The project aims to develop a number of new building systems suited

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 608893.

EARTH-WOOD COMPOSITE

INTERNAL WALL

- Functionalized earthen plaster - Earthen dry board Timber stud system with wood fibre insulation - Earthen dry board Functionalized earthen plaster

HEALTHIER LIFE

[H] house

WITH ECO-INNOVATIVE COMPONENTS FOR HOUSING CONSTRUCTIONS



MOTIVATION AND OBJECTIVES



to a society where environmental awareness and a high degree of living comfort are both required. The concept of the project is to develop new building components for external and internal walls for new buildings and for renovation.

The purpose of an adequate building envelope is protection against moisture ingress, heat loss in winter, overheating in summer and noise. Components for the internal walls should be able to buffer heat and humidity peaks and prevent pollutants and noise.

H-House will develop new eco-innovative materials and will focus on building components for a healthier indoor environment. H-House solutions cover aspects of chemical and physical 'activity' of the developed building materials, their embodied energy, suitability for different applications and environments, durability, cost-efficiency and long-term improvement of energy efficiency of buildings.

PROJECT FRAMEWORK

H-House is a collaborative research project co-founded by the European Commission under the 7th Framework Programme EeB.NMP.2013-2 (EC contract No. 608893).

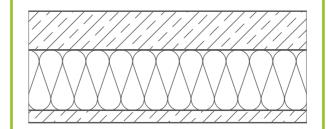
The project started in September 2013 and will be carried out over a period of four years. The main purpose is the development of innovative, sustainable façade elements and partition walls based on earthen materials, optimised cementitious materials with modified surfaces and wooden or cellulose materials in order to improve the indoor environment with regards to health and occupant comfort and to increase the energy efficiency of residential buildings.



The complementary consortium consisting of 12 partners makes up a strong team of organisations with specific expertise in the required technical areas. It has a strong industrial dominance with 5 high-tech SMEs and 4 large industries supported by 3 research institutes from 4 EU countries. The coordinator of the project is the CBI Swedish Cement and Concrete Research Institute.

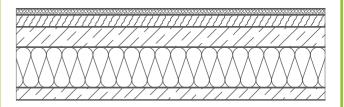


EXTERNAL WALL **NEW SANDWICH PANEL 2**



Ultra high performance concrete (UHPC) - Autoclaved aerated concrete (AAC) insulation - Surface functionalized UHPC

EXTERNAL WALL **NEW SANDWICH PANEL 1**



- Functionalized earthen plaster

- Wood fibreboard Textile reinforced concrete (TRC) or
- Ultra high performance concrete (UHPC)
- Aerogel-foam concrete composite (AFC) insulation
- Surface functionalized TRC or UHPC



RENOVATION Functionalized earthen plaster Wood fibreboard Standard concrete (original) Aerogel-foam concrete composite (AFC) or Autoclaved aerated concrete (AAC) insulation

Functionalized textile reinforced concrete (TRC)

or Ultra high performance concrete (UHPC)

EXTERNAL WALL

PARTICIPANTS

1 CBI Swedish Cement and Concrete Research Institute (Sweden) 2_BAM Federal Institute for Materials Research and Testing (Germany) **3**_ITB Building Research Institute (Poland) 4_Aercrete Technology AB (Sweden) **5**_Cycleco SAS (France) **6**_Roswag Architekten (Germany) 7_Svenska Aerogel AB (Sweden) 8_PRE Fasada sp. z o.o. (Poland) **9_**Dyckerhoff GmbH (Germany) 10_Strängbetong AB (Sweden) 11_Mostostal Warszawa SA (Poland) 12_Xella Technology and Research Centre (Germany)

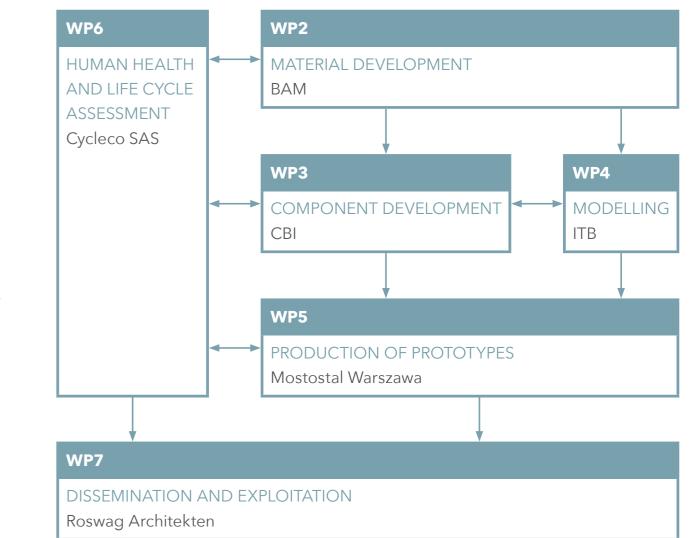


PROJECT STRUCTURE

The project is divided into seven work packages extending over a four-year period. Special emphasis is placed on the empirical and modelled development of new materials as well as the improvement of the existing materials. The development will follow the rules for Human Health and Life Cycle Assessment.

FURTHER INFORMATION

Please visit www.h-house-project.eu or email: katarina.malaga@cbi.se









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