BioPackMan

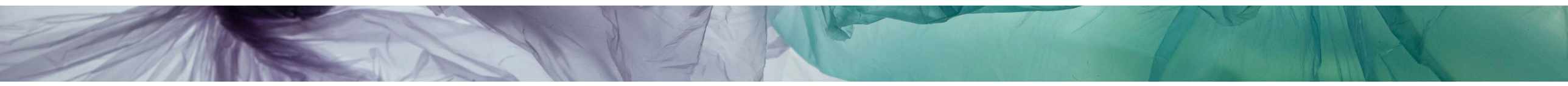
BIODEGRADABLE PACKAGING MATERIALS ADVANCING CIRCULARITY, SUSTAINABILITY & ECO-INNOVATION

biopackman.eu

About the project

A New generation of biodegradable packaging materials

BioPackMan pioneers an innovative approach **to packaging design** by merging **biodegradable materials** with advanced modelling tools. The project focuses on **replacing conventional plastics** with modular, **eco-designed solutions** tailored for real-world use and environmental performance.



Objectives

Sustainable Bio-Polymers

Development of competitive and sustainable bio-degradable polymers and blends

Smart Bio-Additives

Sustainable additives for functional performance and tuneable biodegradability

Digital Bio-Design

End-to-end digital toolset to accelerate the design and virtual screening of biodegradable compounds

NextGen Biopackaging

Biodegradable high-performance packaging intermediates

Case Studies

Scientific Validation of Circular Packaging Solutions

To ensure that our materials and models are robust, scalable, and aligned with market needs, we will test our approach through a set of **strategic case studies**. These case studies reflect a variety of product sectors, material states, and packaging formats, helping us to explore circularity from multiple angles.

Rigid vs Flexible packaging

Liquid vs Solid formats

Food & Detergents

Expected Results

- Reduce CO_2 emissions by up to 50–75% compared to fossil-based packaging
- Strengthen EU market leadership in biodegradable packaging
- Create new eco-jobs in materials science, recycling, and digital manufacturing
- Advance European Green Deal, Circular Economy Action Plan, and Fit for 55 targets

Project details

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