Strategie der EU für intelligentes, nachhaltiges und integratives Wachstum im Bereich der Chemikalienpolitik

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European Commission
Enterprise and Industry

Overview

- Overall Industrial Policy: Europe 2020, in particular three of seven flagship initiatives:
  - Innovation Union
  - Resource Efficient Europe
  - Industrial Policy
- High level Group on the Competitiveness of the European Chemicals Industry
- REACH
- Reality Check

Europe 2020: A strategy for smart, sustainable and inclusive growth

Three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

Europe 2020: 7 flagship initiatives

- **Innovation Union:** ensure that innovative ideas can be turned into products and services
- **Youth on the move:** enhance performance of education systems and facilitate labour market entry
- **A digital agenda for Europe:** speed up the availability of high-speed internet and digital single market
- **Resource efficient Europe:** decouple economic growth from the use of resources, low carbon economy
- **An industrial policy for the globalisation era:** improve the business environment, notable for SMEs, to compete globally.
- **An agenda for new skills and jobs**: modernise labour markets and empower people by developing skills
- **European platform against poverty:** ensure social and territorial cohesion and that the benefits of growth and jobs are widely shared

Flagship Initiative: "Innovation Union"

- Re-focus R&D and innovation policy on the challenges facing our society, such as climate change, energy and resource efficiency, health and demographic change

- Strengthen every link in the innovation chain, from research to commercialisation

Flagship Initiative: "Innovation Union"

- Complete the European Research Ares and develop a strategic research agenda;
- Improve framework conditions for business to innovate (E.G. access to finance, single EU Patent and specialised Patent Court, copyright and trademarks);
- 'European Innovation Partnerships' between the EU and national levels. The first will include:
  - Active and healthy Ageing: technologies to allow older people to live independently and be active in society
  - Smart cities: tackling energy use and climate change
  - Sustainable supply of non-energy raw materials
  - Water efficient Europe: reducing the 'water footprint'
  - Smart mobility: intelligent transport systems

Flagship Initiative: "Resource efficient Europe"

- Support the shift towards a resource efficient and low-carbon economy that is efficient in the way it uses all resources
- Decouple economic growth from resource and energy use
- Reduce CO_2 emissions
- Enhance competitiveness
- Promote greater energy security

Flagship Initiative: "An industrial policy for the globalisation era"

- Maintain and develop a strong, competitive and diversified industrial base in Europe :
- Develop the single market and smart regulation
- Improving infrastructures
- Strengthening EU innovation performance
- Mastering globalisation
- Achieving resource and carbon efficiency
- Facilitating restructuring
- Ensuring access to finance
- Ensuring access to critical raw materials
- Addressing sector-specific issues

Update in 2012: "**A Stronger European Industry for Growth and Economic Recovery**"

Main Goal: Industry to approach 20 % of GDP

Six priorities **cutting across all industry sectors**:

- Advanced manufacturing technologies
- Key Enabling Technologies
- Bio-based products
- Clean vehicles and vessels
- Sustainable construction and raw materials
- Smart grids

COM(2012) 582 final, Brussels, 10.10.2012; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0582:FIN:EN:PDF

Bio-based Economy: operational structures

- Bio-economy Panel (all Stakeholders)
- Bio-economy Inter-Service Group (lead by DG RTD)
- Bio-economy Observatory (lead by DG RTD/JRC)
- Renewable Raw Materials (RRM) Group (Industry & MS-Agencies)
- Expert Group for Bio-based Products (lead by DG ENTR)

Bio-economy calls for close coordination of different EU policies, including RTD, AGRI, ENER, REGIO, ENV, CLIMA and ENTR

Challenges

- Promote fair and non-discriminatory access for European industry to bio-mass, by strictly applying the "cascade principle" for the use of biomass and entering into closer international cooperation

- Support technological innovation to better use bio-mass as a feedstock for value creation, by supporting PPPs under Horizon 2020 and facilitating access to finance for large scale demonstrators

- Promote the concept of the "circular economy", by facilitating the re-use of waste through standards and new business models that lead to better material efficiency and sustainability

- Stimulate the demand for bio-based products, by developing lists of product groups and facilitating networking between public procurers

Towards "green chemicals"

- "Bio-based" vs. "sustainable" chemicals: More than a semantic difference
- Market for "bio-based" chemicals will grow, including bio-based polymers, lubricants and solvents and recovered phosphates
- "Bio-degradable plastics" are most visible, but still a challenge
- Renewable raw materials represent 10% of feedstock for chemicals industry in Europe and will further increase
- Fair and non-discriminatory access to bio-mass is an issue for chemicals industry in Europe, within Europe and internationally

European Commission

High Level Group on the Competitiveness of the Chemicals Industry

- Set up in 2007
- 27 Members from Commission, Member States, regions, Industry, NGO's, academia, trade unions
- Final report published in 2009
- Looked into a number of strategically relevant areas, notably:
  - innovation, energy
  - climate change
  - trade

39 Recommendations…

- Three key factors for continuing success:
  - **More innovation and research** and strengthening networks and clusters are keys to securing competitiveness and sustainability.
  - **Responsible use of natural resources and a level playing field for sourcing energy and feedstock**
  - A competitive chemicals industry needs **open world markets** with fair competition

- HGL conclusions = input for future Commission policy initiatives

Status Implementation HLG Chemicals

Area	N°	Recommendation	Owner/Leader	Status	Key Examples
Innovation and Research	1	Topical innovation networks	Industry		
	2	Strengthen innovation clusters	Member States		
	3	SusChem explore opportunities	Industry		
	4	Private sector speed up innovation	Industry		
	5	Public sector to provide support to private sector efforts	Member States		
	6	Develop more effective dialogue with society	Industry		
Intellectual Property	7	EC+MS agreement on Community patent	Commission		
	8	EC+MS pursue efforts on international patent law	Commission		
	9	EC+MS recognise protection of confidentiality	Commission		
	10	Action against counterfeiting	Commission		
Regulation	11	Commission to take business impact studies into account	Commission		
	12	EC+MS improve communication wit h industry	Commission		
	13	EC+MS avoid divergence of rules and implementation requirements	Commission/Member States		
Human Resources	14	MS step up promotion of chemical/science eductation	Member States		
	15	Engineering faculties+industry define profiles of new professions	EUChems		
	16	Assess HR requirements in the short and long term	Industry		
Energy and Feedstock	17	Support petrochemicals sector by cluster strengthening, improving infrastr.	Member States		
	18	Gas market liberalisation	EU		
	19	Stable long term electricity supply	Industry		
Raw Material Change	20	Continue research for fossil feedstock replacement	Commission		
	21	Avoid side effects of incentives in agriculture/energy policy	Commission		
Climate Change	22	Research and development efforts	Industry		
	23	Adequate measures by emerging economies	Commission		
	24	Sectoral agreements, bring to a successful conclusion	Commission		
	25	Robust, verifiable info on emissions and emissions reductions	Industry		
	26	EC+MS efforts for full implementation of ETS directive	Member States		
Logistics	27	Development of local cluster platforms industry+ public authorities	EIRN		
	28	Cooperation to address key bottlenecks on wider intermodal transport use	Commission		
	29	Authorities assess possibilities to revitalise railway freight transport	Commission		
	30	Commission to investigate congestion of road network	Commission		
	31	Closing gaps in oloefin pipeline network	Commission		
Globalisation and Trade	32	Actively pursue NAMA agreement + sectoral agreement	Commission		
	33	WTO new accessions: avoid trade distortions	Commission		
	34	New FTAs: give priority to econmic criteria	Commission		
	35	No weakeninig of TDI legislatiion	Commission		
	36	WTO to ensure global level playing field of TDI practices	Commission		
	37	Harmonise customs procedures to avoid black/grey schemes	Commission		
	38	Promote development of new WTO rules	Commission		
	39	Reduction of import tariffs and import quota for raw materials	Commission		

= Implemented = Good Progress = No Progress

REACH Regulation - cornerstone of chemicals policy

- REACH objectives

  - protection of human health and the environment
  - enhance competitiveness and innovation
  - free circulation of substances (internal market)
  - promotion of alternative methods

- main obligations gradually phased-in since 2007 until 2018

European Commission

Ø One single and coherent system
for new and existing chemicals

Ø Core elements:

- **Registration of substances • 1 tonne / yr**
- **Communication in the supply chain**
- **Evaluation of <u>some</u> substances by Member States**
- **Authorisation <u>only</u> for substances of very high concern**
- **Restrictions – to address unacceptable risks**
- **European Chemicals Agency, ECHA manages system**

Ø Focus on priorities:

- **high volumes (as a proxy for potential risk)**
- **greatest concern (substances & uses with highest risk)**

Ø Shift of responsibilities

from public authorities towards industry

Enterprise and Industry

Registration – aims and timelines

aim • to assess risks • to develop and recommend appropriate Risk Management Measures

shift of the burden to registrants

REACH Review: Scope and evaluation process

COM has carried out a **broader** review than legally required, including on the first lessons learnt from the REACH implementation

With **special attention** to:

- **attainment of its aims on human health and the environment**
- **the costs and administrative burden**
- **other impacts on innovation**

Results presented in a Commission report (COM (2013) 49) accompanied by the COM Staff Working Paper

http://ec.europa.eu/enterprise/sectors/chemicals/documents/reach/review2012/index_en.htm

European Commission

- Nanomaterials
- Emerging Technologies
- Single Market & Competitiv.
- 138.6 Scope Review
- 117.1 + 46CLP MS reports
- 117.2+3 ECHA report
- 75.2 ECHA review
- 138.2+3 Polymers + low tonnage
- Baseline Study
- Healt & Env. Benefits
- Innovation
- Enforcement + inspections

REACH review

Communication on the second regulatory review of nanomaterials

General Report on REACH

- Guidance Updates
- Interpretations
- Operational Actions
- Implementing Legislation
- Impact assessment
- Proposal (annexes)

REACH review: conclusions (1/4)

REACH **functions well** and delivers on all objectives that at present can be assessed.

Some needs for adjustments, but balanced against legislative stability and predictability, no changes to the enacting terms of REACH.

In current framework, need to reduce impact on SMEs.

Many other opportunities for further improvement by optimizing implementation at all levels.

Commitment of all actors involved is necessary.

REACH review: conclusions (2/4)

Human Health and Environment

Too early to quantify benefits but positive initial trend for substances already registered:

- **More and better information available**
- **Better targeted risk management measures**
- **Significant decrease in the risks**

Increased moves towards substitution of SVHC

Internal Market and Competitiveness

Positive economic effects for business through harmonization, but:

Sizeable costs have increased market concentration

SMEs more vulnerable and insufficiently aware (mainly Downstream Users)

REACH review: conclusions (3/4)

Innovation

Increased communication in the supply chain – suppliers more informed about customer uses and needs

Substitution of SVHC as a source of innovation

Reorientation of R&D expenditure towards regulatory compliance

Promotion of alternative testing methods

Good progress with joint submission of dossiers and data sharing

€ 330 million funding made available by the Commission to support development of alternative methods in the period 2007 -2011

REACH review: conclusions (4/4)

Registration requirements for low tonnage substances and polymers:

More information needed; if appropriate, proposals in 2015

Scope

Overall coherent regulatory framework: no major overlaps but some minor and potential overlaps

ECHA

Key role in the technical and administrative management of REACH

Successful start-up, now working at cruising speed. Need to increase efficiency and stakeholder engagement

Engagement

Strong commitment of all actors needed

Recommendations (1/2)

Effectiveness

Improving quality of registration dossiers

Enhancing the use of safety data sheets as a central risk management tool

Increased coordination of enforcement activities

- **Enhance awareness-raising and communication activities via existing channels such as national Helpdesks or the Europe Enterprise Network**

Efficiency

Improve existing guidance documents

Integrate REACH into R&D and innovation processes

Improve the protection of IP via targeted and simplified guidance

Recommendations (2/2)

Proportionality

Reducing administrative burdens on **SMEs** while assisting them to fulfill all their REACH obligations

- Review of the Fee Regulation to lower impact of registration for SMEs
- Addressing issues related to information and cost sharing within SIEFs
- User-targeted guidance

Coherence

- **ECHA to play a central role in the technical and administrative management of REACH**
- **Strengthening the coherence in the implementation of EU legislation by amending technical annexes (if needed)**

REACH Review Follow-Up

Institutional debate:
Wide debate with other EU institutions, Member States and other stakeholders

March 2013:
Revised Fee Regulation (in time for the registration deadline in May 2013)

June 2013:
REACH Review Workshop

- **Dossier Quality**
- **SMEs**
- **Downstream Users**

December 2013:
Workshop on SIEF Functioning

1st half 2014:
Endocrine disruptors

Commission proposal for the adaptation of REACH Annexes to nanomaterials

January 2015:
> Commission proposal, if appropriate, with regard to registration requirements for 1-10 tonnes substances and/or polymers

> Follow-up report with regard to the impact of REACH on innovation

Relevance of the chemicals industry

EU sales of chemical products 538.7 bn € (1.1 % of EU GDP)

Direct employment 1.15 million people (2012), indirect employment additionally around 3 million people

29,000 companies (96% of them SMEs)

The products of the chemical industry

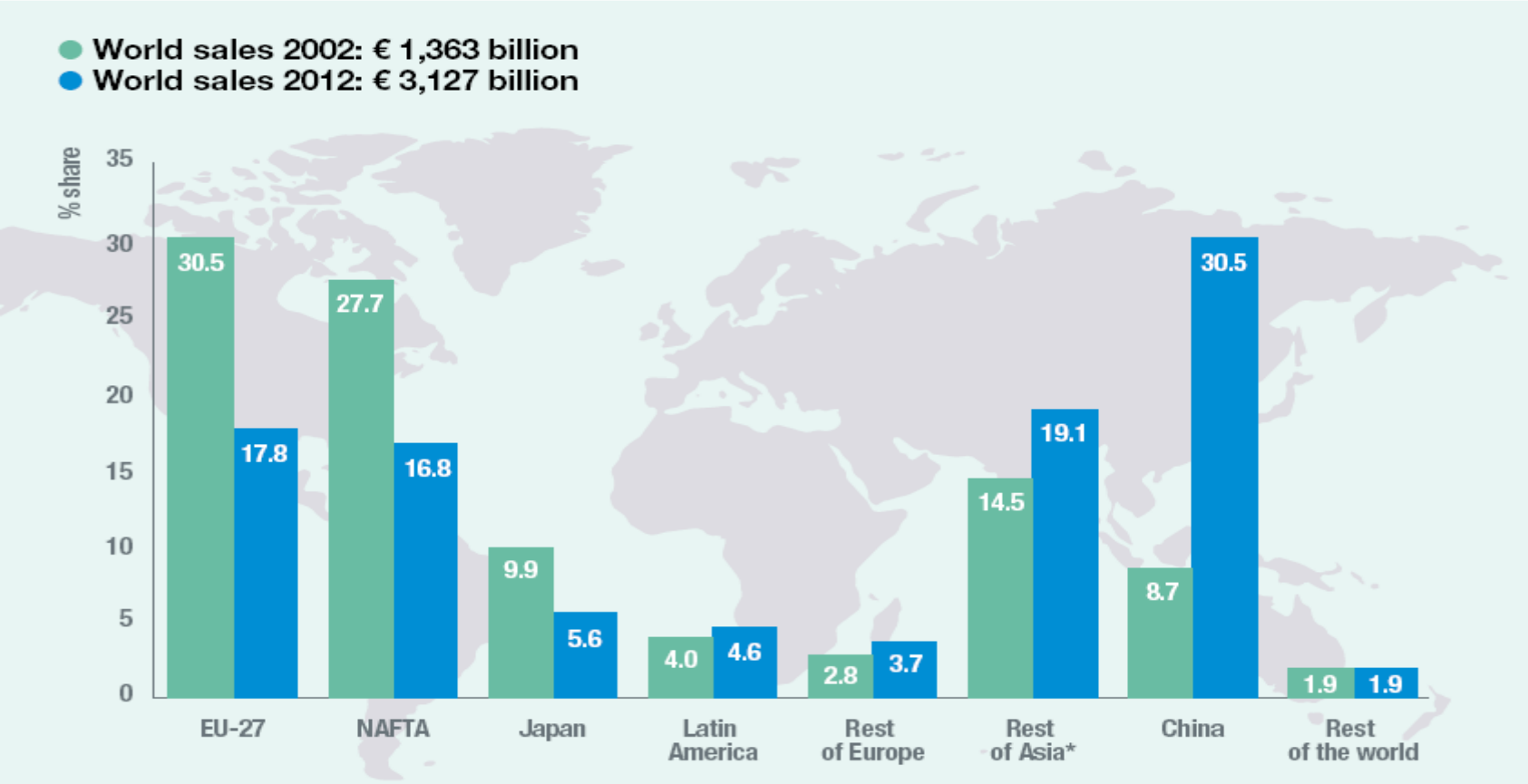
- **are important drivers in improving resource efficiency and resolving environmental problems**
- **contribute to over 1.5 billion tonnes of avoided greenhouse gas emissions during their use**

Strong integration within

- **value chains**
- **complex interlinked production sites which are not easy to disintegrate**

ð **Does this result in more stability of keeping production in Europe despite high energy prices and/or, if price differences to other world regions become too unfavourable, risk translocation of whole value chains?**

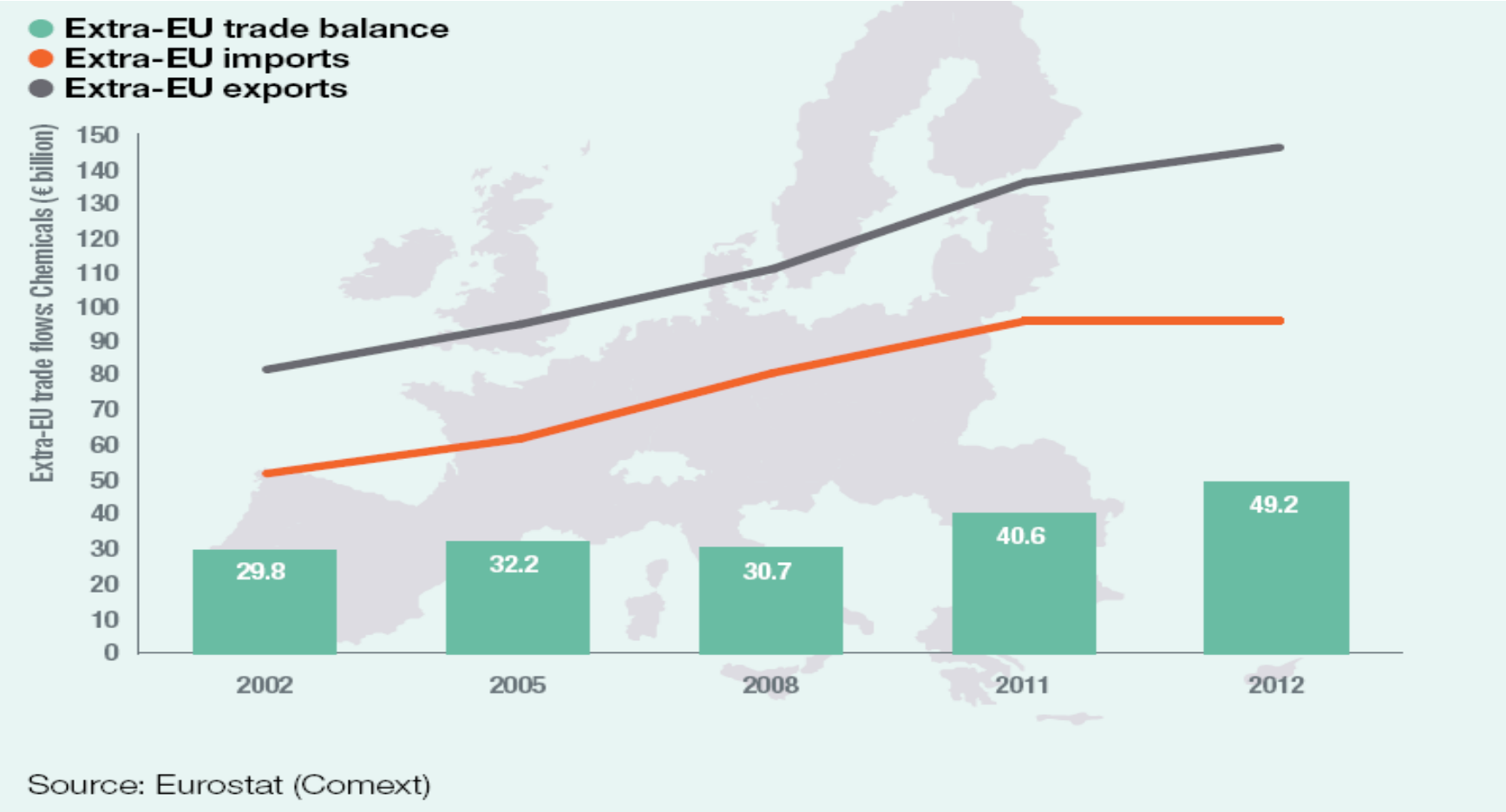
Global position of EU chemicals industry declines



Source: Cefic Chemdata International (2013)

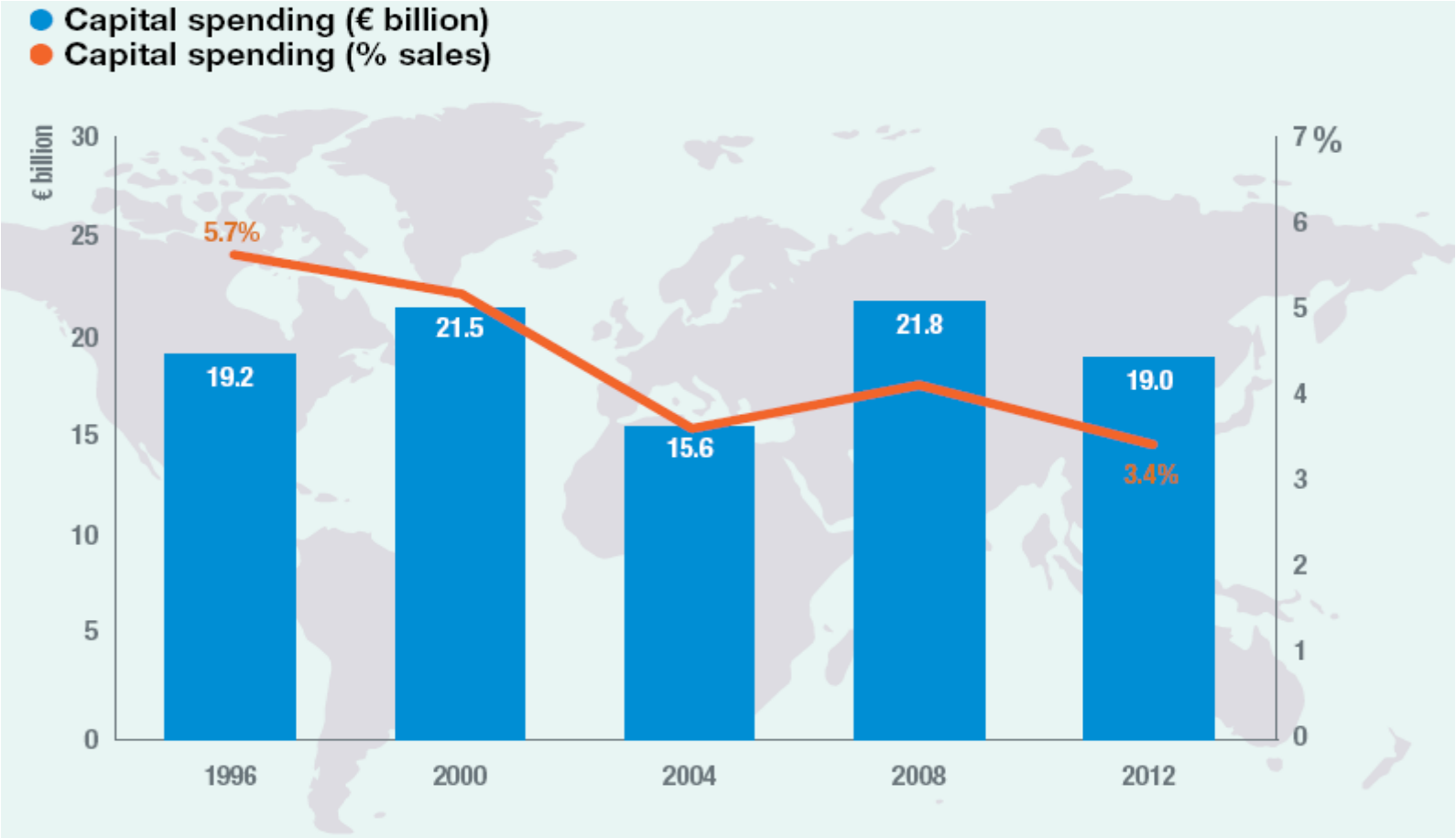
* Asia excluding China and Japan

Trade performance is still good



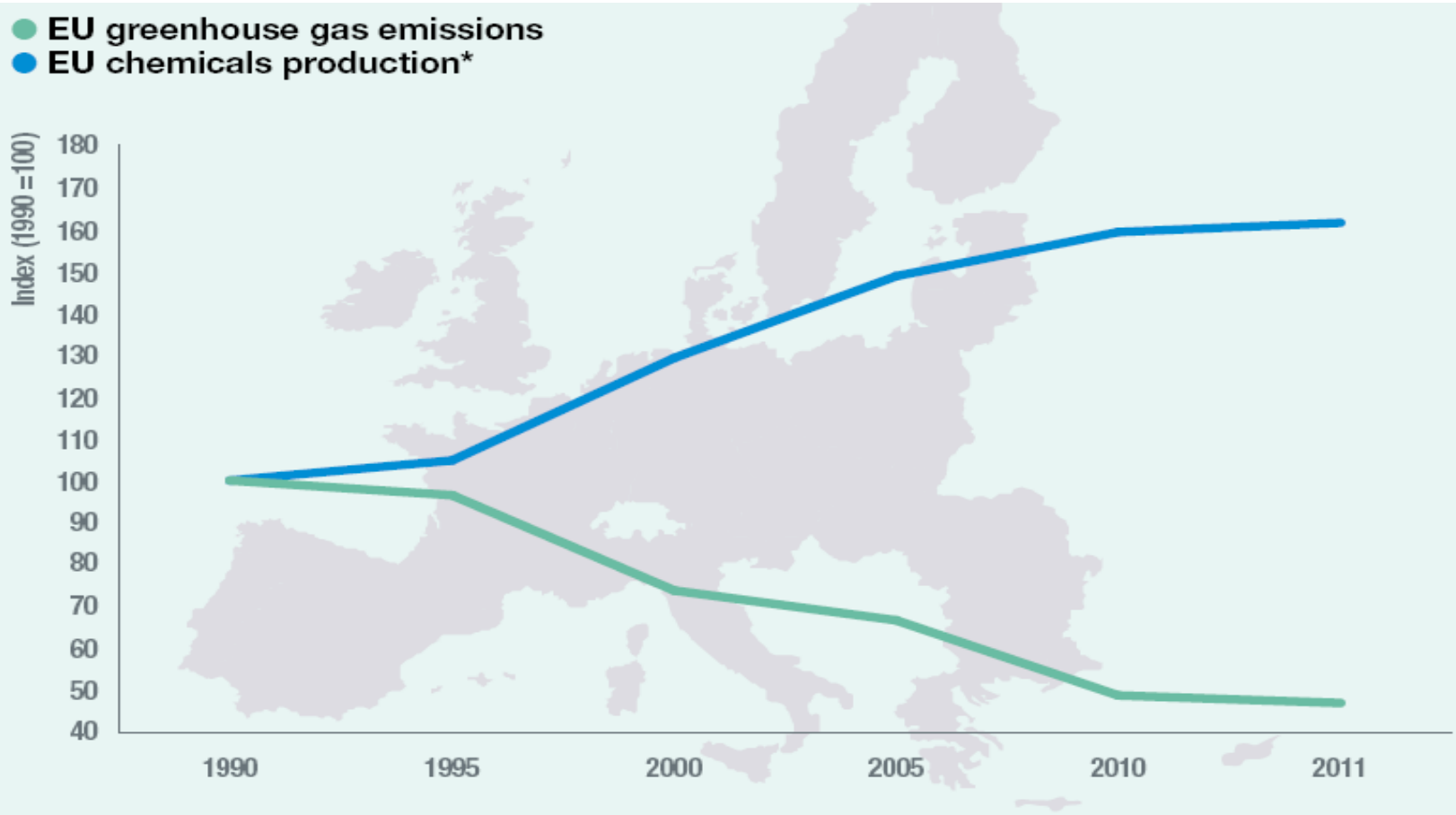
Source: Eurostat (Comext)

Insufficient investment for the future



Source: Cefic Chemdata International (2013)

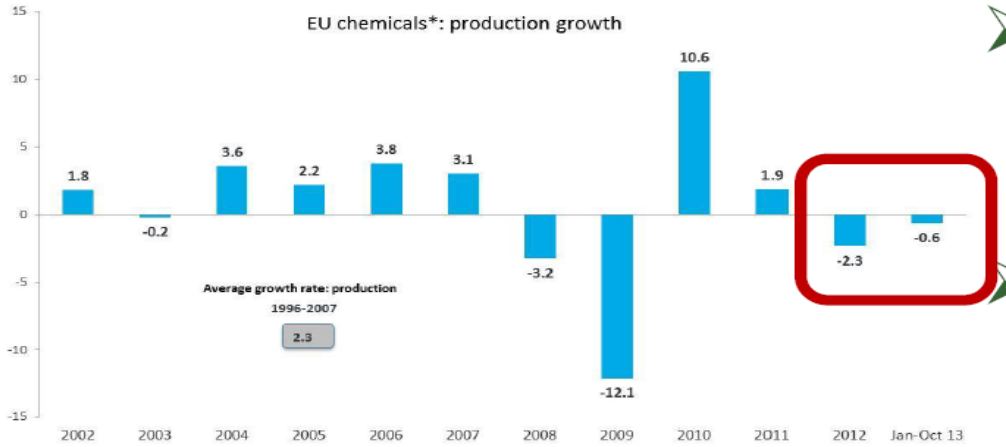
Decoupling of GHG emissions and production growth

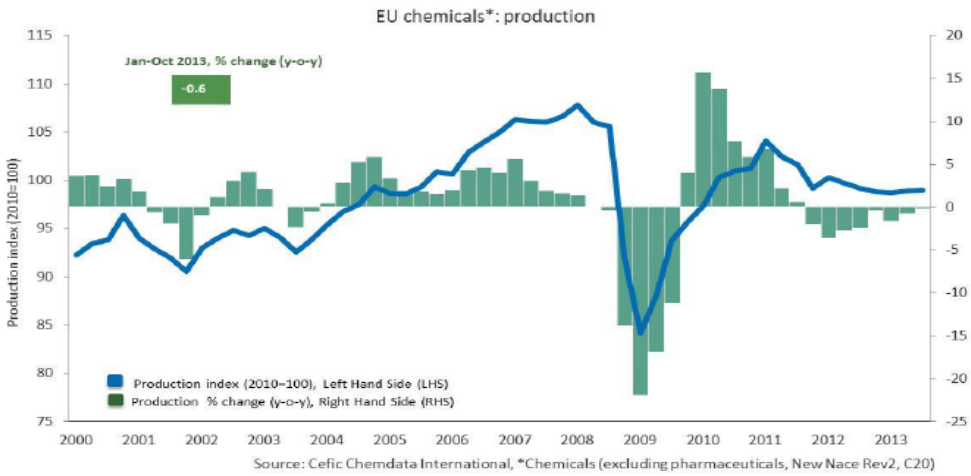


Source: Cefic Chemdata International (2013) and European Environment Agency (EEA)

* Including pharmaceuticals

EU chemicals:
Output drops 0.6% during Jan-Oct 2013



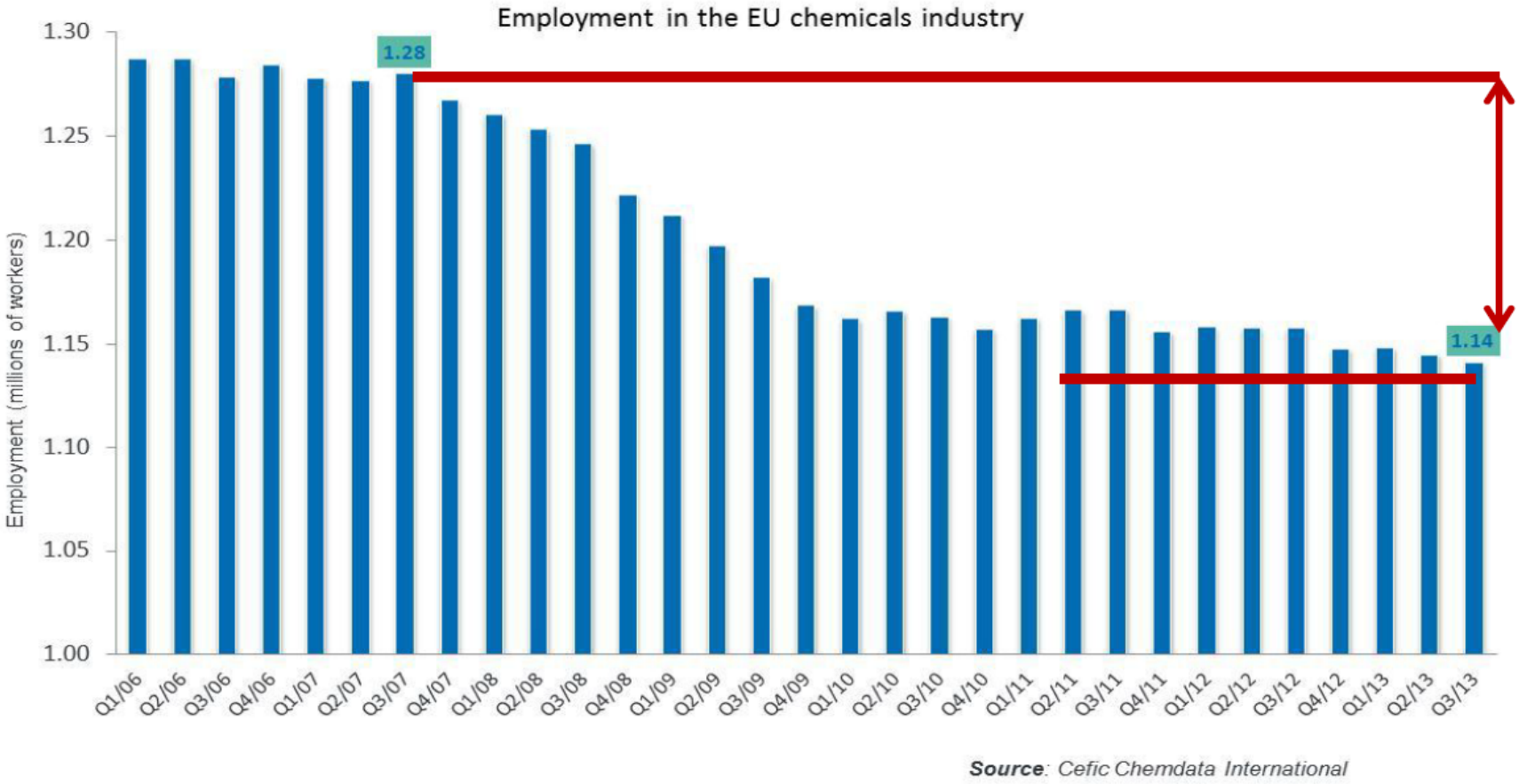


Source: Cefic Chemdata International, *Chemicals (excluding pharmaceuticals, New Nace Rev2, C20)

- In Q3-2013, no change in production compared to Q2 2013
- In Q3-2013, production 0.2% lower than year ago
- During Jan-Oct 2013 production 0.6% lower than year ago

During Jan-Oct 2013, production **6.9% below the peak level of year 2007**

Employment trend stable since Q1-2010



***Source**: Cefic Chemdata International*

Still nearly 10% below the pre-crisis peak level

The impact of unconventional fuels

US gas price that is currently around one fifth of the gas price in Europe

Manufacturing cost of ethylene in US currently about 500 USD/tonne (down from 900 USD/tonne in 2008)

Manufacturing cost of ethylene in the EU currently about 1200 USD/tonne (up from 1000 USD/tonne in 2008)

Ethylene capacity in the US projected to increase by 50% (most of this by 2017)

Similar capacity increases in Middle East and China

EU crackers are relatively old and small, and greenfield investments in the EU are unlikely

What does this mean for the production of ethylene and other base chemicals in Europe?

The impact of energy and climate policies

EU has been a first mover

- **Emission Trading System (ETS)**
- **Renewable Energy Directive**
- **Energy Efficiency Directive**
- **promoting innovation tools and technologies for decarbonisation**

Results

- **EU greenhouse gas emissions were 18.4% below 1990 emissions**
- **share of renewables in energy consumption has increased from 8.5% in 2005 to 12.7% in 2010**
- **share of the EU as a source of greenhouse gas emissions has dropped from 19.3% to 11.2%**
- **Have "first mover" advantages materialised?**

Taxes, renewable surcharges, ETS costs, and other fees linked to specific legislation add on as marginal costs to the energy price differential

Can we afford putting additional regulatory burden on energy intensive industries? Does it create a "first mover advantage"?