Petrochemicals in Europe

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Presentation outline

1. Petrochemicals Europe – Who we are
2. Why chemicals do matter
3. The chemical industry in Europe
4. The industry’s challenges
5. The consequences
6. The ecological footprint
7. Summary
1. Petrochemicals Europe - Who we are
Petrochemicals Europe - Who we are

- the association of petrochemical producers in Europe, an industry sector of Cefic

- European producers of base chemicals and derivatives

- ~ 90 members across Europe with 25% SMEs representing 90% of EU28 market

- Our vision: The petrochemical industry to be recognised as the foundation of future economic success in Europe, fuelling innovation, manufacturing and employment
Our Full & Affiliated members are:
As the voice of the European petrochemical industry, we

- Advocate for conditions that will allow the industry to operate successfully in a highly competitive global environment.

- Raise awareness of the contribution of our industry to the European economy which provides essential raw materials for thousands of products produced by diverse industries, driving innovation and creating employment.

- Engage continuously with all our stakeholders in the pursuit of sustainable solutions.
2. Why chemicals do matter
9 billion people will live on earth by 2050!
- How can we guarantee food and water supply for everyone?
- What are possible benefits and contributions of plant science?

67% of the world population will live in cities by 2025!
- What does future architecture look like?
- Which materials are needed to make energy consumption more efficient?

50% more primary energy needed in 2030!
- What is the ideal energy mix of the future?
- How big is the stake of renewable energy?

1.2 billion cars will drive on earth by 2020!
- How can we reduce emissions and fuel consumption?
- What will future cars be made of?
95% of all manufactured goods are based on petrochemicals, such as electronics, furniture, appliances, textiles, and many more.

- benefits: sustainable solutions to energy savings and comfort, for example insulation, durable, light-weight and resistant composites, etc.

... but:

- Highly exposed to international competition (commodity business)
Europe’s chemical excellence is based on a variety of value chains which originate from its steam cracker base.
3. The chemical industry in Europe
Chemicals market size: Global chemicals production (trillion €)

Markets are growing strongly – Europe loses share

Source: Cefic Chemdata International and Cefic analysis

CAGR World 4.1% (2013-2030)
Petrochemicals and specialty chemicals account for half of EU chemicals sales

Petrochemicals are an important industry segment and mark the starting point of almost all chemical value chains.
The petrochemical industry in Europe - A short portrait

- More than 50 steam crackers in operation in EU 28
- > 300,000 direct employees; 1,2 million incl. multiplying effects
- Contribution to overall European GDP: 155 bn € (= 155,000,000,000 €)
- Energy intense: > 80% of production costs related to oil & gas as feedstock and energy
- Capital-intense (steam cracker > 1,5 bn €)
4. Challenges and uncertainties
Challenges and uncertainties

- Brexit
- Oil price
- Electricity price
- Regulation
Cumulated number of EU regulations on Health, Safety and Environment (net of abrogation)

Source: EU, Directory of EU legislation in force (Chapter 15 – Environment, consumers and health protection)
Regulatory costs in Europe are steadily rising


* Source: CCA by EU Commission, DG Grow, Technopolis, December 2015
5. The consequences
Regulatory costs eat a significant part of the profits up

* Source: CCA by EU Commission, DG Grow, Technopolis, December 2015
New investments - everywhere outside Europe
6. The ecological footprint
The eco footprint of the chemical industry has substantially improved:
- 60% GHG emissions!
Energy intensity of the chemical industry...

~ 60% less energy consumption, + 80% more production in the same period
... is significantly better than industry average.

Energy intensity: chemicals* vs total industry

Source: Eurostat and Cefic analysis
* Including pharmaceuticals
7. Summary
Competitiveness Pros and Cons for Europe

😊 Large integrated domestic market with strong customer industry clusters

😊 Until now availability of skilled and motivated workers and scientists

😊 Continued strategic restructuring efforts (flexibility to globalised markets)

😊 Strong innovation efforts to generate new growth clusters and solve upcoming societal mega challenges

😢 Low demand growth for chemicals in general: elderly population, shrinking working age classes, high saturation levels

😢 High energy and feedstock costs vs. Middle East and U.S.

😢 High regulatory compliance costs: e.g. REACH, Seveso, IED, 7th EAP…
Thank you for your attention!

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