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ECOBIOCAP
ECOEFFICIENT BIODEGRADABLE COMPOSITE ADVANCED PACKAGING

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Abstract

EcoBioCAP will provide the EU food industry with customizable, ecoefficient, biodegradable packaging solutions with direct benefits both for the environment and EU consumers in terms of food quality and safety. This next-generation packaging will be developed using advanced composite structures based on constituents[1] (biopolyesters, fibres, proteins, polyphenolic compounds, bioadhesives and high-performance bio-additives) derived from food industry (oil, dairy, cereal and beer) by-products only and by applying innovative processing strategies (blends and multilayers at different scales) to enable customisation of the packaging's properties to fit the functional, cost, safety and environmental impact requirements of the targeted fresh perishable food (fruit and vegetables, cheese and ready-to-eat meals). Demonstration activities with SMEs and industrial partners will enable the EcoBioCAP technology to be optimised in terms stability, safety, environmental impact and cost- effectiveness before full exploitation. The development of a decision support system for use by the whole packaging chain will make the EcoBioCAP technology accessible to all stakeholders. Extensive outreach activities will not only disseminate the project results to the scientific community but also ensure that consumers and end-users are informed of the usage conditions and benefits of such bio-degradable packaging and how it should be disposed of.

[1] ***The definition of the term" packaging constituent"*** *used in this document is the following according to EN 13193: "constituents are parts from which packaging are made and which cannot be separated by hand or by using simple physical means". From "Essential requirements for packaging in Europe: a practical guide to using CEN standards". 2005. Ed. EUROPEN (the European Organization for Packaging and the Environment), Brussels, Be.*