

Final Report

Project acronym: *BIOFOODPACK*

Project number: 4242

M-ERA.NET Call 2016

Period covered: 01/03/2018 to 31/08/2021

Publishable project summary

BIOFOODPACK was a project designed to develop a sustainable biocomposite food packaging material to actively interact with foodstuffs, leading to improved food safety with minimal processing, reducing food loss and waste. Antimicrobial and antioxidant properties of natural resources was combined with different fillers to achieve water resistant materials with enhanced mechanical and gas barrier properties and electrically conductive for *in-pack* sterilization by pulsed electric fields.

BIOFOODPACK developed food packaging material based on abundant recyclable and biodegradable biopolymers, which were carefully applied to actively protect food targeting the reduction of food waste, a huge nowadays problem. The implementation of packaged food sterilized at low temperature was attained at laboratory scale for validation of the idea. A multidisciplinary team worked interactively to generate innovation but faced some constrains in developing market exploitable products.