BIONTIER

PRESS RELEASE YEAR ONE

Circular Bio-based Europe Joint Undertaking

Co-funded by the European Union

UK Research and Innovation

Bio-based Industries Consortium

BIOntier Project – Grant Agreement No. 101155925

THE BIONTIER PROJECT CELEBRATES ITS FIRST ANNIVERSARY

BreakIng frOntiers in sustainable and circular biocomposites with high performance for multi-sector applications

HORIZON-JU-CBE-2023-IA-07
Duration : 36 months
Project Budget : 8 345 472,50€
Granted : 7 017 866,00€

On October 2nd and 3rd 2025, the BIOntier consortium marked its first year of collaboration with a General Assembly meeting hosted by the FIAT Research Centre (Centro Ricerche Fiat - CRF) and Stellantis in Turin, Italy. Over two days of dynamic discussions, partners reviewed the progress achieved so far, presented advances in the six industrial use cases, and outlined the project's roadmap for the coming phases.

BIOntier is an European Union initiative uniting 25 partners across 12 countries to develop an integrated industrial platform for next-generation bio-based composites. These advanced materials are set to drive high performance, recyclability, and sustainability, supporting Europe's transition to a circular, low-carbon economy.

The project is supported by the Circular Bio-based Europe Joint Undertaking and its members under grant agreement No 101155925 and UKRI grant agreement No 10137600.

Significant progress has been achieved within the BIOntier project over the past months. For example, the team at Universidad Carlos III de Madrid (UC3M) is advancing the integration of Safe and Sustainable by Design (SSbD) principles into the project's materials and processes, focusing on reducing environmental impacts while optimising performance. UC3M is also leading extensive experimental testing on bio-based composites, combining laboratory analysis and high strain-rate characterisation to refine material behaviour and support predictive modelling.

In parallel, IRIS is coordinating the development of a PLA/hemp biocomposite demonstrator, bringing together several partners to design, manufacture, and test an innovative prototype enhanced with sustainable additives. TECNALIA and BCMaterials are conducting material preparation and property testing, while academic partners are contributing advanced simulations to optimise mechanical performance.

In addition, Fraunhofer and project partners have defined the framework for Life Cycle Assessment and cost analysis, ensuring that BIOntier's solutions are environmentally responsible and economically viable throughout their entire lifespan.

As BIOntier moves into its second year, the project will focus on scaling up pilot demonstrations, validating material performance, and advancing industrial integration. Special attention will be given to applying the Safe and Sustainable by Design (SSbD) approach and conducting comprehensive life cycle and techno-economic assessments to ensure that sustainability is embedded from concept to market.

In parallel, BIOntier will intensify its collaboration and clustering activities with other European projects such as GIANCE, SALIENT, THERMOFIRE, BIO-UPTAKE, ALCHEMISST and FURIOUS - to exchange best practices, harmonise methodologies and standardisation activities, and strengthen Europe's leadership in sustainable materials. New joint workshops and international events are planned to foster dialogue with stakeholders, brand owners, investors, and policy actors.

Beyond its technological ambitions, BIOntier aims to generate tangible social and economic impact by promoting local value creation, industrial competitiveness, and environmental responsibility across Europe.

With strong progress and a growing network of partners, BIOntier continues to establish itself as a flagship European initiative driving the future of safe, circular, and high-performance bio-based composites.

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