

The European chemical industry and its role in Europe's bioeconomy

Cefic key messages

- *The bioeconomy is offering an opportunity for the chemical industry to diversify its raw material base;*
- *The European chemical industry is critical for the success of the bioeconomy, as it innovates and develops sustainable processes and products, while providing European jobs & growth;*
- *In order for Europe to play a key role in the global bioeconomy, adequate and coherent policies are needed to unlock its potential.*

Europe's bioeconomy is able to deliver on sustainable growth & jobs

A study of the Bio-based industries Consortium¹ showed that the European Bioeconomy amounts to € 2.1 trillion turnover and 18.3 million jobs. The bio-based industries (i.e. chemicals, plastics, pharmaceuticals, paper and forest-based sectors, textiles, biofuels and bioenergy) contribute to-date with € 600 billion turnover and 3.2 million jobs. The bio-based share of chemical industry in the EU-28 was 6% and 12% for organic chemistry (data for 2013, source BIC).

Worldwide sales of renewable chemicals represented 9 percent of the €2.3 trillion in chemical sales in 2012. By 2020 bio-based products are expected to make up 11% of the €3.1 trillion global chemical market (Source McKinsey, cited in a report of BIO²).

The European chemical industry is a key enabler in the bioeconomy

Chemistry and biotechnology enable the entire bioeconomy value chain, from fertilizers, crop protection to bio-refining biomass into bio-based chemicals and materials that could go into food, feed, plastics, paints, adhesives, fuels and energy, lubricants, cosmetics, pharmaceuticals and many more applications.

Biorefineries are at the heart of the European bioeconomy

Biorefineries convert renewable raw materials, including by-products and waste, into industrial primary and end-products: chemicals, materials, or fuels. Biorefineries can be traditional biomass processing facilities or highly integrated systems that use various biomass fractions to produce a range of bio-based products. As an example, oleo-chemistry uses biorefineries to process vegetable oils and animal oils and fats into a range of products, like food ingredients, lubricants, or pharmaceuticals.

¹ <http://biconsortium.eu/news/european-bioeconomy-eur-21-trillion-turnover-and-183-million-employees>

² <https://www.bio.org/advancing-biobased-economy-renewable-chemical-biorefinery-commercialization-progress-and-market>

If Europe wants to play a key role in the global bioeconomy, adequate, stable and coherent policies are necessary to stimulate innovation and encourage regional deployment, attract investment and allow markets to develop.

The European Commission's Bioeconomy Strategy can deliver via smart policies

European policies should secure access to competitively priced renewable raw materials, enable funding in R&D, innovation, demonstration & pre-commercial facilities and enable investments via existing investment instruments for markets to develop. Moreover, policies should promote the sustainable use of raw materials based on a for chemicals standardized life-cycle approach.

Create a level playing field for all raw materials at world market prices and boost bio-based investments

Growth of Europe's bio-based industries will also depend on access to renewable raw materials at world market prices, including sugar, bioethanol or vegetable oils, for industrial use. In addition, users competing for the same raw materials should be placed on the same leveled playing field regardless of usage. In order for the European bioeconomy to expand and build sustainable value chains, synergies should be used between the wide variety of instruments to fund and boost R&D, demonstration and pre-commercial facilities, via e.g. public-private partnerships like Spire and BBI - Bio-based Industries, and further allow investments in an emerging bioeconomy sector via regional, structural funds and the European Fund for Strategic Investments.

Encourage the bio-based economy via standards

The chemical industry supports the European Bioeconomy strategy in stating that standards are central for a single market, suggesting that methodologies developed by the European Committee of Standardization CEN be implemented, including a.o. clear terminologies, methods for Life Cycle Assessments or similar approaches. Science should be the basis of policy decisions, ensuring the chemical industry to find sustainable and eco efficient solutions.

Use the synergies between the bio-based and circular economy

The bioeconomy is circular by nature, since it recycles atmospheric CO₂ into bio-based products. Therefore, in the context of the EU Circular Economy approach, which focuses in particular on resource efficiency, policy makers should use the bioeconomy as a tool to make Europe's economy more circular.

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About Cefic

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 17% of world chemicals production.