

Future opportunities in engineering research for international development

A roundtable for UK funders and research leaders

Thursday 29 May 2014, 10.00 - 12.30

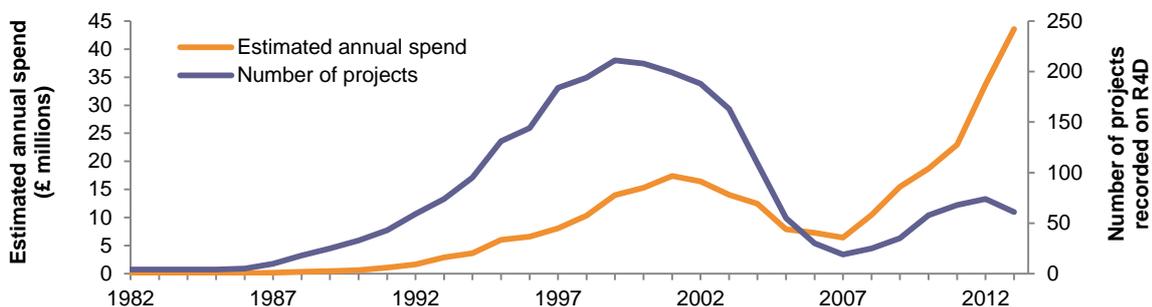
National Grid Room, Royal Academy of Engineering, 3 Carlton House Terrace, London

Background: a renaissance in engineering research for development

The value of infrastructure in international development is regaining mainstream appreciation. A UN High Level Panel, co-chaired by David Cameron, reported last year on development priorities for the next 15 years. It stated unequivocally “everyone should have access to modern infrastructure – drinking water, sanitation, roads, transport and information and communications technologies (ICT)”. In addition, the recent Perkins’ Review noted engineering skills will play a crucial role in confronting “the bigger challenges that the world faces”, and BIS’ Eight Great Technologies policy acknowledges the ancillary benefits for developing countries of UK investment in engineering technologies, providing new opportunities for UK trade and investment while driving development.

In addition to EPSRC funding for engineering relevant to development, research on infrastructure is currently undergoing a renaissance in DFID: in 2013 the Research and Evidence Division (RED) invested an estimated £45m in infrastructure research¹, representing a threefold increase since 2000 and 15% of the 2013-14 Division’s budget².

Figure 1 - Estimated DFID RED spend on infrastructure research



Programmes currently include research on cities as potential engines of growth, roads to provide access to rural communities, distributed energy services, mobile enabled water supplies and more. The increasing investment in infrastructure reflects DFID’s emphasis on sustainable economic growth as a route to long-term poverty reduction, in line with a new economic development strategy. Themes such as the enabling environment for infrastructure (including the political economy of infrastructure investment and governance), transport and infrastructure to support the urban poor are likely to see increasing investment in the near future.

¹ UKCDS analysis of figures from R4D (<http://r4d.dfid.gov.uk/>).

² The DFID RED budget was £305m for 2013-14: <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmintdev/751/75105.htm> Accessed 30/04/14

The aim of this roundtable

A recent mapping, carried out by UKCDS and DFID, identified those organisations invited to this roundtable as leading UK institutions in engineering research relevant to international development. This mapping analysed who was winning competitive research calls, complementing this information with qualitative data from a survey and semi-structured interviews with research leaders.

Given the step up in activity from funders, and recent developments in strategic thinking, it is a timely opportunity for dialogue between funders and the research base. Professor Chris Whitty (Head of DFID Research), Stephen Young (DFID Head of Profession for infrastructure) and Dr Kedar Pandya (EPSRC theme leader for engineering) will present funders' latest thinking. The funders are keen to discuss the growing opportunities in engineering research for development with senior research leaders and managers. It is expected that greater understanding of universities' drivers for engagement in this space, and the barriers they face, will help maximise the potential impact of UK research in international development.

Questions for discussion

1. Do the UK funders' strategies presented align with universities' ambitions in engineering research relevant to development?
2. What barriers do UK universities face that prevent their researchers from having more impact in engineering relevant to development?
 - a. In developing partnerships?
 - b. In the policies, funding and incentive structures that influence UK universities' research?
3. What roles can organisations such as the Royal Academy of Engineering and UKCDS play?

UKCDS and Royal Academy of Engineering's previous work

The Royal Academy of Engineering is the UK's national academy for engineering. It has had a longstanding interest in international development, including helming the Africa-UK Engineering for Development Partnership, producing the 2012 report *Engineers for Africa: Identifying engineering capacity needs in sub-Saharan Africa*, and running the Enhancing Engineering Education Programme and the Africa Prize for Engineering Innovation.

UKCDS is the group that brings together UK funders and government departments with interests in international development, including BIS, DFID, and five of the Research Councils. The UKCDS Secretariat has been tasked by the funders to explore whether UK engineering research is having the maximum possible impact in development. Work to date has included cross Government discussions, a roundtable for academics in 2013, and the mapping work with DFID that underpins this roundtable.

Agenda

Tea, coffee and pastries will be available from 9.30am

10.00	Welcome and introductions	Professor John Perkins, CSA of BIS
10.20	Background on engineering for international development	UKCDS and the Royal Academy of Engineering
10.40	EPSRC's work in international development	Dr Kedar Pandya, Head of the Engineering Theme, EPSRC
11.00	DFID's infrastructure research funding strategy and current/future opportunities	Professor Chris Whitty, Head of DFID Research Stephen Young, Head of Profession for Infrastructure
11.30	Open roundtable discussion – how can UK engineering research contribute more to international development?	Chaired by Professor John Perkins
12.30	Lunch	
13.30	Close	

Attendees

Professor Brian Collins FEng	University College London
Dr Andrew Cotton	Loughborough University
Professor Sarah Curtis	Durham University
Dr Val Curtis	London School of Hygiene and Tropical Medicine
Professor Giles Davis	Leeds University
Dr Chris Dent	Durham University
Meredith Ettridge	Royal Academy of Engineering
Dr Ian Forristal	Royal Academy of Engineering
Professor Lynn Gladden FEng	Cambridge University
Professor Peter Ireland	Oxford University
Professor Walter Johnstone	Strathclyde University
Professor Michael Kearney FEng	Surrey University
Dr Elizabeth Miles	Coventry University
Dr Michelle Moram	Imperial College
Professor Ray Ogden	Oxford Brookes University
Dr Kedar Pandya	EPSRC/Royal Academy of Engineering
Professor John Perkins FEng	BIS
Mylene Ployaert	Southampton University
Hayley Sharp	DFID
Dr Hayaatun Sillem	Royal Academy of Engineering
Professor Mark Sterling	Birmingham University
Ian Thornton	UKCDS
Professor Kevin Warwick	Coventry University
Professor Jeremy Watson FEng	University College London
Professor Chris Whitty	DFID
David Woolnough	DFID
Alistair Wray	DFID
Stephen Young	DFID