Market Research for Centres of Excellence in Sustainable Building Design

Department of Architecture & Civil Engineering in collaboration with The Royal Academy of Engineering

Challenge

The only way to achieve low carbon emission targets is to substantially reduce the energy used in buildings. Adding ‘renewables’ electricity generation to a building is very costly compared with designing a building that performs well in the first place, but to do this needs engineers with special skills, and architects and other professionals who are capable of working with them and realise what should be achieved. There are not enough of these people in the UK or anywhere else, and while universities such as Bath are producing a significant number of excellent graduates, many more are needed.

Solution

The Royal Academy of Engineering (RAEng) believe that the provision of Centres of Excellence is necessary to supply these highly skilled engineers, and therefore sought a definition of the shape and location of such centres on the basis of evidential need. The University of Bath developed an economic case for establishing these Centres of Excellence, outlining the costs and benefits for the UK economy.

Benefits and outcomes

The Royal Academy of Engineering has published this case, and is now using it to influence policy at governmental level, with the aim of securing commitments to support these Centres. The long term impact of this project will be the establishment of Centres of Excellence, which will produce research and lead the education of highly skilled low carbon designers. These Centres will have strong international links, supporting the global impact of the UK construction industry of the UK. They will also be central to helping the UK meet the pressing needs of greenhouse gas reduction in a way that benefits the economy.