

## 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

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

## BIO-UPTAKE GROUND-BREAKING CONCEPTS:

1

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.

2

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




3

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**

The Bio-Uptake consortium is present in 7 countries:

