

# IKC Centre for Smart Infrastructure & Construction (CSIC)

PI: Prof. Robert Mair (Cambridge)

2011- 2016    £7.3M + TSB + Industry

McFarlane, Professor D

Seshia, Dr A

Jin, Dr Y

Cipolla, Professor R

Middleton, Professor C

Heffernan, Dr P B

Mascolo, Dr C

Allwood, Dr JM

Crowcroft, Professor J

Echenique, Professor M

Soga, Professor K

Parlikad, Dr A

Scholtes, Professor S

# Infrastructure Transitions Research Consortium (ITRC)

PI: Prof. Jim Hall (Oxford previously  
Newcastle)

Co-Is: Prof. T. Curtis – Newcastle, Prof. C.  
Kilsby - Newcastle

2011- 2016     £4.7M

ITRC delivers research, models and decision support tools to enable analysis and planning of a robust national infrastructure system. The research addresses major challenges for the energy, transport, water, waste and ICT systems sectors.

<http://www.itrc.org.uk/>

## *Priority themes from FIF4*

Nine areas were identified by the academic breakout group for future platform grant applications in the future:

1. Increased use of diagnostics to map the condition of infrastructure materials
2. Studies of network resilience (the ability for a network to recover from demand increases)
3. Even smarter infrastructure monitoring in which specific critical parameters are both understood and accurately measured during construction and service
4. A world without codes of practice: true application of performance based design criteria to both dynamic and non-dynamic loading

## *Priority themes (continued)*

5. Rational, sustainable end of infrastructure life decision analysis
6. Demand management studies and how real-time systems manage demand (network level studies)
7. Advanced construction processes: revolution of how we deliver construction with increased levels of automation and robotics
8. Advanced studies of fluid-soil-structure interaction
9. New efficient procurement and contracting methods driven by civil engineering insights into the design, tender and construction process.

# Recommendations from FIF4

1. FIF and LIMESNET should continue but merge and help seek out new links in Europe
2. Research efforts should respond to the importance of the problem and not simply the scientific interest
3. Industry must remain part of the peer review process for the research funding proposals
4. Successful EPSRC bids should be more highly managed

## *Recommendations from FIF4 (cont.)*

5. Objectives from earlier FIF meetings have not been carried through to the proposal writing stage and are now essentially 'on-the-shelf' and therefore future meetings need to revisit and revive these
6. The current proposals for this call are not considered visionary they are good projects and have interesting aims but they do not represent transformative research
7. There needs to be a breaking down of barriers to collaboration between universities – academics are all competing for individual funding and this contributes to their promotional prospects and often is a barrier to working with their competitors