

Development of a prototype cross-laminated timber panel with local timber to improve the sustainability of building construction

Summary

The project consists of the fabrication of a prototype cross-laminated timber (CLT) panel with timber from Catalan pines, which complies with the upcoming European regulations and is competitive with the panels that are already being fabricated in central European countries. One key point in the development of the project will be the selection of the adhesive that glues the layers together. Adhesives must always comply with the specifications of the European regulations for structural timber.

Objectives

The objective of the project is to fabricate at least one type of CLT prototype panel. CLT fabrication will increase the competitiveness of the sector, particularly against European competitors. It will diversify production (since sawn timber is mostly used in packaging), and innovate the fabrication of locally sourced timber. CLT fabrication will generate demand for quality sawn timber, thus positively impacting all links of the forest to industry chain. Fabrication of the panel is the first step towards starting a high-capacity manufacturing facility.

Description of project activities

The project is structured in several distinct activities. First, the source material will be selected and studied in terms of properties, design, development and characteristics of the future prototype and its fabrication process. Then, laboratory tests will be performed at the timber technology laboratory of the Institut Català de la Fusta, and the costs of production will be analysed.

Expected results and practical recommendations

Expected results of the project are the fabrication of a panel and the preliminary implementation of an industrial production process tailored to the requirements of the product. We will also obtain the physical and mechanical characteristics of the material.

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Keyword-category

Climate and climate change
Farming / forestry competitiveness and
Forestry

Territorial scope

Province

Lleida
Girona
Barcelona

County

Solsonès
Selva
Berguedà

Project dissemination (publications, seminars, multimedia...)

Participació en jornades tècniques

Project website

www.serradoraboix.com

Other project information

Project period

Starting date (month-year): Maig 2017

End date (month-year):

Project status: *Ongoing*

Approved budget

Total budget: 152.916,00 €

Funding source DARP: 63.628,25 €

Funding source EU: 48.000,26 €

Own funds: 41.287,50 €

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Basic regulation: Ordre ARP/96/2016, de 27 d'abril, per la qual s'aproven les bases reguladores dels ajuts a la cooperació per a la innovació a través del foment de la creació de grups operatius de l'Associació Europea per a la Innovació en matèria de productivitat i sostenibilitat agrícoles i la realització de projectes pilot innovadors per part d'aquests grups, i es convoquen els corresponents a 2016.

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