## Title: <br> Integrated exploitation of agricultural residues wastes from traditional and novel cultivations in the production of high added value products

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

## Abstract:

The objective of the project is the production of innovative and eco-friendly composite wood-based panels using the wastes of olive cultivation as well as the residues of the primary use of industrial cannabis (hemp), and new adhesives made from raw materials of plant origin. Specifically, waste from olive cultivation (small olive branches), and olive growing (leaves and olive kernels) as well as waste from industrial hemp cultivation (inner woody part of the plant stem, leaves and seeds), before and after the removal of their chemical components which may be useful in other high value applications, will be used in the manufacture of composite wood boards. The woody materials (olive branches and hemp shoot) will be used for replacement of virgin wood in the production of particleboard, while the remaining non-wood materials will be used as components of the gluing mixture in the production of plywood panels. For all types of composite wood panels to be produced, new protein adhesives will be developed and applied as bonding elements.

The project aims at the integrated management and exploitation of the studied waste in the production of high added value products as well as at the development of new "green" composite products meeting the needs of the market and fulfilling the principles of the circular economy.

CHIMAR acts as the project coordinator and its technical role includes the development and evaluation of the (a) novel adhesives and (b) new particleboard and plywood from agricultural residues.

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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