

CONTEXT:

Nowadays, biobased materials have demonstrated their ability to be good candidates to replace petroleum derivatives, in various application areas. However, due to differences in physical and thermochemical properties, a direct replacement of the current material with newly developed biobased is often a mistake.

Thus, the Bio-Uptake project offers a novel approach, based on modularity and smart combination.

OBJECTIVE:

The general objective of Bio-Uptake project is to ensure a sustainable uptake (increase the use in a 39%) of bioplastic composites through boosting a twin green and digital transformation in the European manufacturing industry.

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CONSORTIUM:





























The BIO-UPTAKE project has received funding from the European Union under the grant agreement n°101057049

plastic transformation
processes to pave the way for
the large-scale **UPTAKE** of
sustainable bio-based
products

BIO-UPTAKE GROUND-BREAKING CONCEPTS:

Achieving material **FUNCTIONALITY** through the composite lay-up, with intermediate formats allowing better influence in the eco-design and customization of properties, allowing to meet technical quality criteria and requirements.

Introducing process **DIGITALISATION**by building up a digital hybrid twin,
that allows the interoperability of
manufacturing technologies for the
use of biobased materials.

Ensuring a **SUSTAINABLE** end-of life by introducing scientific novelties in the materials that permits remanufacturing and a controlled de-manufacturing.



APPLICATIONS:

Bio-Uptake solution will focus scientific and technology efforts on developing flexible manufacturing processes to produce biobased end-products for:



CONSTRUCTION



MEDICAL



PACKAGING



