BIONTIER

PRESS RELEASE

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

LAUNCH OF THE BIONTIER PROJECT

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€

The European BIOntier project was launched on 10 and 11 October at the premises of the FORTH research centre, the project coordinator, in Heraklion, Crete, Greece. It brings together a consortium of 25 partners from 12 countries. The aim of the project is to establish an integrated industrial platform dedicated to the design and production of new-generation bio-based composites (BioC).

MATERIALS WITH ADVANCED PROPERTIES

These materials are characterised by their durability, lightness and recyclability, making them suitable for a range of sectors including automotive, aerospace, energy - particularly hydrogen - and water treatment.

Thanks to advanced thermal, mechanical and chemical properties, these BioCs are designed to offer enhanced resistance to impact, corrosion and chemicals, and to tolerate high temperatures.

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.

OPTIMISING MANUFACTURING PROCESSES

One of BIOntier's key ambitions is to maximise the environmental and industrial impact of its innovations. To achieve this, the project is committed to optimising materials manufacturing processes, with the aim of improving the synthesis and stability of composites while reducing their ecological footprint. By supporting a circular bioeconomy, BIOntier is committed to transforming technological advances at intermediate maturity levels (TRL 4 and 5) into large-scale industrial production capacities (TRL 6 and 7), thereby strengthening European competitiveness in the global market for sustainable materials.

SIX USE CASES TO ILLUSTRATE CONCRETE APPLICATIONS

BIOntier focuses on six specific use cases (UC) that illustrate the capabilities and adaptability of biobased composites. These use cases include vehicle components and high value-added industrial equipment:

- UC1: Cockpit dashboard with semi-structural trim for the Jeep Renegade, combining aesthetic design and light weight.

- UC2: Structural impact absorber for the Egea Hatchback model, designed to enhance safety in the event of a collision.

- UC3: Battery pack housing, including top covers and base plate for several models designed to improve battery safety while remaining lightweight.

- UC4: Access panel for TAI aircraft, adapted to the thermal and mechanical constraints of aviation.

- UC5: Hive low-pressure hydrogen storage tank, designed to support the hydrogen economy with high resistance.

- UC6: High-pressure tanks for reverse osmosis water filtration, designed to enhance the durability of purification processes.

A STRATEGIC ALLIANCE TO ACCELERATE TIME TO MARKET

These applications are designed to be easy to manufacture, test and recycle, incorporating advanced bioconstruction processes that optimise performance and durability. By bringing together major industries, SMEs, research centres and universities, BIOntier is a strategic alliance that aims to accelerate the time-to-market for high-performance bio-based solutions. This collaborative approach strengthens the European Union's ability to position itself as a leader in the bioeconomy and sustainable technology, with positive industrial and societal spin-offs, contributing to a more environmentally-friendly economy.

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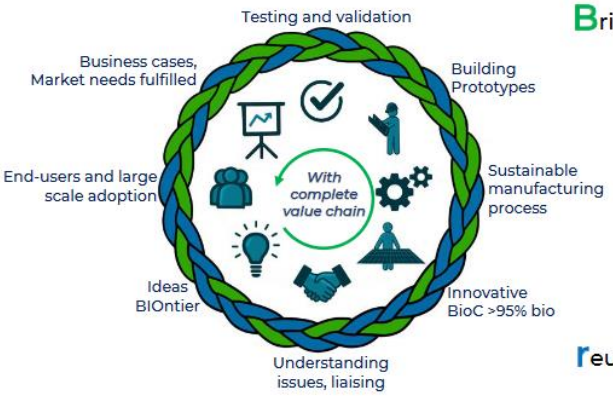

Bright bio-based solutions

Innovative BioC applications

Optimised manufacturing process

novel BioC- end products

Tailored made-materials compositions.

Integral sustainability

environmentally friendly

reuse and recycling

PRESENTATION OF THE CONSORTIUM

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