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.

PODROBNOSTI

IZVOR LESA

Gozd

TIP LESA

Okrogli les

VRSTA OBRAVNAVANEGA LESA

Sawn timber, KVH

VPLIV NA OKOLJE IN BIODIVERZITETO

Positive

VPLIV NA PRIHODKE

Positive: decreased building time

POTENCIAL IZKORIŠČANJA

--

VOZLIŠČE

--

GOSPODARSKI VPLIV

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

POTREBNO SPECIFIČNO ZNANJE

High knowledge needed about similar construction systems

POTENCIAL ZA MOBILIZACIJO

10-20 m3 / house

TRAJNOST - VREDNOST

--

ENOSTAVNOST IZVEDBE

Medium

ENOSTAVNOST IZVEDBE - OCENJEVANJE

--

KLJUČNI PREDPOGOJI

--

VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI

--

VPLIV NA DELOVNA MESTA

Positive: increased efficiency of materials

STROŠKI IZVEDBE (EURO - €)

--

VEČ PODROBNOSTI

IZZIV

--

DOMENA

Lesena gradnja

TIP REŠITVE

--

KLJUČNE BESEDE

--

DIGITALNE REŠITVE

No

INOVACIJA

Da

IZVORNA DRŽAVA

Španija

OBSEG UPORABE

Nacionalni

ZAČETNO IN KONČNO LETO

2017 - 2018

REFERENCES AND RESOURCES

SPLETNA STRAN

http://www.mabitat.es

VIRI

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SPLETNA STRAN PROJEKTA

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REFERENCA PROJEKTA

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PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood

DATUM OBJAVE

13 Sep 2019

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