

A tipping point for bio-based insulation? ISO BIO outlines a radical approach to the use of natural construction materials at scale

A recently launched European-funded research project aims to transform mainstream adoption of sustainable materials in building and construction - delivering significant energy efficiency improvements and wider environmental benefits with proven performance and effectiveness.

--

Bio-based aggregates such as straw, clay, wheat or grasses mixed with innovative binders might hold the key to a more environmentally friendly construction process and substantial improvements in energy efficiency for everything from individual private residences to major public buildings.

[The ISOBIO project](#) will develop these sustainable construction materials to enable demonstration at prototype level in an operational environment. The objective is to achieve a **50% reduction in embodied energy and CO₂** at component level and **20% better insulation properties** than conventional materials.

Proving what is good for the environment can also be good for the economy, the project will also seek to demonstrate **a reduction of least 15% in total costs** and **5% total energy spent over the lifetime of a building**.

The project runs from February 2015 for four years, has a budget of 6,3M€, and the development is planned in four significant phases. The first two will focus on taking the materials from idea to application, before emphasis switches to a smooth transition from lab to demonstration scale, facilitating an exploitation of the results by the building industry and key stakeholder groups such as construction professionals, local authorities and architects.

The unique blend of organisations and expertise working towards these goals is a consortium of 12 partners from across Europe. Lead by independent research and technology experts, TWI, and comprising partners from France, Spain, Germany, Norway, UK and Belgium. The ISO BIO project is funded by the [Horizon 2020 programme under a specific call to improve energy performance](#) and reduce embodied energy across the whole life cycle of a building.

Interested parties can follow developments on the [@isobioproject](#) twitter account. A dedicated project website will be live during Spring 2015.



ISO BIO is coordinated by TWI Ltd (Cambridge, UK) and will be run in cooperation with 11 European partners: ModCell Ltd, University of Bath, University of Rennes 1, CAVAC Biomateriaux, Claytec e.K., Norsk Institutt for Skog og Landskap, Acciona Infraestructuras S.A., Stramit International Ltd, BCB SAS, Progetic, and Greenovate! Europe. This project has received funding from the European Union's Horizon 2020 Programme for research, technological development and demonstration under grant agreement No. 636835.

Press and media enquiries can be directed to alec.walker-love@youris.com, +32 497 487 486