Contract No: T6YBP-00006-PHRESCO

Title: New innovative composite products from the recycling of waste materials from agricultural and physical resources

Duration: **28/02/2020-31/10/2023** 

## Abstract:

The project concerns the recycling and reuse of waste from agricultural crops (corn, sunflower, and industrial hemp) and marine natural resources (Posidonia leaves-algae) for the production of value-added products, thus contributing to the promotion of the circular economy. These materials are significant quantities of biomass, which today remain largely unused.

The goal is to produce a three-layer composite product of the "sandwich" type where the core material will be particleboard from agricultural crop residues and the outer surface materials (covering) will be plates of Posidonia leaves. Such a three-layer product will allow to create boards with new surfaces of original aesthetics and with improved surface properties (e.g. water resistance), which cannot be achieved by lignocellulosic materials. New adhesives will be used, derived from raw materials of plant origin, for the production of all board types in the project. Such adhesives will be developed by the project partners. The final board products can be used in a variety of applications including furniture, interior construction, but also useful objects.

CHIMAR acts as the project coordinator and its technical role includes the development and evaluation of the new particleboards from agricultural residues, of the novel adhesives used in their production as well as of the novel "sandwich" composite.

The project is co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation (EPAnEK 2014-2020) as well as by private funds, within the framework of Special Action Call "Industrial Materials".





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