CWC and industry: 10 years on and beyond

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International Council of Chemical Associations (ICCA)

1. North American Council of Chemical Associations

USA, Mexico, Canada

2. South America

Brazil, Argentina, Uruguay, Chile

3. Japan

4. Australasia

Australia, New Zealand

5. South Africa

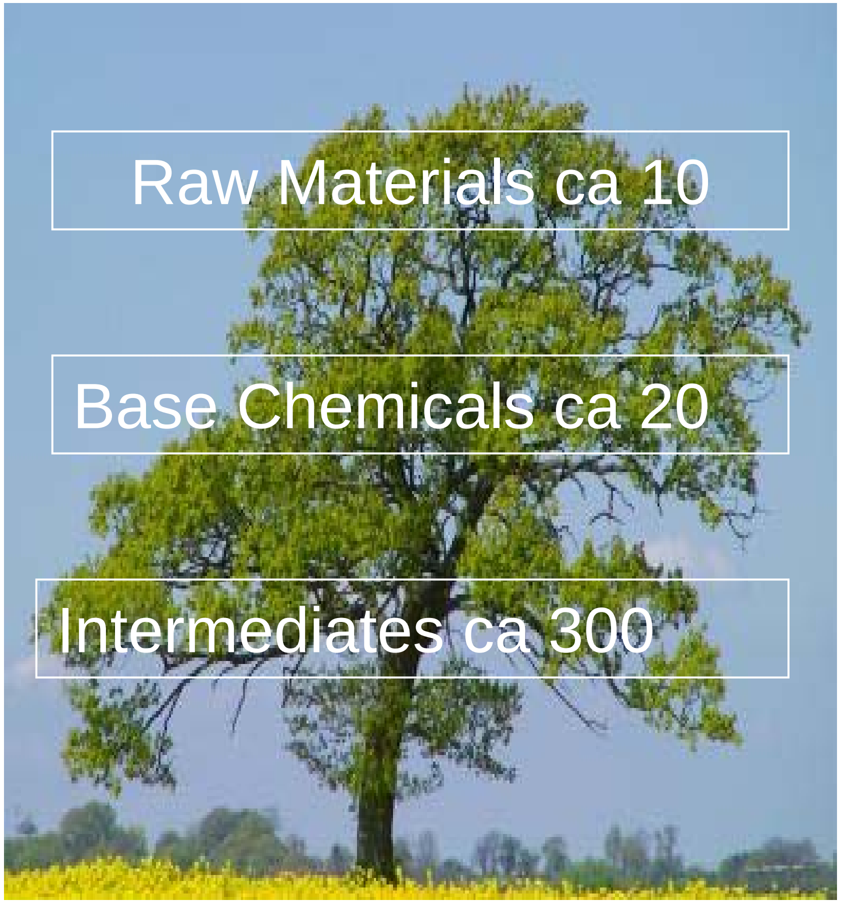
6. Europe (CEFIC)

(26 European Countries) homepage: www.icca-chem.org

European Chemical Industry Council (Cefic)

- about 28,000 small, medium and big chemical companies in Europe
- about 1.2 million employees
- about 30% of worldwide chemical production
- headquarters of Cefic is Brussels
- homepage: www.cefic.be

The Chemical industry: Adding value to natural raw materials



Consumer products ca 30,000

Oil, gas, biomass, rock, salt, air, water, sulphur, sand

Ethylene, propylene, chlorine, methanol, ammonia, benzene, sulphuric acid, caustic

Acetic acid, ethylene oxide, phenol, terephthalic acid, acrylonitrile

Plastics, detergents, solvents, fibres, pharmaceuticals, insecticides, dyes

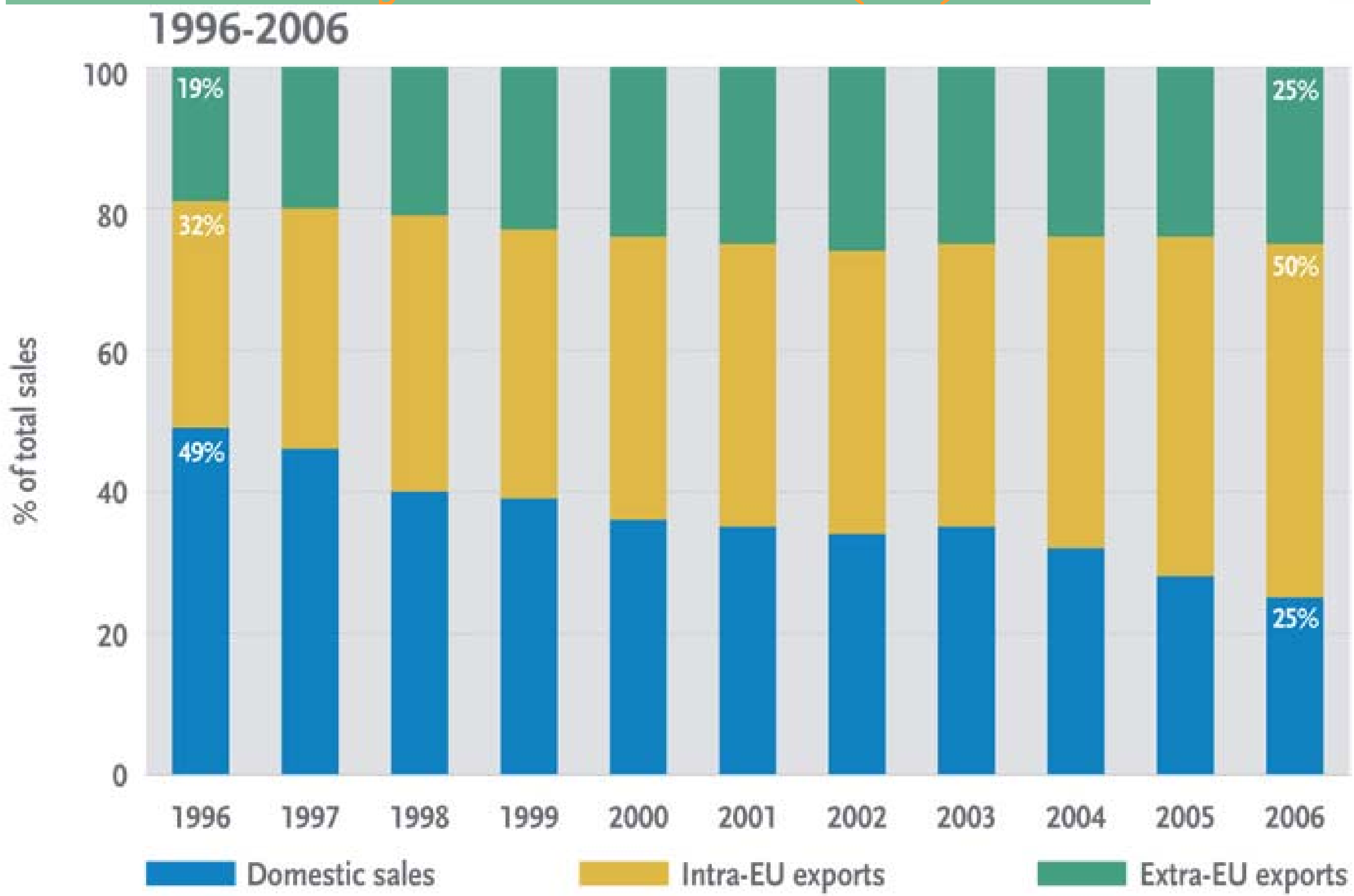
Coverage of chemicals sector

Industrial gases	Pharmaceuticals
Dyes & pigments	Detergents and surfactants
Basic inorganic chemicals	Explosives
Bulk organic chemicals	Adhesives & sealants
Semi-bulk or intermediate chemicals	Aromas & flavourings
Polymers (plastics & rubber)	Photographic chemicals
Resins	Leather chemicals
Agrochemicals	Lubricating oil additives
Paints, coatings, inks	Catalysts
Water treatment	Silicones
Fire retardants	Biocides
Oilfield chemicals	Synthetic fibres
Packaging films and tapes	Performance chemicals

Responsible Care®

Responsible Care promotes co-operation with governments and organisations in the development and implementation of effective regulations and standards, and helps companies meet or exceed these requirements.

EU chemical industry sales structure by destination (%)

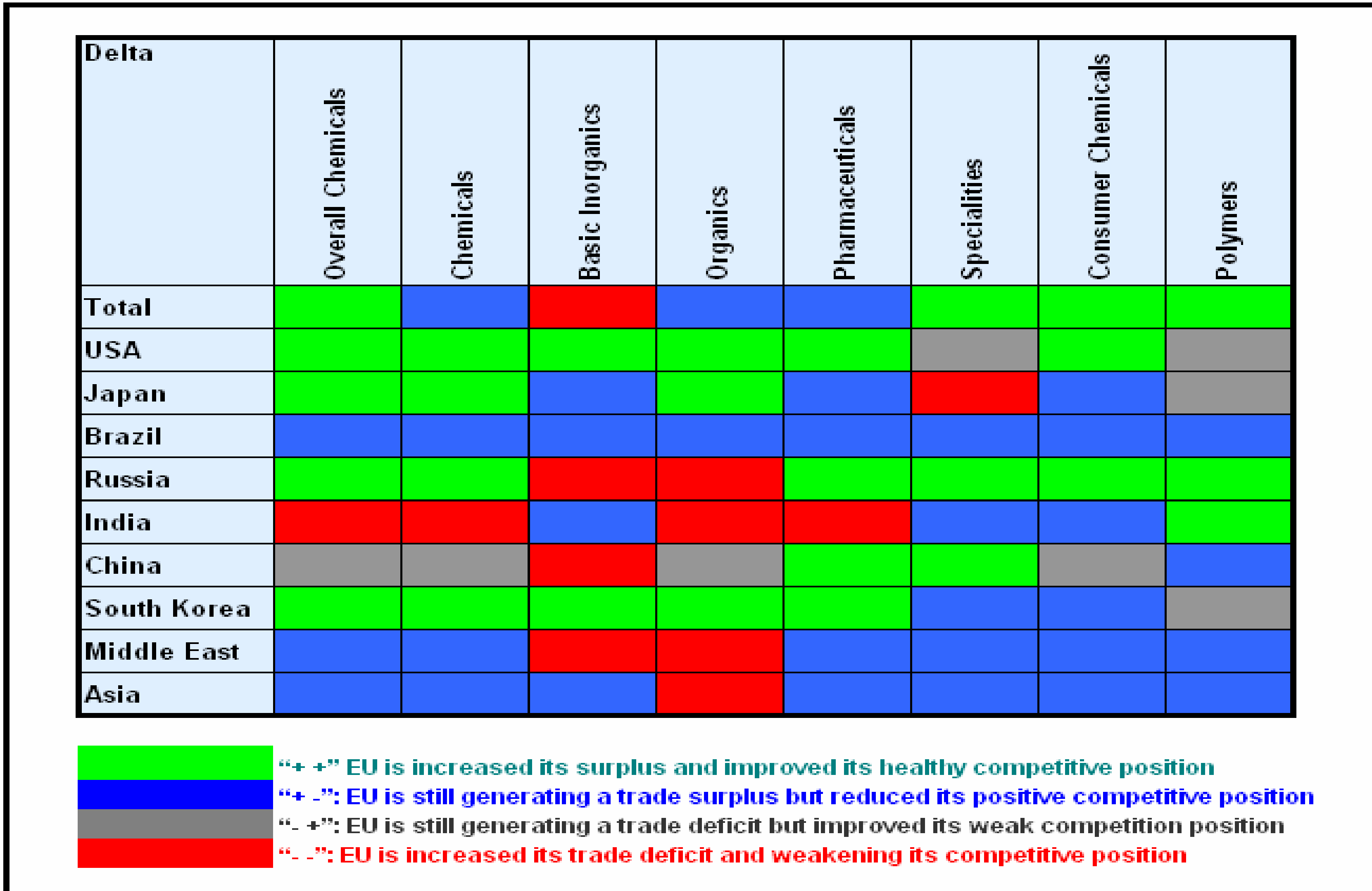


Sources: Cefic Chemdata International and Eurostat

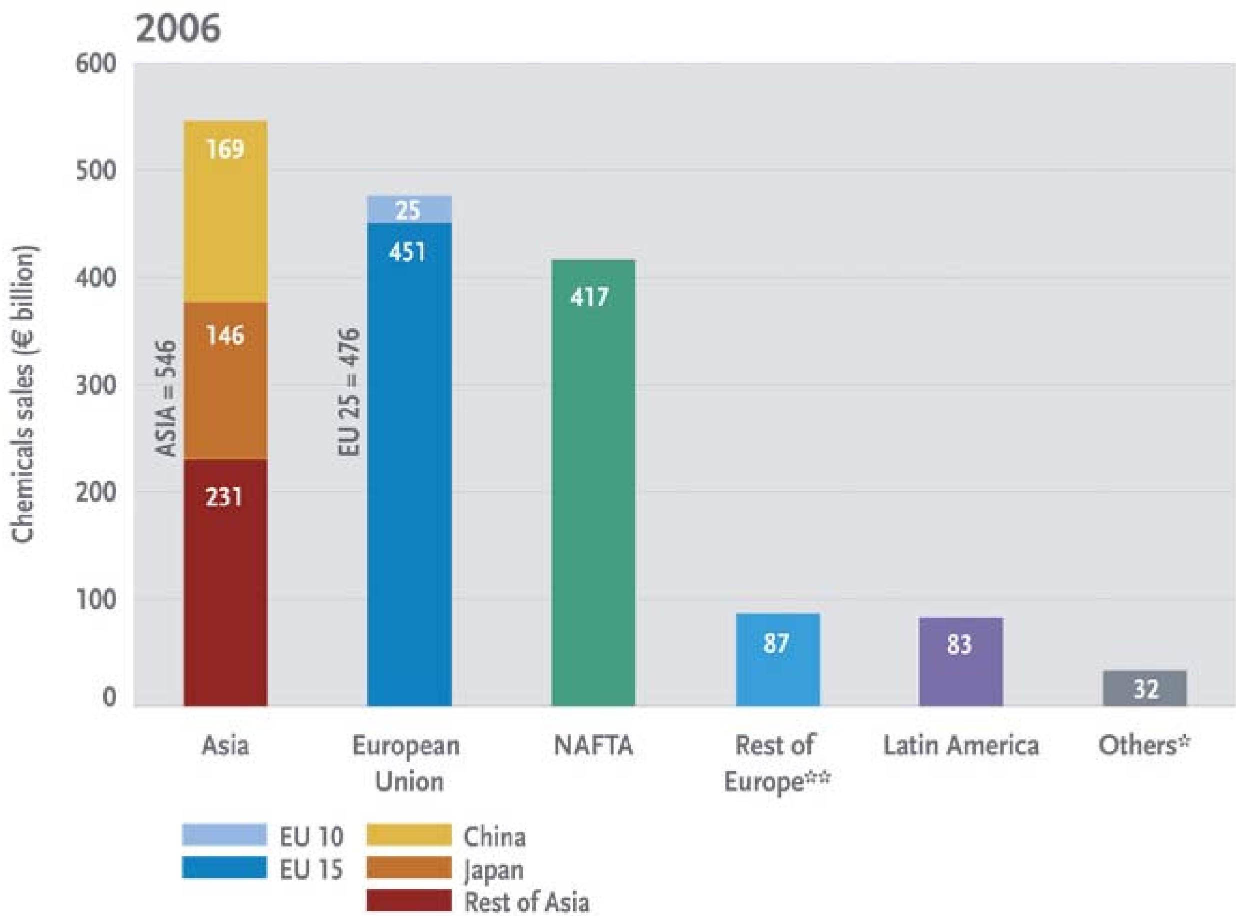
Trade Competitiveness Analysis: Change in trade surplus and competitive advantage

Trade = Exports + imports
Balance = Exports - Imports
TCI: Trade Competitiveness Indicator
= Balance/ Trade

Period 1: average (1997-2002)
Period 2: average (2002-2007)
Delta Analysis = TCI 2-TCI 1



World chemicals sales



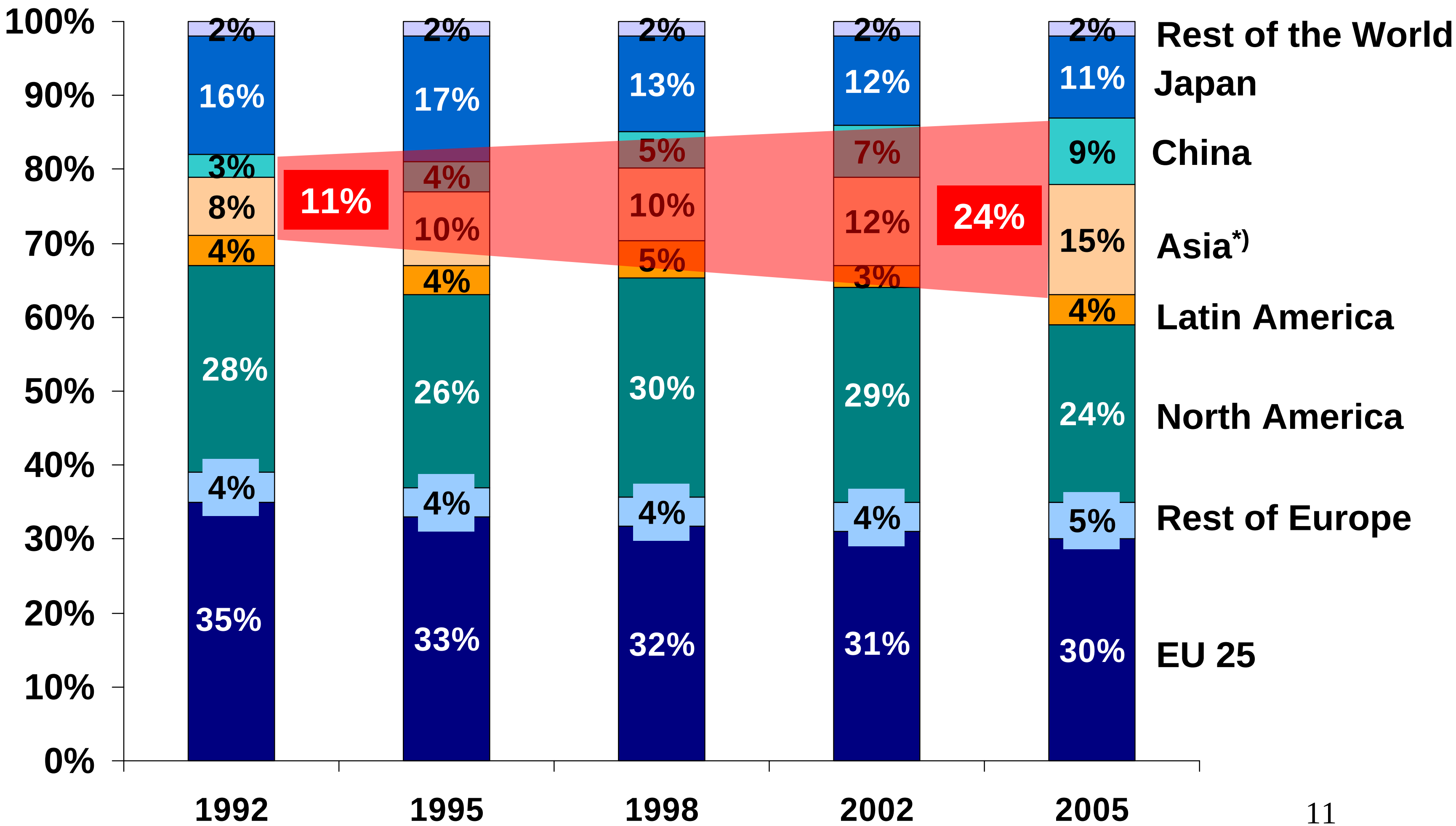
World chemicals sales in 2006 are estimated at € 1641 billion
The EU accounts for 29% of the total

Source: Cefic Chemdata International
Others* = Oceania and Africa
Rest of Europe** = Switzerland, Norway and other Central & Eastern Europe (excluding the new EU 10 countries)

Market Trends - Globalisation

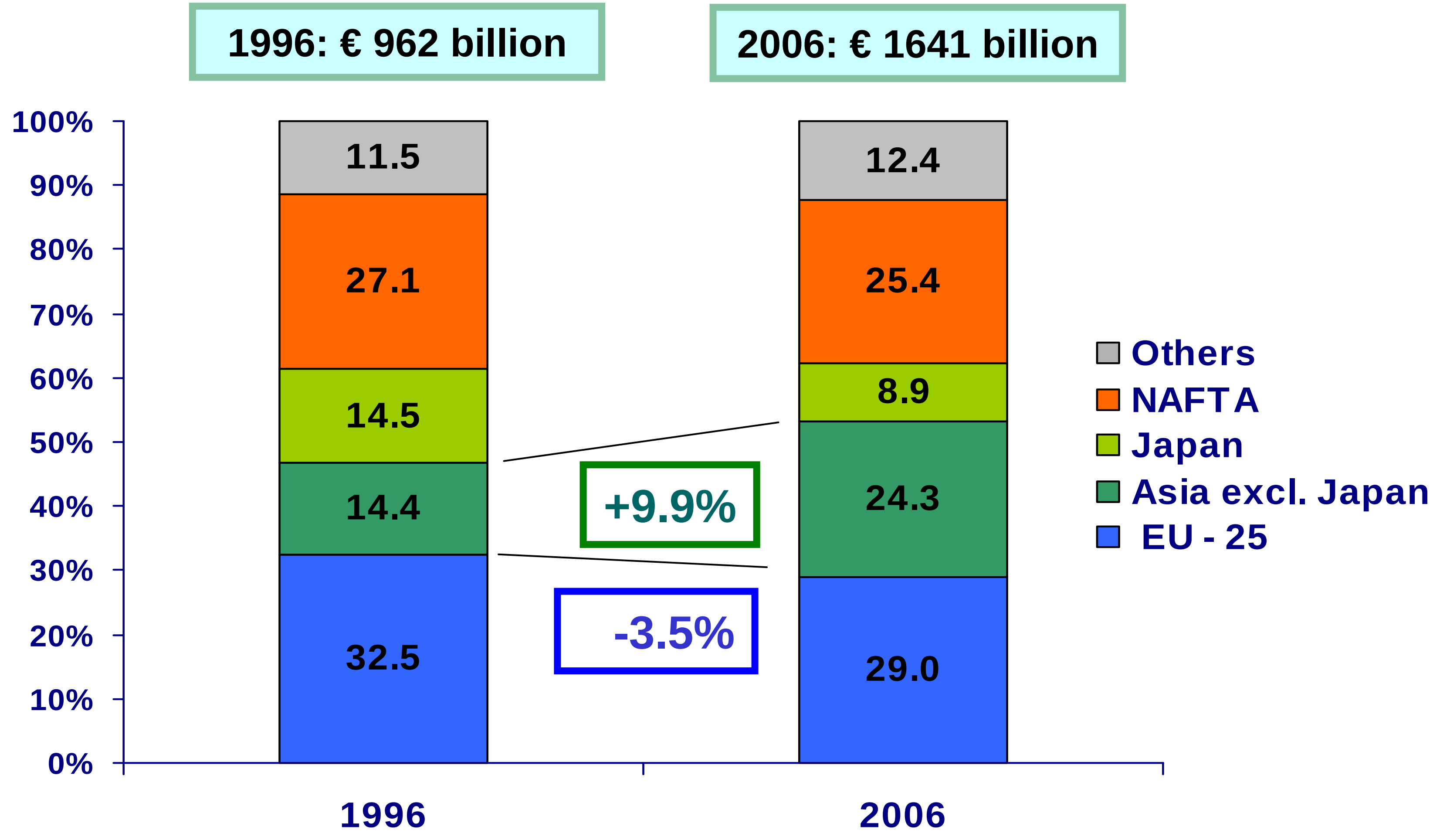
- “World-scale” plants
- High degree of standardisation
- Increase in trade volume
- Production in non-traditional countries
- Sourcing, production and trade is global
- More specialist production in the most economically developed countries

New chemicals producing regions emerging (excluding pharmaceuticals)



*) Asia excluding Japan and China Source: Cefic, ACC, VCI and Global Insight

Regional shares in world chemical production*



Data Source: Cefic Chemdata International

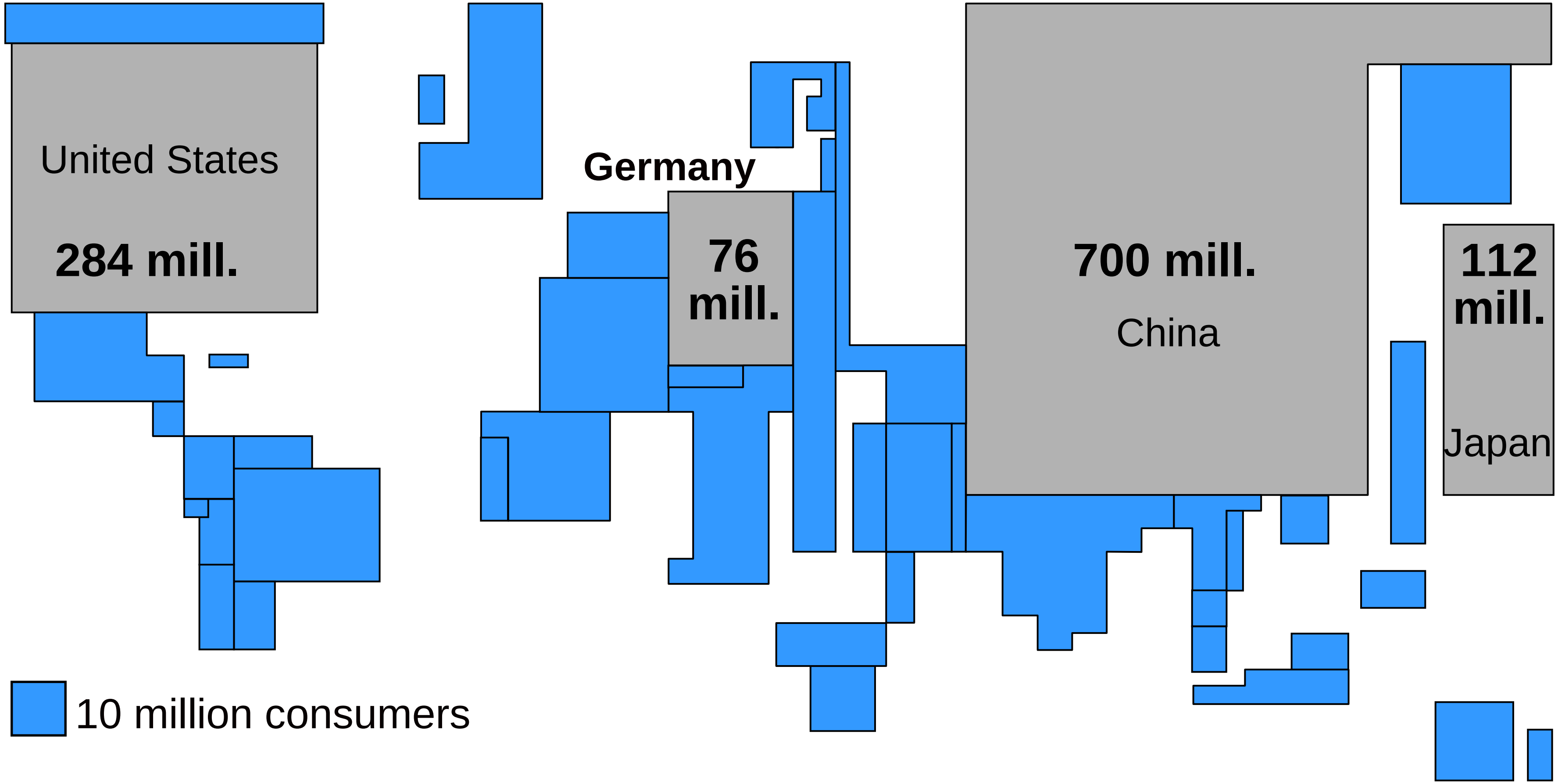
*excluding pharmaceuticals

Change in Share of World Chemicals Exports

	1990	**2005**
Developed countries' share of world chemical exports	83.5%	75%
Developing countries' share of world chemical exports	16.5%	25%
World chemical exports (billions)	**$308.8**	**$570.2**

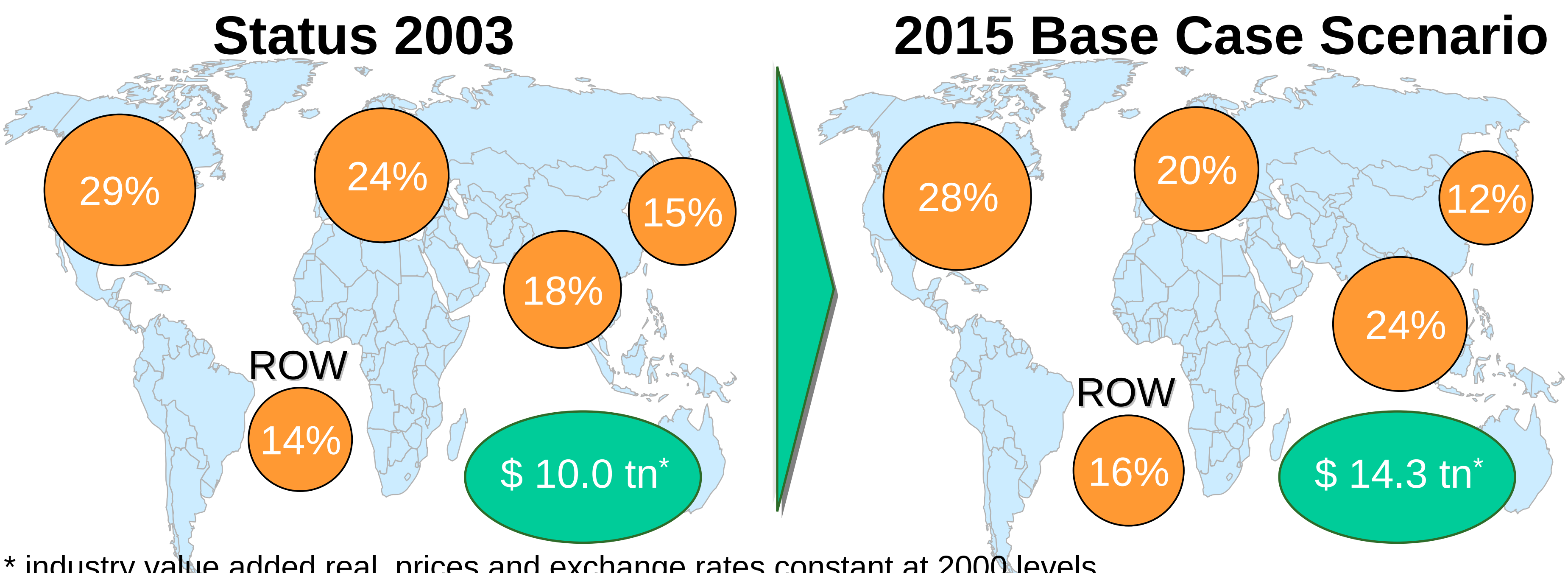
Consumer spending will shift to emerging markets

2015: Total = 2.02 billion consumers (29 % world population)



Source: World Bank, EIU, US Census Bureau

Migration of Western industry production to emerging countries



* industry value added real, prices and exchange rates constant at 2000 levels

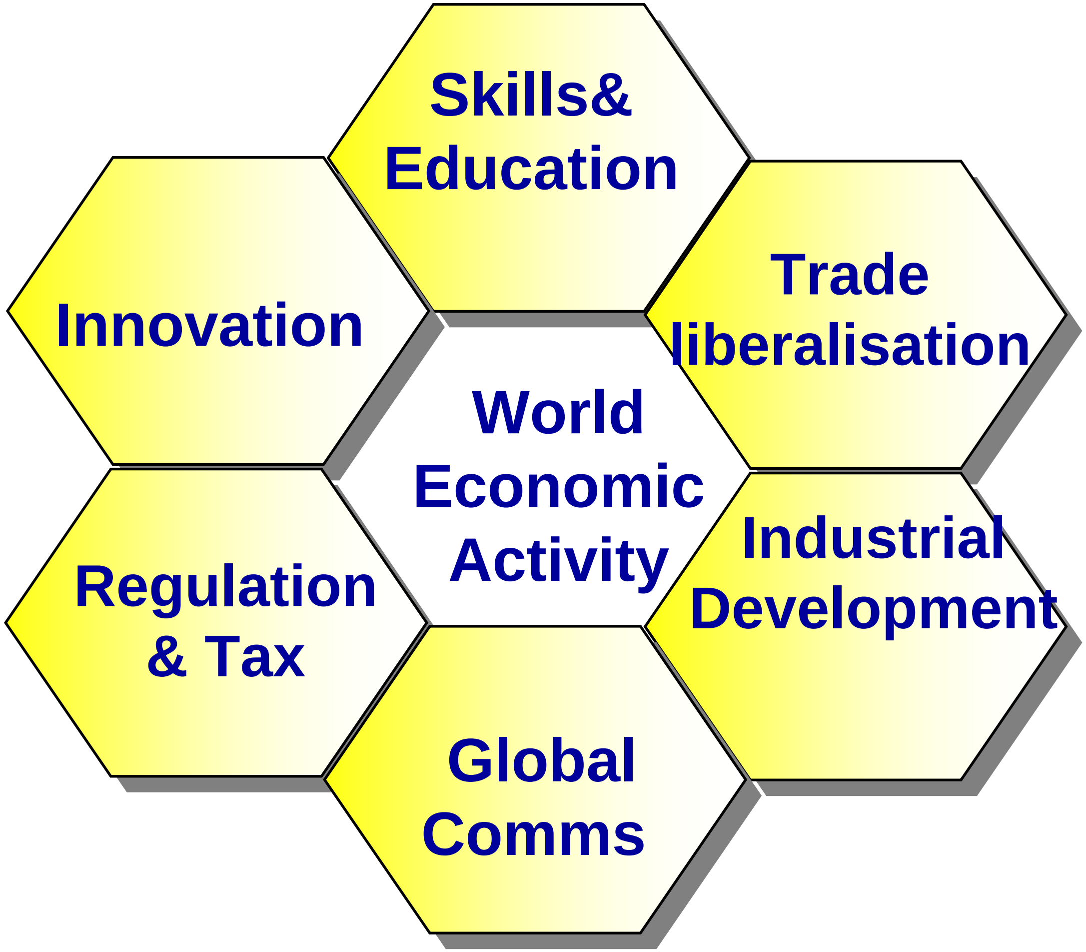
Shift from developed countries to emerging countries

- **From Western Europe to Eastern Europe and/or to Asia (especially China)**
- **From USA to Asia (especially China)**

Major driving forces: Labour costs and market growth in emerging countries

Source: BASF

Key factors affecting the pace of globalisation



Consequences of globalisation for CWC and Dual-use items control

- Chemical industry production and trade outside traditional chemical producing areas is increasing
- Addition of mass chemicals to export control lists is useless if no such control is applied on other key producing countries
- Better implementation of the CWC and achieving of key purpose and object remain essential before stepping up control of control on industry (e.g. introduction of sampling & analysis)
- Global trade makes compliance with differing mixtures rules problematic for industry

Balanced trade controls

- Chemical industry subject to many trade and production control regimes (Chemical Weapons Convention, Australia Group, drug precursors, Montreal Protocol, Dual Use/UN Resolution 1540)
- ICCA agrees with controls - provided these are instrumental and proportionate to the objectives pursued
- Work with national authorities when dealing with suspicious enquiries
- ICCA strongly stresses the need for minimal trade restrictions on a global level playing field

SAICM

- Strategic Approach to International Chemicals Management

- http://www.chem.unep.ch/saicm/

Extending industry compliance

- OPCW handbook for industry
- Introduce e-Learning tools for industry

Summary

- The worldwide chemical industry fully supports the goals and objectives of governments with regard to the Chemical Weapons Convention and the non-proliferation of WMD and wants to be a partner for implementation of trade & production control regimes
- In new chemical producing regions national controls companies may not be aware of their CWC responsibilities and may lack internal compliance programmes and standards that are applied in regions with an established chemicals industry
- Chemical federations play a supporting role in promoting good practice through programmes such as Responsible Care, Voluntary Codes of Conduct, Memoranda of Understanding, etc.
- But OPCW can help through e-Learning tools and handbook