Bio-based Industries Consortium

July 2025

The new EU Bioeconomy Strategy: *BIC policy paper

*This BIC policy paper is based on BIC's contribution to the EU Bioeconomy Strategy consultation. The EU Bioeconomy Strategy is due to be published by end of 2025.

BIC advocates for the new EU Bioeconomy Strategy to be S.M.A.R.T. and ambitious (July 2025)

BIC believes we can turn Europe into the world's first true circular bioeconomy — creating jobs, revitalising industries and regions, and making Europe less dependent on imports.
The bioeconomy is already a strategic and economic pillar for Europe[1]. By producing food, feed, chemicals, materials, products and energy, the bioeconomy plays a growing role in Europe's long-term competitiveness and resilience, reducing our dependency on fossil feedstock and via EU-centric supply-chains.
The question is whether Europe has the ambition to take the lead in the coming years.

BIC advocates for the new EU Bioeconomy Strategy to strengthen the bioeconomy's industrial dimension, protecting existing and fostering new investments. This should include a package of legislative and non-legislative actions to accelerate defossilisation and to fully unlock the potential of biomanufacturing 'Made in Europe' as a driver of sustainable growth, innovation, and strategic autonomy.

The new EU bioeconomy strategy should be S.M.A.R.T. and define:

- **S**pecific
- **M**easurable
- **A**ssignable
- **R**ealistic and
- **T**imebound actions[2].

In addition, the EU Commission should set-up a strategic dialogue with the sectors from the bioeconomy and its value chain on how the bioeconomy can contribute to EU's long-term competitiveness and resilience.

In the following, we outline the actions that should be included in the new EU Bioeconomy Strategy, to help achieve its stated objectives.

[1] https://biconsortium.eu/publication/european-bioeconomy-figures-2008-2021
[2] In the US, a similar approach has been taken in the Executive Order on the Bioeconomy (see here)

1. *Ensuring the long-term competitiveness of the EU bioeconomy and investment security*

To ensure long-term competitiveness and resilience, Europe must accelerate the path from lab to factory by enabling biomanufacturing[3] at scale along the value chain.

The bio-based industries enable the creation of new R&I and new industrial ecosystems by bringing together partners from different sectors who are often not used to working on projects together.
This includes startups, small and medium-sized companies (SMEs), large companies, universities and research institutes. Whilst SMEs and startups are the engine of innovation in Europe, it's the collaboration between sectors, and together with large companies, that drives bio-based innovation.

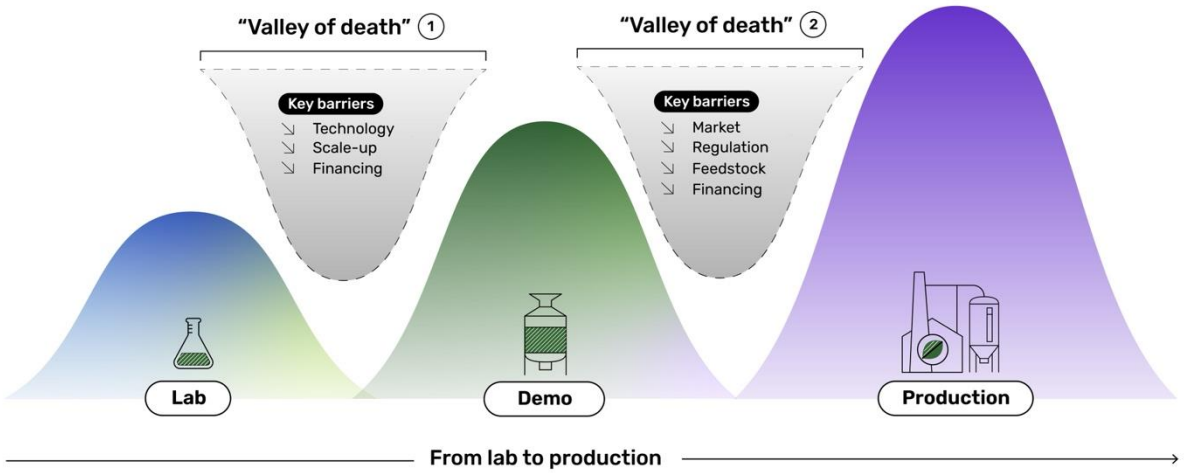
Currently, the bio-based industries face two innovation valleys of death (see illustration below).

The first valley is about the funding of early and collaborative R&D, to prototype or proof of concept. The Circular Bio-based Europe Joint Undertaking is one of the main instruments for overcoming the key barriers of this valley.

The second valley is about transforming successful prototypes into commercially-viable products, and to access the market. Here, Europe lags behind other regions in terms of providing the right framework conditions for bio-based solutions e.g. access to and creation of markets, a regulatory framework fit for purpose, securing feedstock availability and suitable financing instruments.

Reducing the investment risk and mobilising private investment, including venture capital, will be key for Europe to overcome both valleys of death, particularly the second one.

[3] Biomanufacturing is about the efficient valorization of renewable feedstock into food, feed, chemicals, materials and other bio-based products, using any technology.



2. *Increasing resource-efficient and circular use of biological resources*

The bioeconomy is the "green motor" of circular economy[4]. The bioeconomy can play a fundamental role in defossilising the materials and chemicals sector and in creating sustainable carbon cycles. This opportunity is currently underutilised.

Firstly, European companies of all sizes need a more ambitious, predictable and innovation-friendly policy framework to turn the bioeconomy in a key strategic sector for the EU.

Secondly, the potential of the EU Single Market should be better leveraged by improving coordination, overcoming fragmentation and ensuring (policy) coherence.

Thirdly, to increase demand, we emphasise the lack of binding mandates or targets for biomaterials in Europe. Instead, there are only non-binding targets e.g. to have at least 20% of the carbon used in the chemical and plastic products from sustainable non-fossil sources by 2030[5]. As stated in the Clean Industrial Deal, "to move away from fossil materials, it is vital to mandate the use of new raw material sources like bio-based materials". Similar to those that exist for other renewables, the EU should introduce market-

[4] The circular economy focus is on "maintaining the value of products, materials and resources in the economy for as long as possible". The bioeconomy can go beyond e.g. by including new aspects such as product functionality, processing routes. See BIC paper here

[5] EU communication on sustainable carbon cycles, 2021: https://climate.ec.europa.eu/system/files/2021-12/com_2021_800_en_0.pdf

pull measures, such as incentives, binding mandates and targets. This, in turn, would stimulate the market uptake of bio-based solutions, such as biomaterials and biochemicals.

3. *Securing an affordable and sustainable supply of biomass.*

BIC urges EU policymakers to strengthen the EU's competitiveness and strategic autonomy by increasing the use and availability of all types of sustainably sourced biomass, including primary biomass[6].

While underutilised resources like straw, wood residues and biowaste are important feedstocks, the transition to a fossil-free, sustainable chemicals and materials sector in Europe will rely on diverse biomass sources. Depending on the region and application requirements, different sources of biomass will be used. Starches, sugars and vegetable oils derived from primary agricultural crops are the largest biomass source used today and will remain a critical part of the solution.

Europe's ability to meet the chemicals and materials sector's carbon demand through bio-based sources by 2050 hinges on a mix of advanced agricultural practices, feedstocks, technological innovation, partnerships and strong policies. The transition towards 2050 can happen without compromising food security, and by promoting both the role of industry and the primary sector.

4. *Positioning the EU bioeconomy in the rapidly expanding international market*

Europe should be the most attractive place to invest and manufacture bio-based products. It has all the prerequisites. Global competition in the technology and manufacturing sectors has increased. Several initiatives and incentives have been decided upon in the US, Brazil, China, India and at G20 level.

Bio-based solutions manufactured in Europe (and in line with high EU sustainability standards) should not be disadvantaged against bio-based solutions imported from outside the EU. Moreover, for the European bioeconomy, the data and metrics should be consistently collected and developed e.g. to measure the contribution of the bioeconomy to the EU industrial production in EU official statistics.

[6] BIC/RCI report on biomass availability by 2050, see here: https://biconsortium.eu/publication/there-enough-biomass-defossilise-chemicals-and-derived-materials-sector-2050