

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



ROSEWOOD
4.0 Sustainable Wood
for Europe

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.

DETTAGLI

ORIGINE DEL LEGNO	POTENZIALE DI MOBILITAZIONE
foresta	10-20 m3 / house
TIPO DI LEGNO	POTENZIALE SOSTENIBILITÀ - VALORE
Fusto	--
TIPO DI LEGNO IN QUESTIONE	FACILITÀ DI IMPLEMENTAZIONE
Sawn timber, KVH	Medium
IMPATTO SULL'AMBIENTE E LA BIODIVERSITÀ	FACILITÀ DI IMPLEMENTAZIONE - VALUTAZIONE
Positive	--
EFFETTO SUL REDDITO	PREREQUISITI CHIAVE
Positive: decreased building time	--
POTENZIALE DI SFRUTTAMENTO	TIPO DI EVENTO IN CUI QUESTO BPI È STATO PRESENTATO
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HUB	EFFETTO SUL LAVORO
--	Positive: increased efficiency of materials
IMPATTO ECONOMICO	I COSTI DI ATTUAZIONE (EURO - €)
Increase of the load-bearing capacity of the building by 30% approximately	--
CONOSCENZE SPECIFICHE NECESSARIE	
High knowledge needed about similar construction systems	

PIÙ DETTAGLI

SFIDA RISOLTA	DOMINIO	TIPO DI SOLUZIONE
--	industria delle costruzioni in legno	--
PAROLE CHIAVE	SOLUZIONE DIGITALE	INNOVAZIONE
--	No	Sì
PAESE D'ORIGINE	SCALA DI APPLICAZIONE	INIZIO E FINE ANNO
Spagna	Nazionale	2017 - 2018

**REFERENCES
AND RESOURCES**

SITO PRINCIPALE	RISORSE
http://www.mabitat.es	--
SITO WEB DEL PROGETTO	
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PROGETTO DI RIFERIMENTO	
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PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

DATA DI INSERIMENTO

13 Set 2019



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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



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