



## Adaptation and Resilience in the Context of Change (ARCC) Network

[www.arcc-network.org.uk](http://www.arcc-network.org.uk)

### Achievements in 2015

This short report summarises key achievements in 2015. It illustrates the range of knowledge exchange and engagement activities being carried out by the ARCC network to enhance the use and benefits of research outputs to support resilient and sustainable buildings and infrastructure.

Funded by the Engineering and Physical Sciences Research Council (EPSRC), the ARCC network provides a UK-wide focus for knowledge exchange and stakeholder engagement activities to better inform research, policy and practice at the local, regional and national levels. [The website](#) provides a comprehensive summary of information and activities on both cross-cutting themes and specific skills development opportunities. The best way of keeping in touch is to [sign up for ARCCnews](#).

2015 was a busy year for the network as it sought to share knowledge derived from both research and practical experience to generate new knowledge and solutions for the built environment and infrastructure sectors. Priority was given to:

- Strengthening engagement across the built environment sector,
- Facilitating the uptake of research evidence into policy and practice,
- Informing the strategic research agenda.

### Key achievements

#### Meeting evidence requirements

- 1 **Theme-focused initiatives** look to stimulate cross-project synergies on specific themes and to strengthen links with a wide range of stakeholders. Topics in 2015 were identified to meet emerging research, policy and practice requirements for synthesised evidence and information. Additional reach and benefit was achieved by partnering with external organisations.

Theme	Activity/participants	Partner	Potential impact
Adaptation in the energy sector	Workshop: 25 technical users	Heriot Watt University	Explored how new result outputs could be used
	Policy briefing: 20 central government and practice	National Grid/ENA	Synthesised key messages to inform policy/strategy
Contaminated land and extreme weather conditions	Workshops: 45 local stakeholders plus national agencies.	CIRIA	Illustrated the research available and its potential use in the local context
Overheating and indoor air quality in new homes	Workshop: 80 industry and academic experts	Homes and Community Agency	Helping to map the latest research and its potential use
Infrastructure and interdependencies	Workshop: 70 non-academic stakeholders/CIRIA members	CIRIA	Encouraged research projects to synthesise messages on cross-cutting issues
Architecture and resilience on a human scale	Conference session: Disrupting the incumbent city of the future – researchers	Future Cities catapult	Community building with new subject audience
Resilience of Scottish Infrastructure	Workshop: 25 policy-makers, practitioners and researchers	ClimateXchange, Adaptation Scotland	Identified further evidence and capacity building needs – towards new research proposals
Heritage buildings	2 x workshops: heritage & historic environment representative bodies	Historic Scotland/ NERC	Raised awareness and explored knowledge and evidence gaps that could be informed by ARCC.

- 2 Science-policy/practice dialogues** are longer-term initiatives aimed at stimulating the broader understanding of scientific evidence and its implications in key areas. For 2015:
- A new seminar series on [Feeling good in public spaces](#) was established with the Feeling Good Foundation, to explore how people’s senses are affected by the design of public spaces and buildings. Six evening events are planned; the first, on [Human physiology, psychology and place-making](#) (with the Wellcome Trust) attracted wide interest from a new audience of designers, energy managers and public health professionals.
  - The Infrastructure dependencies and interdependencies dialogue with the Environment Agency’s [Infrastructure Operators Adaptation Forum](#) continued to engage with central government and infrastructure practitioners to better understand the overall interdependencies landscape, and the challenges and opportunities arising.
- 3 Promoting co-production of outputs** through [joint working opportunities](#) between researchers and those looking to use academic outputs. This rolling initiative provides funds to support small projects looking to increase impact and awareness, build capacity and to develop skills in delivering and using evidence from existing EPSRC-funded research. Two projects, on the challenges of financing public sector adaptation projects (with [iBUILD](#), ClimateXchange & Adaptation Scotland) and on building flood resilience for SMEs (with [CREW](#) and the Environment Agency) were completed in 2015. Work also started on two studies looking at developing an integrated flood modelling approach for local flood risk assessment (with [Blue-Green Cities](#) and BMT WBM) and peer-to-peer learning for Local Authorities on climate resilience for older people (with [BIOPICCC](#) and Catherine Max).
- 4 Improved discovery and accessibility of research outputs**, including after the end of a project, enables greater uptake and use of data and evidence. A specific post within the ARCC network team sought to identify how best the ARCC network could help researchers in managing their outputs to meet EPSRC and institutional requirements. [Advice and guidance](#) has been issued on: managing research outputs including data management plans; the researchfish reporting system; on website legacy; and on meeting funders’ expectations. Given the complex landscape in this area, the ARCC network has decided to focus on a strategic liaison role working to ensure researchers are aware of, and have the knowledge to respond to, data and information requirements and opportunities.

## Strengthening knowledge exchange

- 5 A central evidence and knowledge exchange website** provides users with information on research activities, events and funding opportunities. This is complemented by a focused monthly e-newsletter (650 recipients, 60% researchers, 40% users) and an increasingly popular Twitter feed (450 followers) which is used for the rapid dissemination of targeted information.

A new series of *So what, now what?* guides has been established to promote the implications of new research findings, and has been particularly successful in accelerating the sharing of research outputs. 14 Guides have been published to date on subjects ranging from overheating in domestic buildings to carbon capture and storage. This integrated dissemination approach is building engagement and enhancing visibility across the network.

- 6 Capturing the value of the network** seeks to identify, develop and share good practices in knowledge exchange and stakeholder engagement which have been developed within the ARCC network and to share this learning. Work is being carried out with Eclipse Research Consultants and responds to the recommendation made in the 2014 EPSRC Review of the ARCC and SUE programmes – “EPSRC should look to identify good practice in establishing collaborations and impact activities, and publish and promote widely, drawing upon the experience of the ARCC Coordination Network”. The aim is to share the key lessons learnt with other knowledge exchange networks and funding agencies.
- 7 Mapping further evidence needs and capacity building requirements** is an on-going process integrated with many existing network activities and helps both influence the direction of the network and inform wider strategic research agenda discussions. Drawing on this knowledge, expert input was requested in 2015 to inform the RCUK/Innovate UK Urban Living Partnership, the NERC Environmental Risks to Infrastructure Innovation Programme, the EPSRC Engineering Prioritisation Panel, the Joseph Rowntree Foundation District heating - Delivering affordable and sustainable energy call, the EPSRC Low Carbon Cities programme, and the UK Research Councils risk research activities workshop.

## Developing the community

- 8 Skills development for early career researchers (ECRs).** Continuing a successful *series of events* to support the EPSRC strategic aim of developing the leaders of the future, two facilitated workshops for ECRs were held in 2015 to focus on the skills needed to respond to fellowship/research calls (March 2015, January 2016). Both workshops were over-subscribed (46 participants from 21 different research institutions) and there was very positive feedback on their value, both in terms of career/skills development and in networking opportunities with peers. A number of participants from the first workshop applied to the associated LWEC Fellowship call and several others are planning to respond to other research calls.
- 9 Promoting engagement across the community** is a key task for the ARCC network, and in all activities there is a balance to be achieved between meeting the needs of a few stakeholders in depth and in encouraging wider participation in new areas. The network currently has working links with over 40 research project teams and an expanding number of over 400 local, regional and national stakeholders across the UK. Work has continued with relevant professional bodies and agencies (CIBSE, RIBA, ICE, EA, HCA, BRE) as an efficient means of engaging with the wider audience. There was also a small, but increasing engagement with European and international initiatives during 2015 both to increase the value of UK research and foster knowledge exchange opportunities.

## For the future...

- 10** For 2016, the ARCC network has a *series of knowledge exchange events* planned to respond to current policy and practice requirements. However, the work programme is deliberately flexible to allow the network to respond to emerging needs, and the team at [UKCIP](#) welcomes suggestions from stakeholders and researchers for additional coordination and engagement activities.

UKCIP at the University of Oxford provides the central coordination and management role for the ARCC network. Roger Street, UKCIP Director, is the Principal Investigator.