

European Sustainable Bio-based Nanomaterials Community

## Unlock the potential of your Bio-based materials

Develop your innovation through the BIOMAC OITB services







Network of experts



Accelerate your innovation



biomac-oitb.eu

## What is Biomac?



BIOMAC is a leading European Open Innovation Test Bed (OITB), originating from the omonymus Horizon 2020 project. We are your collaborative ecosystem for the upscaling, market preparation, and production of nanostructured bio-based materials (NBMs). Our goal is to support you in transitioning from laboratory validation (TRL 4) to prototypes in industrial environments (TRL 7), accelerating your innovation.

## What do we offer?

BIOMAC services are open to SMEs, industries, start-ups, universities, research institutions, and other stakeholders from across Europe and beyond. These services are intended for those operating in the field of nanostructured bio-based materials (NBMs). We guarantee non-discriminatory access under fair conditions and prices, with transparency regarding the security and safeguarding of intellectual property rights (IPR). Our end-to-end solutions are accessible through a Single-Entry Point (SEP) tha reduces administrative burden and connects you with a multitude of expert scientists from across Europe at competitive prices.

## What services?

**Fractionation** of diverse biomass (e.g., lignocellulose) using processes like organosolv for the production of high-purity cellulose, lignin, and hemicellulose. **Production** of Chemical Intermediates and Bio-based Monomers: Development and optimization of processes for the production of lactic acid, sugar alcohols, and glycols/diols from biomass-derived sugars.

**Comprehensive support** for the development and production of polymers like polylactic acid (PLA) and copolymers, and advanced nanomaterials such as fibrillated nanocellulose (NFC), nanolignin, and bacterial nanocellulose.

**Expertise** in coating formulation, additive manufacturing (3D printing of thermoplastics and photopolymers), reactive extrusion and compounding, and nano-imprint lithography (R2R). We also offer a wide range of **complementary services** such as: quality control and characterization, optimization of industrial processes and performance forecasting, standardization compliance, innovation management, business planning and market analysis, intellectual property rights (IPR) management, health and safety (H&S) and regulation, data management, sustainability assessment (LCA/LCC), verification of circularity and support for optimizing procedures toward a circular bioeconomy.

Submit your request and we will identify the most appropriate partners and provide you with a customized quote

biomac-oitb.eu