

## University of Birmingham receives £5.9 million to assess the underworld

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The University of Birmingham will receive one of four large grants as part of a multi-million pound investment in leading engineering research projects to be announced by Minister for Universities and Science, David Willetts today (12 March 2013).

The minister will announce a £47 million investment for five frontier engineering projects and four large grants to UK universities at the first Global Grand Challenges Summit in London. The investment will support new innovative engineering projects and an international partnership between the UK and US bringing leading engineers and scientists together to address some of the major engineering challenges facing the world.

A £5.9 million grant has been awarded to **Professor Chris Rogers** (</staff/profiles/civil/rogers-christopher.aspx>) for *Assessing the Underworld – an integrated model of city infrastructures*, a project which looks at transforming how street works are carried out and improving the management of assets under the ground. In collaboration with academics from the Universities of Bath, Leeds, Sheffield, Southampton and Newcastle and NERC British Geological Survey, this project is supported by institutions in Australia, Brazil, New Zealand and the US among its 63 partners. Key players in utilities, construction, sensing and mapping have pledged an additional £17 million support in cash and in-kind contributions.

The Global Grand Challenges Summit is organised by the Royal Academy of Engineering with the support of the Engineering and Physical Sciences Research Council and other partners.

The University of Birmingham joins Imperial College London, University of Dundee and the University of Edinburgh to receive one of four large grants totalling £20 million, which will go to projects that match the Summit's themes of Resilience, Health, and Technology & Growth. They will develop new diagnostic tools and therapies in health, explore the use of hexagonal structures in technology, and improve urban infrastructure planning and modelling. In addition, five Frontier Engineering projects will receive £25 million in total, the successful applicants cover a range of topics that align with the themes of the Global Grand Challenges Summit.

Professor Chris Rogers said: "Utility services provide the life blood of cities, providing the wherewithal for civilised life in cities to be supported. They are typically buried beneath our urban streets meaning that they are vulnerable to damage, while we are vulnerable to traffic congestion, when we need to add to, repair or maintain them using traditional, trenching, methods. By using shallow-surface geophysics – Time Team for the streets, if you like – we will explore the structural condition of the buried pipes and cables, the ground in which they are buried and the road structures that overlie them, and this will inform the types of (trenchless) technologies that might be used"

David Willetts said: "Over the last two centuries engineering innovations have transformed lives, but we still face global challenges like tackling climate change, improving healthcare and meeting basic needs, like access to clean water. This significant investment recognises the vital role that the UK research base can have in providing solutions to these challenges."

### Notes to Editors

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