

Prospects for bio-degradable packaging

A PROLIFIC workshop to highlight approaches and projects towards more sustainable and functional food packaging

This workshop, held on 11-12 September 2019, was dedicated to one particular aspect of the PROLIFIC project: the transformation of agro-industrial residues into packaging materials.

Illycaffè as partner of the PROLIFIC consortium hosted this workshop and gathered an audience from research and industry. Participants exchanged on state of the art, latest research and trends in bioplastics, especially for food packaging material.

Bio-based plastics and functional ingredients

Speakers nicely exemplified the various options for utilizing biomass-derived compounds in food packaging.

It is possible to extract and chemically modify molecules from feedstock which can potentially be used as new monomer for the production of bio-polymers. Such bio-plastic can replace mineral oil based polymers in packaging applications.

This can also be achieved by replacing part of

the polymer matrix with organic fillers extracted from biomass. An approach the PROLIFIC project pursues to produce e.g. more sustainable coffee capsules, as Annamaria Celli from University of Bologna reported.

Further ambitions are directed towards improving the shelf-life of perishable goods by functional packaging. The encapsulation of active compounds like polyphenols, or coatings containing chitosan potentially bring anti-bacterial, anti-fungal or antioxidant properties.

Regulation rules

Various speakers highlighted the importance of regulation to eventually promote the use and production of alternative materials. Particularly the Single-use-plastic regulation is challenging with respect to the definition of bioplastics.

Careful adaptation of legislation is key. Otherwise investment decisions towards bio-based plastics are put at risk.



Further info and presentations are available at our website.
www.prolific-project.eu/illy-workshop