



# H-HOUSE



**Project title: “Healthier Life with Eco-innovative Components for Housing Construction” (H-House)**

1st September 2013 – 31st August 2017

**Coordinator:** CBI Betonginstitutet AB

The ITB is among the 12 partners of the H-House Project.

**General concept:**

H-House aims to develop a number of multifunctional and flexible building components for modern society where awareness for environmental aspects, living comfort plus national and EC requirements related to safety and energy efficiency are not comprised but complementing each other.

The H-House will design components for building envelopes and interior walls that can be used for new buildings and for renovation. The goal of an optimal building envelope is to protect against moisture ingress, heat loss in winter, excessive heating in summer and noise.

Components for the interior should be able to buffer heat and humidity peaks and prevent pollutants and noise. Solutions for all components have to be durable, energy-efficient and affordable. Therefore, H-House will propose innovative sustainable facades and partition walls based on earthen materials, optimized cementitious materials with modified surfaces and elements made of wooden/cellulose materials.

An innovative modification of the listed materials with additions of energy-saving and air purifying aerogel granulates will create optimal conditions for living. The concept of H-House covers chemical and physical ‘activity’ of developed building materials, their embodied energy, suitability in different environments, durability, cost-efficiency and amplification of energy efficiency of buildings.

### The work packages within the project:

- WP1 Financial and administrative management
- WP2 Design and optimization of materials
- WP3 Development of building components
- WP4 Modelling and validation
- WP5 Production of prototypes
- WP6 Human health and life cycle assessment
- WP7 Dissemination, Exploitation and Training

Total Project Value: 6 550 894 euro

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