



PRESERVE

**HIGH PERFORMANCE SUSTAINABLE BIO-BASED PACKAGING
WITH TAILORED END OF LIFE AND UPCYCLED SECONDARY USE**



PRESERVE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952983.



MAIN OBJECTIVES AND EXPECTED IMPACT

At PRESERVE we believe that everything deserves a better chance. For this, we will enhance bio-based packaging in terms of properties that currently limit the application of bioplastics as well as in terms of end of life. Then, we will develop upcycling technologies of plastics for food and drinks packaging transforming them into new materials or products of better quality or environmental value, ensuring that micro-plastics are avoided, with personal care and transport packaging applications. Finally, we will develop novel standards and certification schemes applicable to packaging materials made from recyclable and biodegradable bio-plastic.

PRESERVE - Everything deserves a better chance

Overall project budget: € 7 999 576,25

Start date: 1 January 2021

End date: 31 December 2024

Total months: 48

PARTNERS INFORMATION

IRIS



Private company | Spain | iris-eng.com

Acting as Project Coordinator, IRIS Technology Group is an advanced engineering group specialised in the manufacture and integration of Process Analytical Technology (PAT)-based real-time quality monitoring solutions for the process industries and IoT systems for smart manufacturing, predominantly targeted at the food, pharmaceutical and chemical industries. IRIS is leading WP1 on ethics requirements and WP9 on project management.

CENTEXBEL



Research Organisation | Belgium | centexbel.be/

The Centre Scientifique & Technique de l'Industrie Textile Belge (CTB) is the Belgian scientific and technical centre for the textile and plastic industry, a membership organisation with strong links to the majority of the textile and plastic conversion companies. CTB is leading WP4 on upcycling of core materials and blends.

ALBSTADT-SIGMARINGEN UNIVERSITY



Higher Education | Germany | hs-albsig.de/

Acting as a project scientific and technical manager, the faculty of Life Sciences scientific staff at the Albstadt-Sigmaringen University (ASU) is very experienced in the development and characterisation of food and food packaging. This includes the surface modification of bio-based films as well as the incorporation of active packaging constituents and the full characterisation of packaging relevant properties. ASU will actively contribute to WP2, WP3, WP4, WP5, WP6 and WP8.

AIMPLAS



Research Organisation | Spain | aimplas.es/

The Technological Institute of Plastics (AIMPLAS) is a private, non-profit organization involved in the technological research and development on thermoplastic and thermosetting plastic materials & products, its transformation processes and their recyclability and sustainability. AIMPLAS is leading WP3 on the development of bio-based coatings and adhesives for tailoring packaging properties and EoL.

PARTNERS INFORMATION

FRAUNHOFER IVV



Research Organisation | Germany | ivv.fraunhofer.de/1

Fraunhofer is the leading organisation for applied research in Europe, undertaking contract research on behalf of industry, the service sector and the government. It will bring its expertise in development of biobased packaging materials and multilayer films in WP3 and WP6.

NEXT TECHNOLOGY TECNOTESSILE



Research Organisation | Italy | tecnotex.it/

NTT is a private non-profit research organization involved in research and demonstration projects on textile processing, circular design and bio-based materials at regional, national and European level. NTT is leading WP7 on safety, environmental and economic sustainability assessments.

ITENE



Research Organisation | Spain | itene.com/

ITENE is non-profit Research Centre integrated with businesses, entities and institutions related to Packaging, Transport and Logistics. Its mission is to generate scientific and technological knowledge and adding value to companies through the implementation of R+D+I in these areas. It will act as task leader of those activities related to release of microplastics, circularity assessment and food safety and regulations in WP3 and WP7.

UNIVERSITY OF BOLOGNA



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF CIVIL, CHEMICAL, ENVIRONMENTAL
AND MATERIALS ENGINEERING

Higher Education | Italy | unibo.it/

The Alma Mater Studiorum – Università di Bologna (UNIBO) is one of the most important institutions of higher education across Europe. Research and Innovation are a priority of the University mission. Using its biotechnology and polymer chemistry competences, UNIBO will have a strong role in material recycling in WP5.

PARTNERS INFORMATION

PLANET BIOPLASTICS



Private Company | Italy | planetbioplastics.com/

Planet Bioplastics (PLANET) is an innovative start-up, spin-off of the University of Pisa. PLANET will take care of pilot and industrial production of compounds to be used for production of items by injection moulding, cast extrusion and blow moulding extrusion. It will contribute to set optimal conditions for detergent separation of multi-layers materials and will contribute to optimize biobased polymers formulation in WP5.

CARBIO LICE



Private Company | France | carbiolice.com/en/

Carbiolice is a start-up tackling the problem of plastic pollution. It has developed an additive that makes bio-based plastics compostable, even in domestic conditions. This innovation is aimed at plastics and packaging applications which cannot be recycled. In WP4, Carbiolice will introduce its enzymated masterbatches to PLA compound and core materials to reach biodegradation under mild conditions that will be tested in WP5.

BOSTIK



Private Company | France | bostik.com/

Bostik designs, produces and commercializes lamination adhesives, cold seal coatings, heat seal extrudable co-polyesters, lacquers and reclosing adhesive for lidding films. It will be contributing to WP3, with the development of laminating adhesives and the subsequent production of the selected candidate formulations at laboratory or small pilot scale, to be used by partners for pilot scale lamination trials, and for the production of packaging laminate prototypes. Bostik will also contribute with its specific expertise to the packaging design in WP2.

SÜDPACK



Private Company | Germany | suedpack.com/

The Südpack Packaging Group is one of the leading manufacturers of co-extruded flexible and rigid films, high performance laminates and bags in Europe. SÜDPACK is leading WP5 on upscaling and validation of upcycled packaging, textiles and composites from primary and secondary raw materials.

PARTNERS INFORMATION

GRAPHIC PACKAGING INTERNATIONAL



Private Company | Belgium | graphicpkg.com/

Graphic Packaging International (GPI) is a leading global provider of paper-based packaging solutions including folding cartons, cups, foodservice packaging, cooking solutions and multipack machinery. GPI is vertically integrated with production of kraft, bleached and recycled paperboard in the USA. Sustainability and innovations are key drivers for GPI. GPI will mainly be involved in WP5 where they will upscale the production of fibres-based packaging with bio-based coatings that will be validated by DANONE RD.

OWS



Private Company | Belgium | ows.be/

OWS is a stock company, active in the engineering, construction and operation of biogasification plants. OWS has extensive knowledge in the anaerobic digestion on several types of urban biowaste, energy crops and industrial side streams. Moreover, the OWS contract research laboratory division has a longstanding experience in the field of compostability testing and biodegradation in all kind of environments (compost, soil, anaerobic, freshwater and marine conditions). OWS is leading WP5 on biodegradation, compostability and materials recycling.

SIBO



Private Company | Slovenia | sibo-group.eu

SIBO G. is one of Europe's biggest manufacturer of plastic closures, caps and containers for pharmacy, as well as medical devices and technical parts for different industries. SIBO G. acts as full solution supplier in global market. In WP6, SIBO G. will be testing and validating new products for cosmetics and personal care from upcycled bioplastics on injection moulding production.

ROMEI



Private Company | Italy | romeireplastics.com/

With 40 years of experience, ROMEI has built a deep and efficient know-how on plastic recycling processes: the company collects waste and by-products of the plastic industry and transforms them into raw materials (flakes and granules). In WP2, ROMEI will provide insights into the current EoL situation of plastic packaging especially in terms of recyclability. They will also contribute to WP4, WP5, WP6 and WP7.

PARTNERS INFORMATION

DENIMX



Private Company | Netherlands | denimx.nl

DenimX is a development and production company of products made out of recycled textiles. Its main aim is to add value to discarded waste streams and create good-looking, functional and commercially feasible products in large volumes by combining textile fibers with bio-based binders into a re-usable, recyclable composite material. It will have a strong role in the creation and development of technological and commercially viable solutions for upcycling of discarded materials in WP5.

CROWDHELIX



Private Company | UK | crowdhelix.com/

The CrowdHelix Network (CHX) is a pan-European Open Innovation Network that enables Research Technology Organisations (RTOs) and businesses to collaborate, innovate and grow. The network is structured around virtual technology clusters known as Helixes. In WP8, CrowdHelix will help PRESERVE address parts of the impact section by managing the stakeholder engagement and clustering activities.

KNEIA



Private Company | Spain | kneia.com/

KNEIA is a Spanish SME that works with public companies, research institutions, government agencies and investors to provide assessment services on innovation management, dissemination and communication strategies, knowledge transfer, and implementation of scientific technological structures worldwide. KNEIA is leading WP8 on value chain roadmap and innovation impacts and acts as IPR & Exploitation manager.

EUROPEAN BIOPLASTICS

[europeanbioplastics](https://europeanbioplastics.org/)

Industry association | Germany | european-bioplastics.org/

European Bioplastics (EUBP) is the industry association representing the bioplastics industry in Europe across the entire bioplastics value chain. The association's key objectives are to serve as a contact and network platform, as a primary resource for information about the bioplastics industry, and as a catalyst for advancing the objectives of the growing bioplastics industry as a whole. On the political level, EUBP is working closely together with businesses, institutions, EU policy makers, and other key stakeholder groups to improve the policy and economical framework for the bioplastics industry in Europe. EUBP is leading WP2 on definition of specifications for the upcycled bio-based packaging.

PARTNERS INFORMATION

DANONE RD



Private Company | France | danone.com/

DANONE RD is a leading global food & beverages company with a health-focused portfolio of iconic global and unique local brands across the world. It is committed to deliver products to all consumers around the world in a safe, convenient, innovative & fully recyclable way. In WP2, DANONE RD will support the definition of the packaging requirements and in WP6, DANONE RD will characterize packaging developed in the framework of the project and validate its suitability for storing different food products.

ISDIN



Private Company | Spain | isdin.com/

ISDIN is a skin care brand based in Barcelona and founded in 1974. With leading cosmetic & pharmaceutical research, they create advanced formulas with innovative textures and proven efficacy. For the PRESERVE project, they will test and perform validation of bio-based packaging solutions with the packaging from SRM. They will finally contribute to the consumer perception study and exploitation and dissemination planned in WP8.

FERRERO



Private Company | Italy | ferrero.com/

The Ferrero Group is an Italian multinational confectionery company and a fully family-owned business in its third generation. Ferrero products are sold in more than 170 countries and they have more than 44,000 employees around the whole world. In 2019, the Ferrero Group announced its commitment to making 100% of its packaging reusable, recyclable or compostable by 2025. In the PRESERVE project, they will validate the demonstrators produced with the technologies developed in the project.

- **26** Partners
- **9** Countries
- **7** Research and Technology Organisations
- **10** Small and Medium Enterprises





Contact information

 Project web

<https://www.preserve-h2020.eu>

 Project page in Cordis

<https://cordis.europa.eu/project/id/952983>

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