High Efficiency Light Panel (HELP), a new wood-base panels system.

The aim of the project is to develop a construction system known as High Efficiency Light Panel (HELP). Consists of a set of innovative solutions based on a mixture of lightweight timber framing and cross laminated timber (CLT), for the manufacture of "Zero Emission" walls, slabs and roofs.

There is an improvement of the structural capacity of the construction system that allows more height (3-4 floors) than with the traditional lightweight building. The positioning of a three-layer or CLT board on the inside of the walls acts directly as a vapour barrier, saving the cost of installation.

The new building solutions are based on wooden or wood-base panels which will be subjected to tests, analytical calculations and numerical approximations for their structural, thermal, acoustic, watertight and fire resistance characterization. In addition, its environmental characterization (CO2, reutilization) will be carried out.
A solution with the new construction system has been defined for use in slabs, walls and roofs. Spreadsheets have been developed to obtain thermal transmissivity, surface and interstitial condensations, sound absorption and structural capacity.

DETALJI

PODRIJETLO DRVA

Šuma

VRSTA DRVA

Deblo

ODGOVARAJUĆA VRSTA DRVA

Sawn timber, KVH

UTJECAJ NA OKOLIŠ I BIORAZNOLIKOST

Positive

UČINAK NA PRIHOD

Positive: decreased building time

POTENCIJAL ISKORISTIVOSTI

--

SREDIŠTE

--

GOSPODARSKI UČINAK

Increase of the load-bearing capacity of the building by 30% approximately

POTREBNA POSEBNA ZNANJA

High knowledge needed about similar construction systems

POTENCIJAL ZA POVEĆANJE UPORABE DRVA

10-20 m3 / house

POTENCIJAL ODRŽIVOSTI - VRIJEDNOST

--

JEDNOSTAVNOST PROVEDBE

Medium

JEDNOSTAVNOST PROVEDBE - EVALUACIJA

--

KLJUČNI PREDUVJETI

--

VRSTA DOGAĐAJA NA KOJEM JE PRIKAZAN OVAJ BPI

--

UČINAK NA ZAPOŠLJIVOST

Positive: increased efficiency of materials

TROŠKOVI PROVEDBE (EURO - €)

--

VIŠE DETALJA

IZAZOV

--

DOMENA

Drvna građevinska industrija

VRSTA RJEŠENJA

--

KLJUČNE RIJEČI

--

DIGITALNO RJEŠENJE

Ne

INOVACIJA

Da

ZEMLJA PODRIJETLA

Španjolska

PODRUČJE PRIMJENE

Nacionalna

POČETAK I KRAJ GODINE

2017 - 2018

REFERENCES AND RESOURCES

GLAVNA WEB STRANICA

http://www.mabitat.es

WEB STRANICA PROJEKTA

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REFERENCA PROJEKTA

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IZVORI

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PROJEKT U OKVIRU KOJEG JE INFORMATIVNI LIST KREIRAN

Rosewood

DATUM UNOSA

13 ruj 2019

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Link to Rosewood 4.0

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