

# Reviewing the European Bioeconomy Strategy - Enablers, lessons and 10 recommendations

Cefic commends the ambition of the first European Bioeconomy Strategy and its noteworthy successes. The chemical industry sees a lot of untapped potential for the bioeconomy to contribute to the ambitions of the EU Green Deal. It calls for more certainty, visibility, consistency, and better policy coordination for the EU to be a frontrunner in bioeconomy.

## Background

The European Commission is working on an assessment of its 2018 Bioeconomy Strategy and the related Action Plan with a view to:

- report on the 14 actions of the Action Plan
- report on general progress of the bioeconomy in Europe
- highlight the contribution of the bioeconomy to the European Green Deal.

According to a recent JRC report<sup>a</sup> exploring possible scenarios for the bioeconomy in Europe, the most promising way forward involves the combined engagement of policymakers and society (BioWEconomy).

At the same time, in the Communication on Sustainable Carbon Cycles, the European Commission announced the aim of at least 20% of carbon used in chemical and plastic products to come from sustainable non-fossil sources by 2030. This will be done in full consideration of the EU's biodiversity and circular economy objectives and of the upcoming policy framework for bio-based, biodegradable and compostable plastics.

Early 2021, Cefic released a [view paper](#) on how to boost the bioeconomy sector, that emphasises the contribution that bio-based chemical products could bring to the achievement of the Green Deal objectives and identifies some of the needed enabling conditions.

While these documents outline success stories, they also provide valuable input to make recommendations for the future.

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<sup>a</sup> Future transitions for the Bioeconomy towards Sustainable Development and a Climate-Neutral Economy, Foresight Scenarios for the EU bioeconomy in 2050, The European Commission's Knowledge Centre for Bioeconomy, 2021

## Success stories and lessons learned

The revised 2018 Bioeconomy strategy spells out 14 actions clustered around 3 key pillars. We, the European chemical industry, welcome the fact that several of these actions have been successfully implemented, such as:

- the Bio-based Industries Joint Undertaking BBI-JU and its successor, the Circular Bio-based Europe Joint Undertaking CBE-JU
- the European Circular Bioeconomy Fund
- the Erasmus+ Blueprint for sectoral cooperation on skills
- the Bioeconomy Knowledge Centre and its expanding knowledge base
- the Cluster 6 (food, bioeconomy, natural resources, agriculture and environment) of the European Framework Programme for Research and Innovation Horizon Europe

These actions are of critical importance and the industry is eager to help implement and secure these measures in the future.

For example, public-private partnerships (such as the BBI-JU) have leveraged multiple positive impacts (green jobs, innovation along the value chains, local development, investments, collaborations, skills, sustainable and circular solutions for consumers, etc.)<sup>b,c</sup>.

During the implementation period of the 2012 Bioeconomy Strategy and of the 2018 revision, some lessons have also been learned:

- Some policy initiatives launched in the context of the European Green Deal fail to consider the possible positive contribution of the bioeconomy to reaching its 2050 goals. Some might even dampen its development, hence putting at risk the European leadership potential.
- Some policies are already under review or updated while they have not yet been given a chance to prove their potential benefits, hence creating legal uncertainty and regulatory risks for economic operators (e.g. the Renewable Energy Directive).
- Some policy-driven market mechanisms and incentives have unintended consequences on feedstock availability (e.g. Sustainable Finance<sup>d</sup>, Renewable Energy Directive ...), which may deter engagement and investment in the bioeconomy.

## What will our industry do?

To bring bio-based products in general, and bio-based and bio-derived chemicals and polymers in particular, at scale, we envision to:

- increase the sustainable<sup>e</sup> and efficient use of biomass to produce bio-based and bio-derived chemicals fitting within the circular economy,

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<sup>b</sup> <https://www.bbi.europa.eu/sites/default/files/documents/bbiju-impact-green-recovery.pdf>

<sup>c</sup> [https://biconsortium.eu/sites/biconsortium.eu/files/downloads/Bioeconomy\\_contribution\\_Green\\_Deal.pdf](https://biconsortium.eu/sites/biconsortium.eu/files/downloads/Bioeconomy_contribution_Green_Deal.pdf)

<sup>d</sup> Possible exclusion of the use of 1<sup>st</sup> generation feedstocks

<sup>e</sup> In this paper, we define “sustainability” and “sustainable” according to the triple bottom-line, i.e. contributing to a healthy environment, to social well-being and to a just economic prosperity.

- increase the amount of sustainable biomass used to manufacture bio-based and bio-derived chemicals,
- increase the use of bio-waste and bio-residues as feedstocks to contribute to a more circular economy, which makes sense from a lifecycle point of view,
- provide evidence for/document the environmental and climate current and future benefits of chemical products, e.g. through Life cycle assessment (LCA) and similar tools (from cradle-to-gate and including any relevant biogenic credit) that demonstrate these benefits of bio-based products,
- promote further recycling of all chemicals and materials, including bio-based ones.

## **10 policy recommendations/asks**

For the bioeconomy to fully deploy its benefits for society, in harmony with the planet and its inhabitants, existing challenges related to the business case e.g., fulfilling additional investment needs, have to be overcome. Therefore, we call on policymakers to consider in the current review and in future decision-making:

1. The enabling role of bio-based and bio-derived chemicals for the successful implementation of several EU policy initiatives, such as the design of products that are safe and sustainable by design (SSbD) as part of the Chemicals Strategy for Sustainability (CSS), the Sustainable Products initiative from the Circular Economy Package, the Restoring sustainable carbon cycles initiative, the Sustainable Textile Strategy, the Policy framework for bio-based, biodegradable and compostable plastics, etc.
2. Consistent and aligned policies (e.g., Sustainable finance and the taxonomy, the Renewable Energy Directive and its sustainability criteria for biomass, the Land Use, Land Use Change and Forestry (LULUCF) policy that might restrict the availability of biomass, the Waste legislation and the need for harmonised definitions of waste, byproducts, etc.) to enable the full delivery of the positive contribution of bio-based and bio-derived chemistry from sustainable biomass.
3. Objective and science-based evaluation and recognition of the economic, environmental and social impacts of the bioeconomy and bio-based products. As an example, the current PEF methodology applied to bio-based products, in particular chemicals, doesn't acknowledge a positive contribution of the chemical industry to climate action. We have an opportunity to further improve the Product Environmental Footprint (PEF) methodology by fixing these issues.
4. Improved access to sustainable biomass at fair economic and technical conditions for all market players while fully respecting the planet's boundaries.
5. Enabling regulations to valorise residues and wastes from bio-based products production. Adapt and clarify the end-of-waste legislation and definitions accordingly.
6. Incentivise increased market recognition and promotion and a levelled playing-field for bio-based and bio-derived products, beyond standards and labels.
7. Increased funding and financing streams for bio-based research & innovation projects as well as close to market and production projects such as under Horizon Europe, Public Private Partnerships (e.g., Circular Bio-based Europe) or the European Circular Bioeconomy Fund. Make sure that a relevant part of such funding is earmarked to ensuring a stable and consistent supply of biological resources to bio-based industries. Allocate also funding to

improved and novel recycling technologies that would enhance the circularity of the bioeconomy.

8. Ensuring science-based, proportionate, and predictable regulations that foster innovation from the intelligent combination of biological, chemical, and engineering sciences and digitalisation.
9. Consolidation of the EU Bioeconomy Monitoring System in providing trustworthy data and robust indicators supporting a truly sustainable and circular bioeconomy.
10. Awareness raising campaigns and activities that would help lifting misunderstandings around bio-based products and their benefits.

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About Cefic

Cefic, the European Chemical Industry Council, founded in 1972, is the voice of large, medium and small chemical companies across Europe, which provide 1.2 million jobs and account for 16% of world chemicals production.