

# EFIB Vienna Statement 2021



Europe currently faces the triple challenge of delivering the EU Green Deal, enabling economic recovery and increasing Europe's global competitiveness. The EFIB Vienna Statement 2021 calls for European policies that deliver a confident, sustainable and competitive Europe as an innovation leader for industrial biotechnology.

## Next generation Europe: An urgent call to action

Industrial biotechnology uses biological systems across sectors and applications. It enables production of fuel to drive processes, intermediates for use in manufacturing, and ingredients for food, feed, fragrance and pharmaceuticals, amongst many others. It is a key enabling technology (KET) allowing companies to move beyond fossil sources for products and process, reducing energy use and waste, and preserving scarce resources.

Europe is at the forefront of industrial biotechnology innovation and must act urgently to translate this innovation strength into scale up and large-scale manufacturing within Europe to help meet its ambitious climate and biodiversity targets and create the next generation of competitive industry.

## Industrial biotechnology: Proving its value to society, environment and economy

Biological systems have already demonstrated their power and value in transforming existing products and processes and innovating for the future. EuropaBio's 25<sup>th</sup> anniversary celebrations throughout 2021 have highlighted industrial biotechnology landmark advances over the last quarter century, including amongst others:

- Vitamin B2 (riboflavin) manufacture (2000). 50 years of complex and low-yielding manufacture of this essential micronutrient was transformed world-wide to production via biological fermentation, requiring reduced fossil raw materials and delivering a 50-65% reduction in water use and exhaust emissions within a significant global market<sup>1</sup>.
- Industrial scale biological production of butanediol (2016). Microbial production of 1,4 BDO for use in manufacturing processes across sectors, using renewable biological materials as an energy source, resulting in a reduction of the net Global Warming Potential "Cradle to grave" by 50% in terms of CO<sub>2</sub> equivalent emissions, compared to the fossil alternative, in addition to producing biogas for national electricity supply<sup>2</sup>.
- Industrial scale biological production of next generation, zero-calorie, non-artificial Stevia sweetener (2019). This enables global demand to be met without risking *Stevia* plant extinction in the wild and results in 59% reduction in carbon footprint and 70% reduction in land use<sup>3</sup>.

These landmarks are reflected in Europe's overall economic performance from biotechnology, in 2018 contributing almost €80bn in Gross Value Added, plus 900,000 jobs and an average annual growth rate of 4.1%, twice as fast as the EU overall economy (1.9%)<sup>4</sup>.

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<sup>1</sup> Vitamin B2 shifts from chemical synthesis to exclusive biotechnological production in less than 15 years, [www.europabio25.org](http://www.europabio25.org)

<sup>2</sup> World's first industrial scale plant for production of butanediol (1,4 BDO) from renewable materials via biosynthesis (fermentation from micro-organisms), [www.europabio25.org](http://www.europabio25.org)

<sup>3</sup> Large scale microbial production of next generation, zero-calorie, non-artificial EVERSWEET™ Stevia sweetener, [www.europabio25.org](http://www.europabio25.org)

<sup>4</sup> 'Measuring the Economic Footprint of Biotechnology Industry in Europe' 2021: WifOR Institute

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## The clock is ticking for European climate and competitive ambitions

Europe, and indeed the world, has set ambitious targets. There is now less than a decade to deliver changes in Europe on a scale not seen before, reducing net greenhouse gases by at least 55% by 2030.

This is a global race. Europe must capitalise on its rich innovation to deliver new solutions as a market leader. Failure to act boldly now on industrial upscale, risks Europe becoming a customer, rather than a producer, of next generation sustainable products. This is at the cost to its own industrial competitiveness and economic development, despite a world-class research and innovation ecosystem.

A circular bioeconomy meets industrial priorities to deliver efficiency, competitiveness and sustainability. It must move from niche to large scale biological manufacturing systems across sectors, integrated into the process industry, manufacturing and recycling.

## Time is now – EFIB Vienna Statement requests

How does Europe accelerate progress towards EU Green Deal ambitions through industrial biotechnology, serving the planet, economy and society through a competitive and sustainable economic engine? European Union Institutions and Member States must build a regulatory and market framework that enables long term investment in, and growth of, its scientific and company base. Europe can then work with its global partners to deliver a healthy planet for citizens from a competitive foundation in Europe.

### Ask 1: Modernising regulation and policy: enabling impact

Europe must modernise GMO legislation, moving from a process-centric to a product-based approach. Policy and regulatory requirements for GMM<sup>5</sup>-derived food & feed products and additives should be science based, achievable and realistic, to unlock long term industrial investment in technologies, infrastructure and skills within Europe. The EU sustainable finance and taxonomy framework should recognise and support future innovation and investment that allows the bioeconomy to be part of the solution towards environmental targets and increased circularity.

### Ask 2: Education and awareness: enabling citizens

European policy makers must lead public engagement on the role of advanced solutions and technologies in helping to address climate and environmental targets. A positive narrative based on contribution from biotechnology and bio-based solutions has to move Europe towards proactive consumer and citizen demand for sustainable products and processes in their daily lives.

### Ask 3: Financing innovation: enabling technologies

EU funding mechanisms should focus on translating scientific advances into scalable products and processes to stimulate economic activity and address Green Deal goals as an innovation leader. Investment into commercial scale up of novel bio-based technologies and processes within Europe should be a priority, for impactful performance in mainstream manufacturing.

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<sup>5</sup> Genetically modified microorganisms