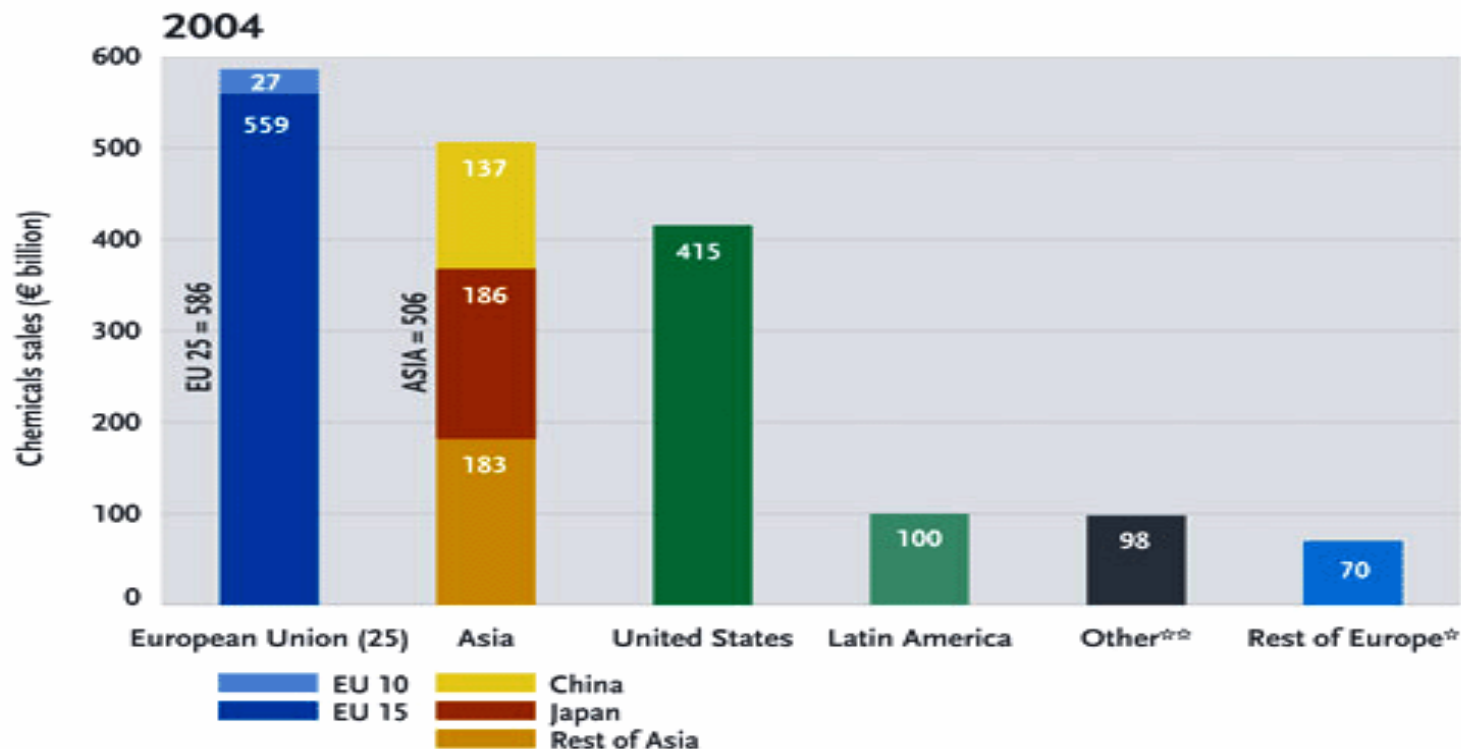


Source: Cefic

Notes: Big 8: Germany, France, Italy, UK, Belgium, Spain, Netherlands and Ireland.

This is based on NACE 24. Only France and Denmark exclude man-made fibers.

Geographic breakdown of world chemical sales



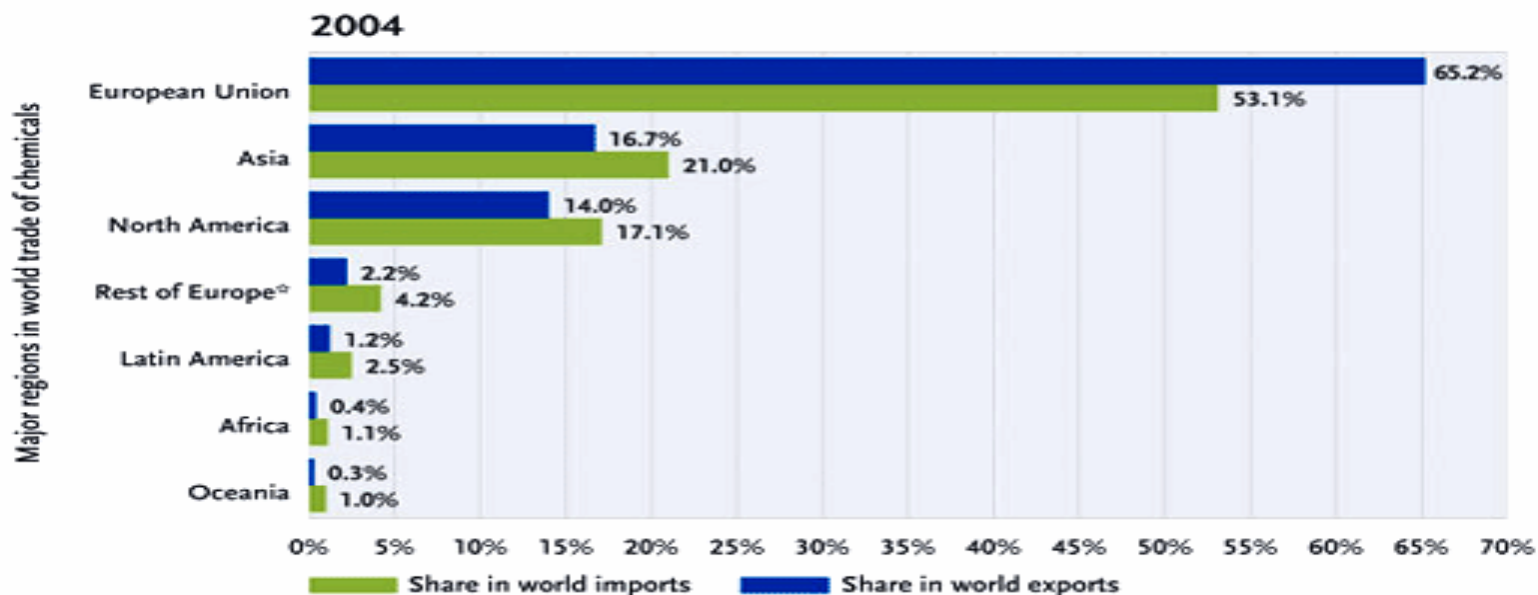
World chemicals sales in 2004 is estimated at € 1776 billion
 The EU accounts for 33% of the total

Sources: ACC & Cefic

Definition: Rest of Europe* = Switzerland, Norway, and other Central & Eastern Europe (excluding the new EU 10 countries)

Other** including Canada, Mexico, Africa & Oceania

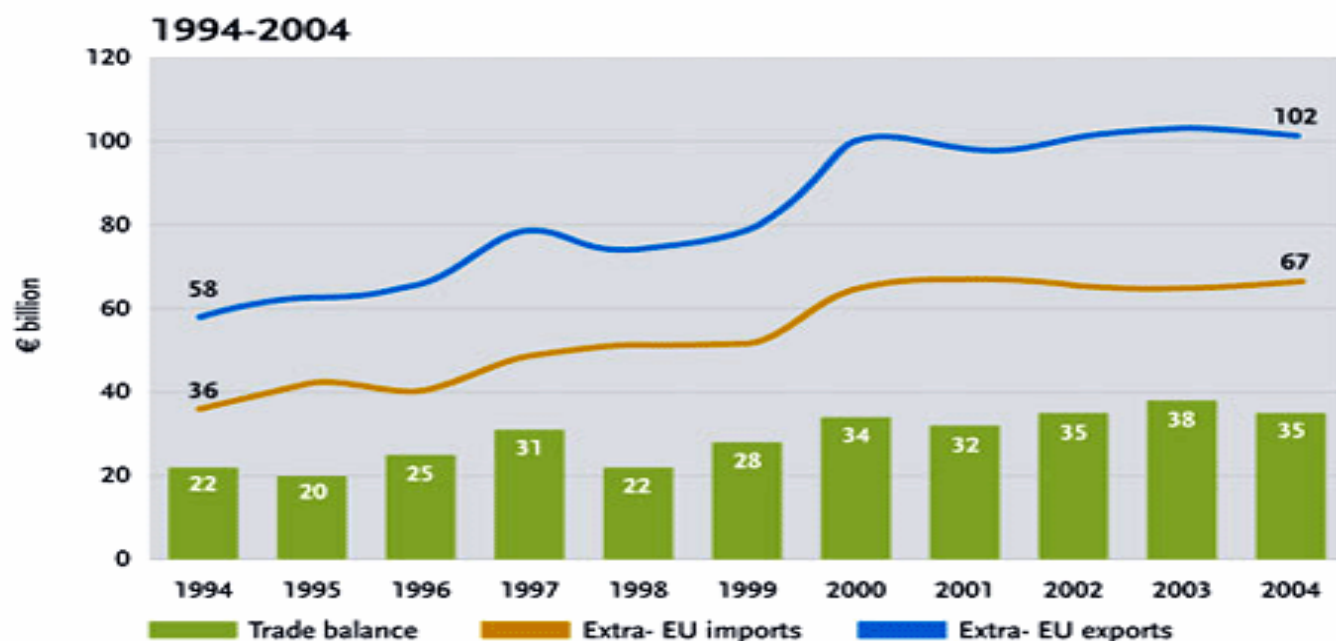
Regional shares in world trade in chemicals



Source: Cefic

Definition: Rest of Europe^o = Switzerland, Norway, and Central & Eastern Europe (excluding new EU 10 countries)

EU chemicals trade balance



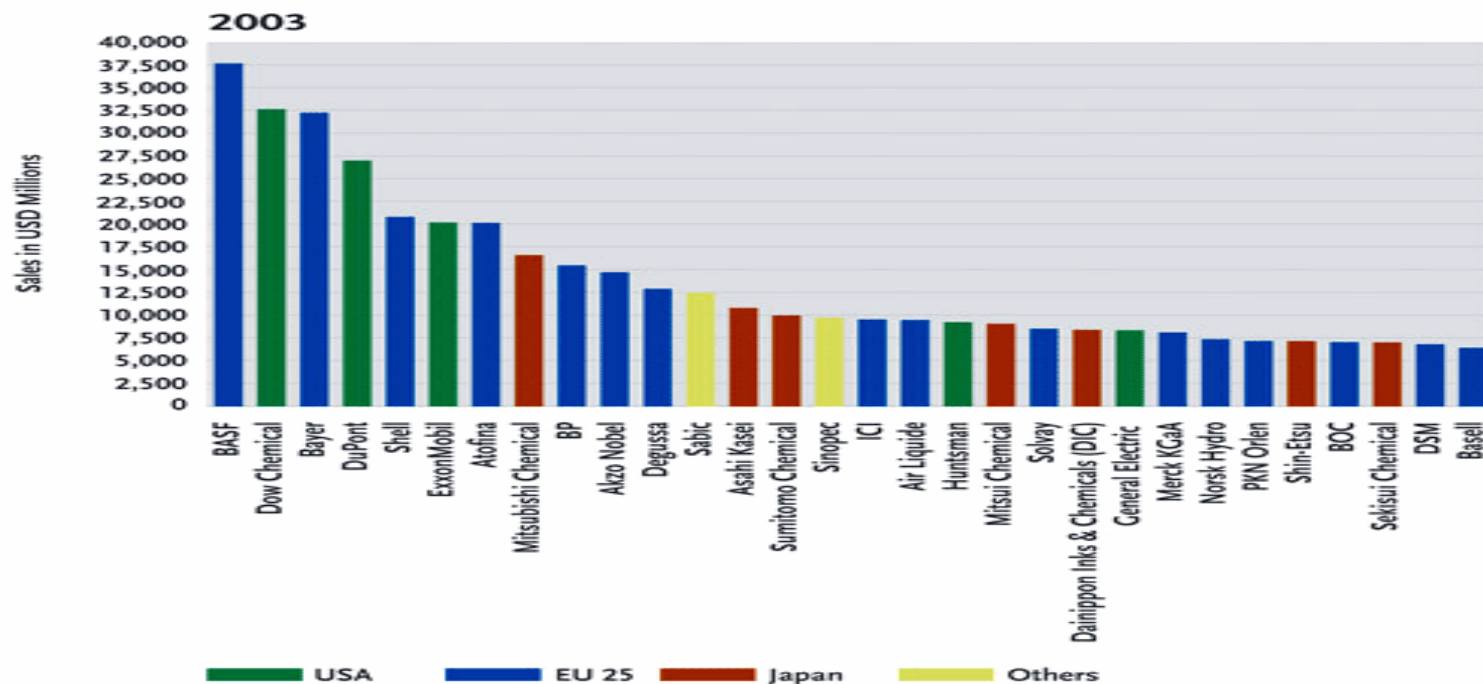
Source: Cefic

* EU 15, excluding pharmaceuticals

** Intra-EU trade excluded

In bn euro	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Exports	58	62	66	80	73	79	100	99	101	103	102
Imports	36	42	41	49	52	52	65	67	66	65	67
Balance	22	20	25	31	22	28	34	32	35	38	35

30 top chemical companies in the world



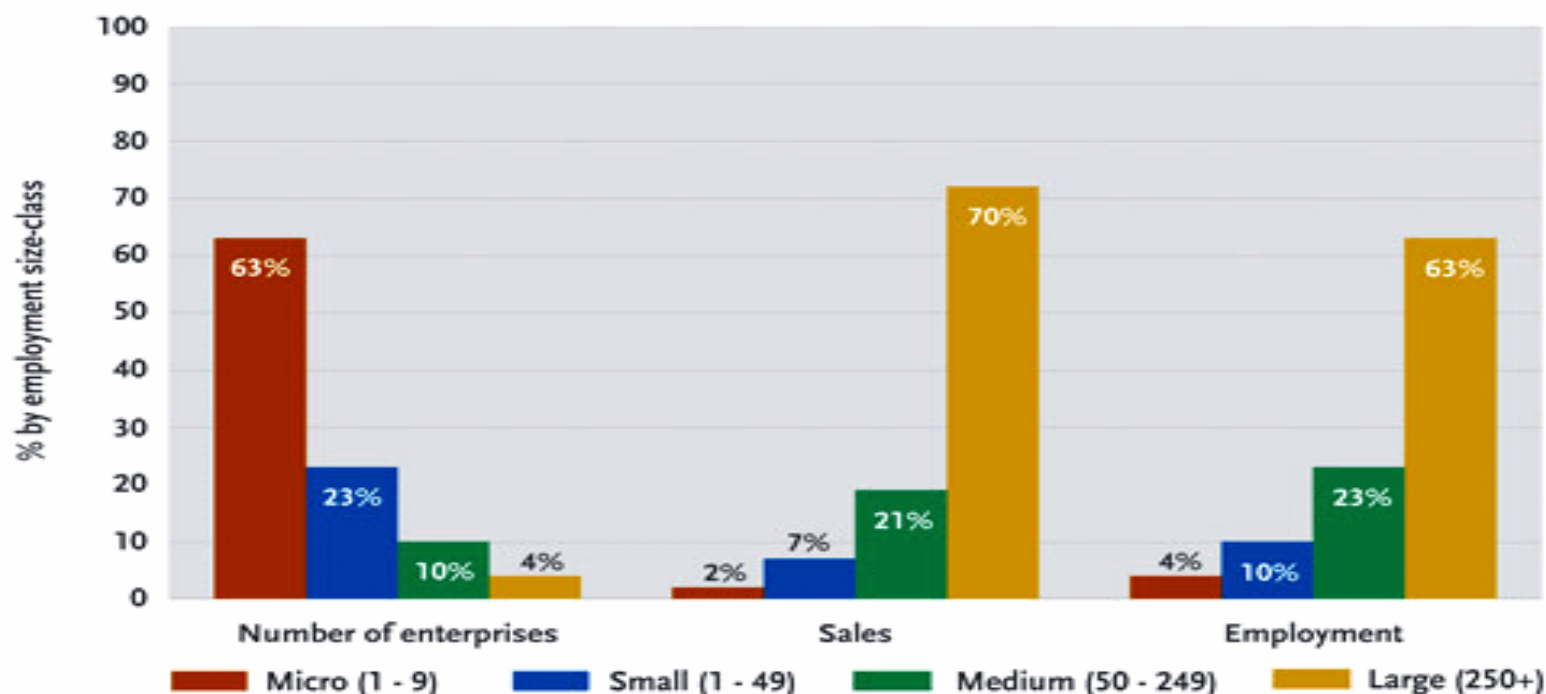
In 2003, 16 of the 30 world chemicals majors* have their headquarters in the EU 25 - representing a significant part of the world chemical sales

Sources: Cefic & Chemical Insights

* List of 30 top chemical companies reproduced with the kind permission of Reed Business Publishing - Chemical Insight, but adjusted by using average rather than year end exchange rates

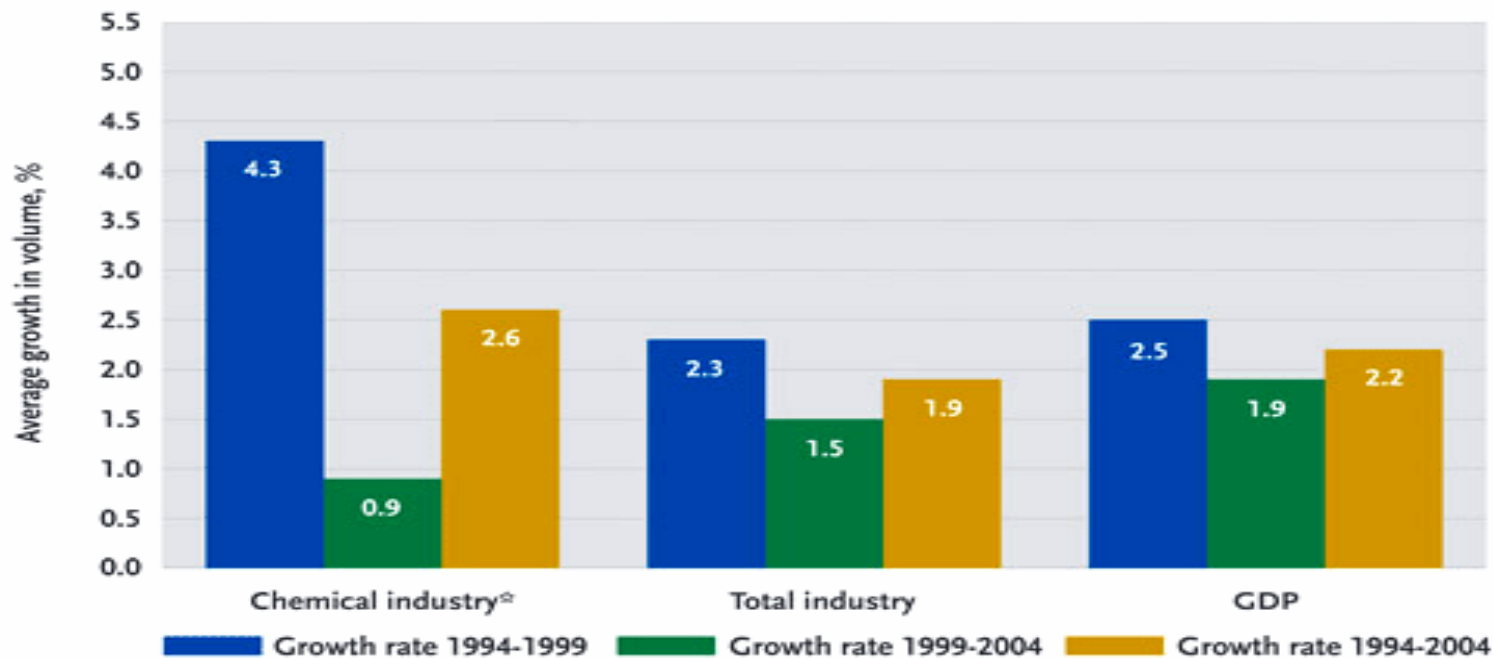
* Excluding pharmaceuticals

Number of enterprises & sales by employment size-class



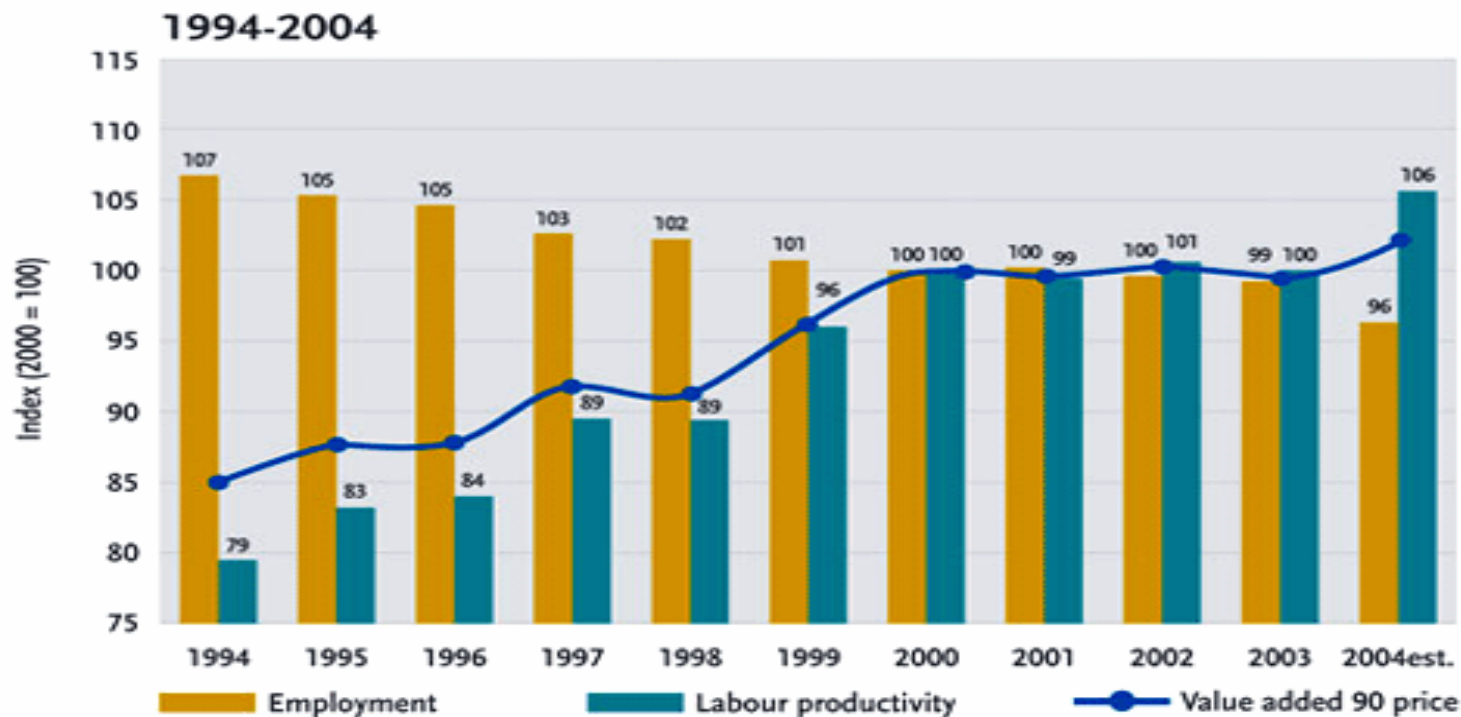
Sources: Cefic and Eurostat
* Excluding pharmaceuticals

Growth of EU chemical production, total industry and GDP



Sources: Cefic and Eurostat
* Excluding pharmaceuticals

Labour productivity in the EU chemicals industry



Sources: Cefic & OECD
* EU15

Main drivers for the competitiveness of the chemical industry

Market trends – demand side

- ◆ Demographic factors:
Absence of population growth limits growth in consumer chemicals
- ◆ Migration of user industries like textiles and shoes
- ◆ Stable if not shrinking demand for agrochemicals
- ◆ However, more positive developments for innovative products
(eg catalysts, nanomaterials)

Main drivers for the competitiveness of the chemicals industry

Energy and feedstock prices

- Europe more and more dependent on energy imports, a continent of expensive energy
- Investments to produce base chemicals move more and more to the Middle East
- High oil and gas prices may provoke important structural change in the chemical industry on a global level

Main drivers for the competitiveness of the chemicals industry

Knowledge – r&d, innovation and education

- r&d spending is lower in Europe (1.9 % of sales) than in the US (2.4 %) and in Japan (2.7%)
- Lower number of new substances registered in Europe than in the US
- Low member of students in chemistry and process engineering in Europe

Main drivers for the competitiveness of the chemicals industry

Regulation on health, safety and the environment

- Differences of regulatory cost as a factor influencing the competitiveness
- Energy efficiency as measures to reduce the impact on global warming
- Emission control and restriction of the marketing and use of the most dangerous chemicals
- The strive for a cost-effective REACH-system

Main drivers for the competitiveness of the chemicals industry

External competitiveness

- the role of technical barriers to trade
Differences in chemical regulation is an increasing factor of trade dispute
- high number of anti dumping cases

Regional problems

- deficiencies in infrastructure (pipelines) and problematic locations as a challenge for regional development policy

Policy responses

- ◆ High level group on the competitiveness of the chemical industry
 - preparation has started
 - launch foreseen in 1st semester 2007
 - challenge: definition of a sectoral policy for the chemical sector
- ◆ Technology Platform “Sustainable Chemistry”
 - Adapt research and development to market needs
 - focus on emerging technology (nanotechnology, biotechnology)