New modular construction system based on panels fixed to each other and pieces of heavy wooden framework.



The project aims to develop new models of prefabricated ultra-lightweight panels consisting of a combination of solid wood products, wood-based products and the use of thermal and acoustic insulation. The application of a tongue and groove system to assemble panels to each other and solid pieces of traditional heavy wooden framework, emulating a semi-heavy framework, will allow the development of a new innovative construction system aimed at modular construction, quick assembly and with enormous versatility and adaptation to different designs and types of construction.

Just started

The structural characterisation of the panels will be carried out by means of mechanical laboratory tests, as well as thermal, acoustic and watertightness characterisation by analytical means.

DETAILS

ORIGIN OF WOOD

Forest

TYPE OF WOOD

Stemwood

KIND OF WOOD CONCERNED

Sawn timber, glued laminated timber, wood-cement boards, particle boards, OSB

IMPACT ON ENVIRONMENT & BIODIVERSITY

Positive

INCOME EFFECT

Positive: decreased building time

EXPLOITATION POTENTIAL

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HUB

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ECONOMIC IMPACT

Possibility of modular construction

SPECIFIC KNOWLEDGE NEEDED

None

MOBILIZATION POTENTIAL

5-10 m3 / building

SUSTAINABILITY POTENTIAL - VALUE

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EASE OF IMPLEMENTATION

Difficult

EASE OF IMPLEMENTATION - EVALUATION

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KEY PREREQUISITES

Building quality lightly decreased

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

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JOB EFFECT

Positive: increased efficiency of materials

COSTS OF IMPLEMENTATION (EURO - €)

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MORE DETAILS

CHALLENGE ADDRESSED

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DOMAIN

Wood construction industry

TYPE OF SOLUTION

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KEYWORDS

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DIGITAL SOLUTION

No

INNOVATION

Yes

COUNTRY OF ORIGIN

Spain

SCALE OF APPLICATION

National

START AND END YEAR

2018 - 2020

CONTACT DATA

OWNER OR AUTHOR

REPORTER

amatex@amatex.es

REFERENCES AND RESOURCES

MAIN WEBSITE

http://www.amatex.es

RESOURCES

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PROJECT WEBSITE

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PROJECT REFERENCE

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PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood

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