

FLHEA

FLAX AND HEMP ADVANCED
FIBER BASED COMPOSITES

Upscaling and modification of micro and nanoreinforcements based in Hemp and flax, and its subsequent processing to obtain **composites with improved properties.**



The research leading to these results has received funding from the European Union's Seventh Framework Programme managed by REA-Research Executive Agency under grant agreement 613971

Background

Agriculture is one of the biggest sectors in Europe, representing a gross value added around EUR 148 billion, employing almost 25 million people in the EU-27(2011). However, this sector faces nowadays several challenges: competition with cheaper products from other countries, lower margins, and stringent policies, while keeping required productivity, safety and sustainability within EU.

Development of a competitive and sustainable agriculture will not be possible without providing the tools to valorize its products through novel products and techniques.

Nowadays, ecological concern has resulted in a renewed interest in materials derived from renewable resources, like natural fibres. Although the demand for natural fibers is growing worldwide and its price is increasing, annual plants such as jute, sisal, kenaf, flax or hemp require further development to provide novel products with improved properties.



Project's objectives

Packaging industry has a huge interest in reducing packaging materials and associated wastes, biodegradable materials have been evaluated for this application.

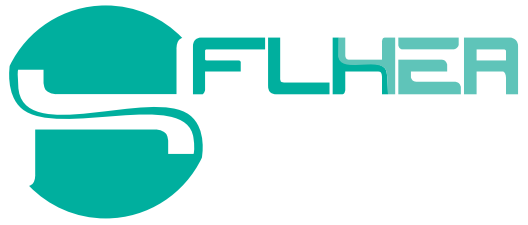
However, the use of biodegradable films for food packaging has been strongly limited because of the poor barrier properties and weak mechanical properties shown by natural polymers.

A possible strategy to increase its properties is the development of fibre based bio-composites.

FLHEA will use background results from previous projects to provide a novel range of surface modified reinforcements.

The project will focus on the upscaling and modification of micro and nanoreinforcements based in Hemp and flax, and its subsequent processing to obtain composites with improved properties.





Consortium



www.flhea.eu

Project Coordinator:
Packaging, Transport & Logistics Research
Center (ITENE)
+34961820000 info@flhea.eu