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.

DETALII

SURSA DE LEMN

Pădure

TIPUL DE LEMN

Lemn masiv

TIPUL DE LEMN îN CAUZă

Sawn timber, KVH

IMPACTUL ASUPRA MEDIULUI șI BIODIVERSITățII

Positive

EFECT ASUPRA VENITURILOR

Positive: decreased building time

POTENțIAL DE EXPLOATARE

--

HUB

--

IMPACT ECONOMIC

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

CUNOșTINțE SPECIFICE NECESARE

High knowledge needed about similar construction systems

POTENțIALUL DE MOBILIZARE

10-20 m3 / house

POTENțIAL DE SUSTENABILITATE - VALOARE

--

FACILITATEA DE IMPLEMENTARE

Medium

FACILITATEA DE IMPLEMENTARE - EVALUARE

--

CONDIțII CHEIE PREALABILE

--

TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB

--

EFECT ASUPRA LOCURILOR DE MUNCă

Positive: increased efficiency of materials

COSTURI PENTRU IMPLEMENTARE (EURO - €)

--

MAI MULTE DETALII

PROVOCARE ABORDATă

--

DOMAIN

Industria construcțiilor din lemn

TIP DE SOLUțIE

--

CUVINTE CHEIE

--

SOLUțIE DIGITALă

Nu

INOVAțIE

Da

ȚARA DE ORIGINE

Spania

SCARA DE APLICARE

Național

ANUL DE îNCEPUT șI DE SFâRșIT

2017 - 2018

REFERENCES AND RESOURCES

PAGINă WEB

http://www.mabitat.es

RESURSE

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WEBSITE PROJECT

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REFERINță PROIECT

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PROIECTUL îN CADRUL CăRUIA A FOST CREATă ACEASTă FIșă INFORMATIVă

Rosewood

DATA POSTăRII

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