

PRESS RELEASE

FOR IMMEDIATE RELEASE: Tuesday 24 January 2012

‘UK’s infrastructure systems need to be more joined up’ says major new report

A research consortium led by Oxford University warns that significant investment will be needed, in many cases, to replace the UK’s ageing infrastructure systems. A major new report by the UK Infrastructure Transitions Research Consortium has looked into how we can meet the future growing demand for energy, water, waste, ICT and transport systems. It recommends the sectors involved to work more closely together to provide coordinated infrastructure systems as their networks become increasingly interdependent and complex. It also suggests the introduction of new measures to manage growing demand, like smart electricity meters, water meters and road pricing.

For the first time, researchers have used the same method to analyse the nation’s energy, transport, water, waste and ICT systems. They demonstrated how the same factors, including population increase, economic growth and energy prices influence demand for all of these sectors.

‘In the Chancellor’s Autumn Statement, the Treasury made the case for improving Britain’s national infrastructure and we’ve recently had the HS2 announcement,’ said Professor Jim Hall, Director of the Environmental Change Institute at the University of Oxford, who led the study. ‘Our analysis demonstrates that to get the most out of these systems you have to plan for the long term. Traditionally we have dealt with transport, energy and water in isolation – we have to pay more attention to how they interact with each other.’

Professor Jim Watson, from Sussex University, said: ‘In the UK we have complex regulatory arrangements for energy, transport, water, waste and digital communications. Whilst a complex picture is not necessarily a bad thing, there is a need to ensure that policies for these sectors are sufficiently co-ordinated. Government and regulatory bodies could do much more to ensure that smart solutions to today’s sustainability challenges are not missed – particularly where these cut across more than one infrastructure sector.’

The study, ‘A fast track analysis of strategies for infrastructure provision in Great Britain’, says that the UK’s carbon emissions targets will have to shape our infrastructure system in the long term – above all in energy; but also in transport, water supply, waste water and solid waste. It suggests that carbon targets and rising global energy prices will be a driver of innovation.

‘By the middle of this century, we could see our sewage treatment works as energy generation sites and resource recovery facilities,’ said Professor Tom Curtis of Newcastle University, ‘but we need to be retooling now.’

The research has been conducted over the last year by a consortium of seven of the UK’s leading universities, who have been working closely with government and utility companies. This is the first time that researchers have conducted a national review of likely future demands on all of the UK’s major infrastructure systems. The researchers are developing computer-modelled simulations to test future infrastructure policies and designs, which adapt existing systems as much as possible and target investments that are likely to provide us with the biggest benefits in the future.

For a copy of the full report, go to <http://www.itrc.org.uk/outputs/>

For more information, contact the University of Oxford Press Office on +44 (0)1865 280534 or email: press.office@admin.ox.ac.uk

Notes for Editors

*The report, 'Fast Track Analysis of strategies for infrastructure provision in Great Britain', is the first major output from the Infrastructure Transitions Research Consortium (ITRC), a five-year collaborative programme between academia, government and industry.

*Professor Jim Hall is the Director of the Environmental Change Institute and Professor of Climate and Environmental Risks in the School of Geography and the Environment at the University of Oxford. His research focuses upon management of climate-related risks in infrastructure systems, in particular relating to flooding, coastal erosion and water scarcity. For more information, please go to: <http://www.eci.ox.ac.uk/people/halljim.php>

*The UK Infrastructure Transitions Research Consortium (ITRC) has been funded by the Engineering and Physical Sciences Research Council (EPSRC) to develop and demonstrate a new generation of system simulation models and tools to inform analysis, planning and design of NI. The five-year ITRC research programme started in January 2011.

The ITRC is comprised of seven universities: Oxford (coordinator), Cambridge, Cardiff, Leeds, Newcastle, Southampton, and Sussex.

The ITRC is supported by partners in government, business and NGOs. A full list of consortium partners is available at <http://www.itrc.org.uk/about-itrc/partners/>

The research programme deals with energy, transport, water, waste and ICT systems at a national scale, developing new methods for analysing their performance, risks and interdependencies.

In its first year, the ITRC has undertaken a Fast Track Analysis of the drivers of change in national infrastructure and potential long term strategies for infrastructure provision. The Fast Track Analysis Executive Summary, main report and technical annexes are all available to download from <http://www.itrc.org.uk/outputs/>

Further details on the ITRC can be found at www.itrc.org.uk.

ENDS