

Researching A New Living Concept That Won't Cost the Earth

Posted on Thursday 4th February 2010

Civil engineers from the University of Birmingham are conducting research to evaluate the thermal performance of a new type of house called the 'Ergohome'. The Ergohome, which is situated on the University's campus, is a new living concept which includes built-in sustainable features to address future housing needs.



Ergohome in the snow

The Ergohome is a robust design for a changing world. It is made from structural insulated panels (SIPs) and a steel frame and it can be situated, on stilts, at over two metres above ground. The insulation on all sides delivers thermal comfort and its structure makes it resistant to both physical damage and unstable ground conditions.

SIP panels ensure high strength and insulation and are used for the home's floor, walls and roof. They are a modern composite building material – a foam block sandwiched between timber sheathings. University engineers have been testing the SIPs under many conditions to ascertain their strength, thermal performance and the overall energy usage required to maintain a comfortable living environment. This will be used to assess the implications for future SIP constructions both in terms of their design and future development.

Dr Ian Jefferson, investigator from the University of Birmingham's School of Civil Engineering, said, 'The UK has to find ways to make a step change in the cost, speed and quality of constructing dwellings in order to address the issues facing the housing sector and this project offers an outstanding opportunity to evaluate the kind of product that is required.'

The Ergohome has been invented by entrepreneur, Paul Chadwick. He said, 'The Ergohome demonstrator building which was recently commissioned for the University research, has the capability to address many of the issues related to housing today including high energy efficiency and thermal comfort, low maintenance costs and carbon footprint as well as flood and subsidence tolerance.'

Notes to Editors

1. The Ergohome is situated on Edgbaston Park Road, near the University of Birmingham's Tennis Courts Halls of Residence.
2. The project has been made possible by funding from E.ON, Advantage West Midlands, West Midlands Centre for Constructing Excellence, Dorothy Hodgkin, Innovation vouchers and Ergohome Ltd.

For further media information:

Kate Chapple, Press Officer, University of Birmingham, tel 0121 414 2772 or 07789 921164

[Privacy](#) | [Legal](#) | [Cookies and cookie policy](#) | [Accessibility](#) | [Site map](#) | [Website feedback](#) | [Charitable information](#)

© University of Birmingham 2015

