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.

DETALJER

OPPRINNELSE FOR TRE

Skog

TYPE TRE

Tre fra rundtvirke

TYPE TRE INVOLVERT

Sawn timber, KVH

PåVIRKNING På MILJø OG BIOLOGISK MANGFOLD

Positive

INNTEKTSEFFEKT

Positive: decreased building time

UTNYTTELSESPOTENSIAL

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HUB

--

ØKONOMISK PåVIRKNING

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

SPESIFIKKE KUNNSKAPSBEHOV

High knowledge needed about similar construction systems

MOBILISERINGSPOTENSIAL

10-20 m3 / house

BæREKRAFTPOTENSIAL - VERDI

--

ENKEL IMPLEMENTERING

Medium

ENKEL IMPLEMENTERING - EVALUERING

--

VIKTIGE FORUTSETNINGER

--

TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

--

EFFEKT På ARBEIDSPLASSER

Positive: increased efficiency of materials

KOSTNADER MED IMPLEMENTERING (EURO - €)

--

MER INFORMASJON

UTFORDRING ADRESSERT

--

DOMENE

Industri for bygg i tre

TYPE LøSNING

--

NøKKELORD

--

DIGITAL LøSNING

Nei

INNOVASJON

Ja

OPPRINELSESLAND

Spania

POTENSIALE

Nasjonal

START OG SLUTT åR

2017 - 2018

REFERENCES AND RESOURCES

HJEMMESIDE (HOVEDSIDE)

http://www.mabitat.es

RESSURSER

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PROSJEKTETS HJEMMESIDE

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REFERANSE TIL PROSJEKT

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PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

Rosewood

INNLEGGSDATO

13 sep 2019

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Link to Rosewood 4.0

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY