CEFIC POSITION ON THE CLEAN ENERGY FOR ALL EUROPEANS PACKAGE

EXECUTIVE SUMMARY

MAY 2017

cefic

Europe's chemical industry welcomes the Clean Energy Package proposal from the European Commission in its ambitions to reform and harmonise energy markets in Europe and to pioneer the low-carbon economy for the benefit of all its citizens.

Our industry is at the core of delivering on this package; whether by adopting its measures and putting them into practice in our thousands of manufacturing operations across Europe, or providing high-tech solutions for provision of renewables and efficiency materials for other major industries.

We want to make a success of the EU Clean Energy Package as an enabler of **European industry's competitiveness** and a unique opportunity for European institutions to deliver on Europe's ambitious transition to cleaner energy and meet climate change goals. To that end, we make a series of recommendations to reach this ambition in an effective, secure and cost-conscious way that delivers value for investment to European economic contributors such as industry.

Cefic believes that this would be achieved by applying general guiding principles to:

- **Provide competitive, reliable, and sustainable energy** for industry
- **Enable innovation** in industry sectors that develop products and technologies that avoid greenhouse gas emissions (GHGs) across value chains
- **Foster innovation to reduce the cost** of all renewable sources
- **Avoid costly and unnecessary** overlapping **legislation**

More detailed recommendations are addressed to each relevant legislative proposal as follows:

Governance of the Energy Union must place a stronger focus on competitiveness

- Promote **international competitiveness** to keep Europe's leadership
- Ambition must be set at European level. However, national actions should primarily **focus on non-industrial sectors and national energy and climate plans should be flexible** to reflect economic trends and variations in demand
- **Involve industry and value-chain partners** to join forces in providing the most efficient solutions

Energy Efficiency comes first, but not at the expense of growth

- The EU chemical industry continues to seek increased energy efficiency in its own production, as doing so intrinsically enhances competitiveness
- **A cap on energy consumption is not appropriate for industry**: energy savings should come from energy efficiency improvements rather than reduced industrial production
- **Energy use in industry which is also regulated by the ETS must be excluded from any Energy Savings Obligation** and participation in energy savings schemes must remain on a fully **voluntary basis**
- Member States should have **flexibility regarding the way to implement the target**: all energy efficiency measures should be eligible to fulfill it
- **The Commission and Members States goal to promote energy efficiency in new and existing buildings will deliver significant benefits**. Sectors of the European economy with **large and untapped energy efficiency** potential should be better targeted

Electricity market re-design is a critical competitiveness success factor

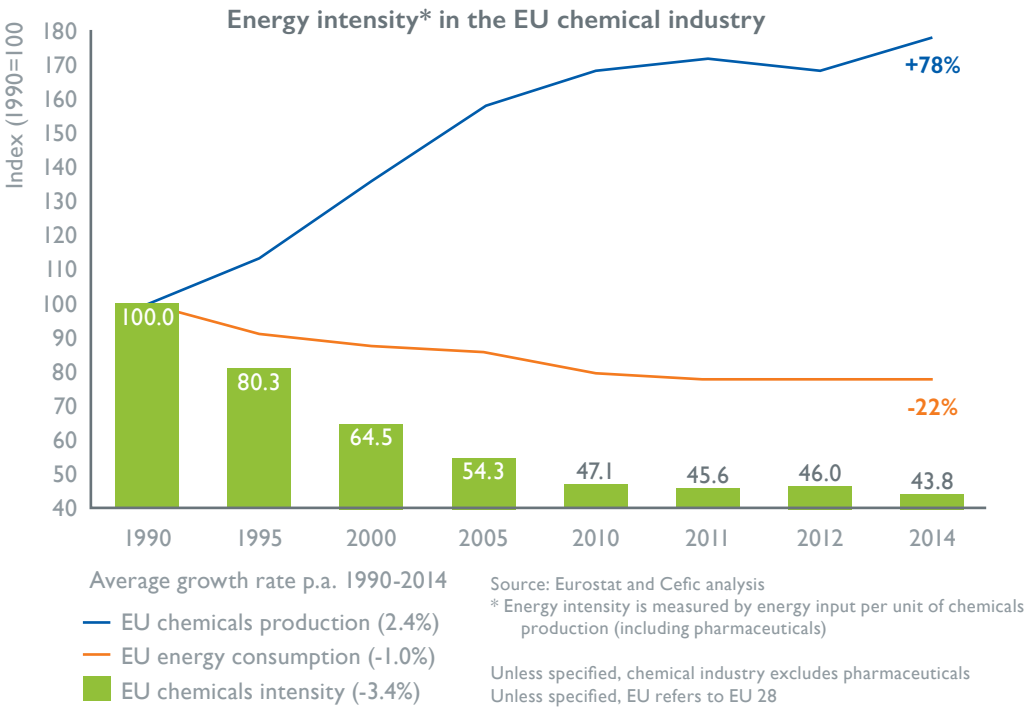
- Ensure **secure and reliable electricity supply**
- Foster the emergence of **market-based energy production and pricing mechanisms** that include all energy sources equally in future policies
- There should be **no priority access** granted to certain technologies
- **Capacity mechanisms** should only be considered as a last resort and be coordinated across Members States
- Allow market-based rewards for voluntary **demand side management**
- **Closed distribution systems** should continue to be exempted from Distribution System Operator (DSO) rules and reporting requirements

Renewable energy, a game changer

- **Renewables** will facilitate the transition towards a low carbon energy system. Innovative solutions developed by the chemical industry supports a more rapid and cost-efficient penetration of these renewables on the European market. Whilst transitioning, Cefic calls on policy makers to **ensure industry's stable access to competitive and secure electricity**
- **Support for renewable energies must be cost-efficient, innovation-focused and contribute to real GHG emissions reduction.** Any support schemes to renewable energies must diminish over time to enable a fully liberalised energy market
- Establish a level playing field for the **use of the same biomass**; ensure a technology-neutral approach, looking at the entire life-cycle of products
- The **chemical industry provides innovative technologies to re-use CO_2 and other industrial gaseous effluents**. Sustainable valorisation of CO_2 makes sense in all sectors and under different uses

ENERGY EFFICIENCY IN THE CHEMICAL INDUSTRY

The chemical industry has an impressive track record on energy efficiency: Since 1990, the chemical industry has made tremendous progress in this regard: its production increased by 78% while energy consumption has gone down by 22%. Such improvements have taken place for example, through process intensification and integration, introduction of energy management systems, novel energy-saving processes, and the installation of Combined Heat and Power (CHP).



Source: Eurostat and Cefic analysis
* Energy intensity is measured by energy input per unit of chemicals production (including pharmaceuticals)

Unless specified, chemical industry excludes pharmaceuticals
Unless specified, EU refers to EU 28

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Chemical companies increasingly use combined heat and power (CHP) plants to generate both electricity and steam. Such cogeneration plants are an extremely effective means of supplying energy and, with an overall fuel efficiency of almost 90 percent, are the front-runners among energy conversion methods suitable for use on an industrial scale.

For example, BASF sites' worldwide are supplied by more than 25 gas turbine plants in combined heat and power mode. By using CHP technology, BASF is able to meet around 70 percent of its electricity demand and saved about 14.0 million MWh of fossil fuels in 2016, compared to conventional electricity and steam generation. This corresponds to 2.8 million metric tons worth of prevented carbon emissions.

Heat utilisation, careful maintenance and automatized measuring have helped the company J.M. Huber Finland ltd factory to control the maintenance of their glass kiln. They included into this project improvements to the kiln itself and heat recovery system, as well as operators' training.

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ENERGY PERFORMANCE OF BUILDINGS

The chemical industry is and will remain a solution provider, leading to energy efficiency further in the value chain like in the construction industry, automotive, aerospace, homecare products and textiles. Our smart solutions for energy efficient buildings include products such as chemical-based insulation products, which significantly reduce the energy needed to heat or cool residential and service buildings.

In 2015, Total introduced two premium grades of grey Expandable Polystyrene (EPS), with and without flame retardant. Both are intended for the insulation market and used particularly in cases where maximum insulation performance must be achieved using a minimum thickness of material.

These Total EPS grades deliver environmental benefits representing 21% reduction in energy consumption and 23% reduction in greenhouse gas emissions.

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Over 50 years ago, BASF invented a classic product for efficient insulation, known worldwide under the trade name Styropor®.

With Neopor®, they have taken this classic a step further. The novel feature of this product is the addition of black graphite particles which improve the insulation performance by up to 20 percent.

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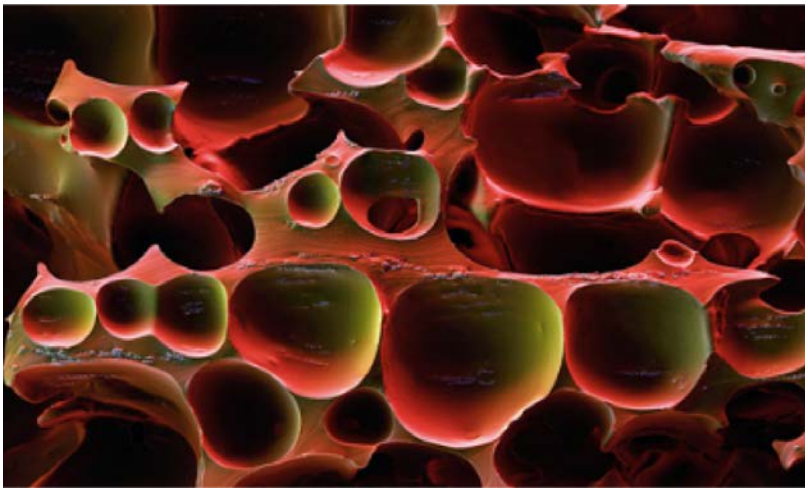

Polyurethane (PU) rigid foam systems are used in a number of cold and heat insulation applications. In addition to energy and cost savings, PU rigid foam offers architects freedom of design and additional living space due to slimmer construction options and as a result is used in house-building in a number of roof, wall and floor applications.

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SOURCING ENERGY FROM RENEWABLES

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In 2013, Borealis signed a contract with W@S to participate in the Antwerp Left Bank Wind Energy Project. As part of a greater project that includes the construction of around 50 wind turbines on the left bank of the Scheldt river (port of Antwerp), W@S installed three wind turbines on the Borealis Kallo site to generate wind energy which is consumed on-site in the chemical processes.

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Cefic, the European Chemical Industry Council, founded in 1972, is the voice of 29,000 large, medium and small chemical companies in Europe, which provide 1.2 million jobs and account for 14.77% of world chemicals production.

Cefic members form one of the most active networks of the business community, complemented by partnerships with industry associations representing various sectors in the value chain. A full list of members is available on the Cefic website: www.cefic.org/About-us/Our-members

Cefic is an active member of the International Council of Chemical Associations (ICCA), which represents chemical manufacturers and producers all over the world and seeks to strengthen existing cooperation with global organisations such as UNEP and the OECD to improve chemicals management worldwide.

Chemistry making a world of difference

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