High Efficiency Light Panel (HELP), a new woodbase 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.

SURSA DE LEMN	POTENțIALUL DE MOBILIZARE
Pădure	10-20 m3 / house
TIPUL DE LEMN	
Lemn masiv	POTENțIAL DE SUSTENABILITATE - VALOARE
TIPUL DE LEMN ÎN CAUZĂ	FACILITATEA DE IMPLEMENTARE
Sawn timber, KVH	Medium
IMPACTUL ASUPRA MEDIULUI și BIODIVERSITății	FACILITATEA DE IMPLEMENTARE - EVALUARE
Positive	
EFECT ASUPRA VENITURILOR	CONDIțII CHEIE PREALABILE
Positive: decreased building time	
POTENțIAL DE EXPLOATARE	TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB
HUB	EFECT ASUPRA LOCURILOR DE MUNCĂ
	Positive: increased efficiency of materials
IMPACT ECONOMIC	COSTURI PENTRU IMPLEMENTARE (EURO - €)
Increase of the load-bearing capacity of the building by 30% approximately	

CUNOșTINțE SPECIFICE NECESARE

High knowledge needed about similar construction systems

PROVOCARE ABORDATă	DOMAIN	TIP DE SOLUȚIE
	Industria construcțiilor din lemn	
CUVINTE CHEIE	SOLUțIE DIGITALă	INOVAțIE
	Nu	Da
ȚARA DE ORIGINE	SCARA DE APLICARE	ANUL DE ÎNCEPUT și DE SFâRșit
Spania	Național	2017 - 2018
REFERENCES AND RESOURCES		

PAGINă WEB

RESURSE

http://www.mabitat.es

WEBSITE PROJECT

REFERINță PROIECT

PROIECTUL ÎN CADRUL CĂRUIA A FOST CREATĂ ACEASTĂ FIȘĂ INFORMATIVĂ

Rosewood

DATA POSTĂRII

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