# EuropaBio recommendations for the Advanced Materials Act (January 2026)

Biotechnologies play an essential role in the delivery of EU goals for competitive, healthy, resilient and sustainable economies and societies. It is a driver of high value fermentation-based solutions and innovation. It is also unique as it enables the production of biologically active and structurally complex molecules that conventional chemistry cannot generally manufacture or produce efficiently. This makes biotechnology applications indispensable in health, agri-food, chemicals, manufacturing of consumer goods and more throughout our industrial and social ecosystems. It is a hallmark of success, demonstrating EU growth and benefit through innovation and contributing directly to the **EU Bioeconomy Strategy's** objectives for circular, resource-efficient and bio-based value chains. The EU must therefore urgently prioritise their scale-up and access to EU and global markets, as this will be vital for the EU to stay in the global race of clean and innovative technologies.

Advanced materials are central to the EU's objective of building a clean, competitive and resilient industrial base. In line with the OECD definition, advanced materials are rationally designed to deliver enhanced or targeted functional performance. Industrial biotechnology contributes directly to this ambition by enabling the **design, modification and manufacture of advanced polymers, composites, functional biomaterials and smart materials**, with high sustainability, circularity and security-of-supply characteristics.

The Advanced Materials Act should fully integrate biotechnology as **design, production and scalable pathway for advanced materials**, to foster EU innovation acceleration, reduce dependencies and strengthen sustainable competitiveness while supporting the transition towards bio-based and circular industrial systems. A coherent Advanced Materials Act aligned with other biotech-related initiatives, such as the **Biotech Act and the Bioeconomy Strategy**, will be essential to ensure Europe's leadership in advanced materials.

**The Advanced Materials Act must ensure biotechnology can act as a core enabler for advanced materials by:**

1. Recognising the role of biotechnology in advanced materials
2. Accelerating industrial deployment and uptake across sectors
3. Driving the EU's resilience through sustainable biotech-enabled materials

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## 1. Recognising the role of biotechnology in advanced materials

Many advanced materials are increasingly designed, functionalised or produced through biological processes. To fully harness their potential, current frameworks and definitions should fully reflect biotechnology's role as an enabling pathway, fostering regulatory consistency and certainty for innovators and supporting the **Bioeconomy Strategy's** shift towards sustainable, resource-efficient and bio-based value chains. The Advanced Materials Act must clearly embed biotechnology and bioprocessing as eligible routes for producing high-performance materials to ensure technology-neutrality and accelerate EU innovation.

EuropaBio recommends:

- Establishing a technology-neutral advanced materials scope and definition that explicitly includes materials whose performance is enabled by biotechnology or bioprocessing.
- Recognising fermentation and other bioprocesses as eligible pathways for advanced material design and synthesis.
- Ensuring that bio-based materials are fully recognised as advanced materials when they demonstrate equivalent or superior performance.

## 2. Accelerating industrial deployment and uptake across sectors

Europe has a strong scientific base in biotechnology-enabled advanced materials. Targeted support can ensure these innovations scale into competitive industrial manufacturing within the EU and complement the industrial scaling ambitions of the **Biotech Act** and other relevant initiatives. By creating coherent regulatory pathways, expanding access to biomanufacturing pilot and demonstration capacity, and fostering early markets, the Advanced Materials Act can help anchor scale-up in Europe and accelerate the industrial deployment of high-performing biotech-enabled materials across value chains.

EuropaBio recommends:

- Expanding piloting, demonstration and biomanufacturing capacity to support EU-based scale-up of biotech-enabled advanced materials, with accessible shared facilities for innovators and SMEs.
- Ensuring regulatory coherence, predictability and proportionality for biotech-enabled advanced materials across all relevant legislation.
- Establish regulatory sandboxes that are aligned and interoperable with those proposed in the Biotech Act I and complement them with single-entry regulatory points and fast-track pathways for biotech-enabled advanced materials.
- Strengthening market uptake through performance-based procurement, early market creation mechanisms and standards that enable rather than delay access.

## 3. Driving the EU's resilience through sustainable biotech-enabled materials

Biotechnology can deliver advanced materials with high sustainability, circularity and security-of-supply characteristics, thus contributing to enable cleaner and more resilient industrial value chains. Biotech-enabled materials offer substitution solutions, new functional performance profiles and EU-based production pathways that enhance economic security. The Advanced Materials Act should therefore prioritise biotech-enabled advanced materials as strategic assets for resilience and sustainability, supported by targeted skills, investment and governance.

EuropaBio recommends:

- Embedding biotechnology within EU strategic value chain and dependency assessments, recognising bioprocessing as a route to secure and diversify supply of key materials.
- Supporting EU based biomanufacturing capacity for advanced materials, bio-based production routes that enhance autonomy and reduce reliance on external suppliers.
- Mobilising specialised skills programmes and targeted finance for biotech-enabled materials.