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BOOK OF ABSTRACTS*

* Please note if you do not find a set of abstracts for a Concurrent Session, this is because we did not receive a set of abstracts for that session.

CS6.4.3

Composites materials for food packaging and from food industry by-products only : the EcoBioCAP EU project

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EcoBioCAP project aims to provide the food industry with customizable, eco-efficient, biodegradable packaging solutions with direct benefits both for the environment and consumers in terms of food quality and safety. This next-generation packaging is developed using advanced composite structures based on constituents (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 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 makes the EcoBioCAP technology accessible to all stakeholders. Extensive outreach activities 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.

EcoBioCap project concept: *The first fully biosourced and biodegradable trays of EcoBioCAP european project have been produced by pilot-scale injection-moulding with the collaboration of Fuerstplast (France). These trays are composed of bacterial polyhydroxybutyrate-co-valerate (PHBV) and wheat straw fibers (WSF up to 30%w/w).*