The Engineering and Physical Sciences Research Council (EPSRC) is investing in networks that will support skilled technical and scientific consortia able to address big contemporary challenges such as climate change. One such network is the Adaptation and Resilience to a Changing Climate Coordination Network (ARCC CN). It brings together a portfolio of research projects and stakeholders to provide the evidence needed to ensure the UK's buildings and infrastructure systems can respond to the demands of environmental and socioeconomic changes.

arcc cn

Effective collaborative research – lessons for researchers and stakeholders from the ARCC Coordination Network

The ARCC CN is an affiliated activity within the much broader Living with Environmental Change (LWEC) programme which aims to develop a community of researchers and research users to maximise the environmental, societal and economic value derived from LWEC research. Within this is a recognition that effective collaboration and knowledge exchange at all stages of research is essential to providing useful and useable outputs, and hopefully the lessons learnt here will help guide other projects and programmes.

Introduction

Academic research is increasingly having to demonstrate its value to Britain's economy, culture and well-being by addressing key national challenges such as climate change, energy security and urban sustainability.

To sustain confidence in the value of publicly-funded research, it is important to show how it is generating the essential knowledge and skills that will benefit our communities. Central to achieving maximum return for this investment is a dynamic, active collaboration between researchers, policy-makers and professional practice throughout the research process.

This collaborative research approach values the skills and contribution from all participants, with a view to creating new learning and skills that can be widely shared and applied. But this can be a challenge, with potential difficulties arising from working with researchers from different disciplines and engaging with a range of stakeholders all representing different perspectives on an issue and bringing varying levels of engagement, expectations and expertise.

The Adaptation and Resilience to a Changing Climate (ARCC) initiative has a particular focus on the built environment and infrastructure and the impact of a changing climate. At this vibrant collision of technical, social and public policy considerations, a collaborative research process is ensuring that researchers and stakeholders are able to provide information and findings that are helping improve policy and professional practice when tackling the challenges of climate change.

Because the ARCC CN involves a range of research consortia all with strong stakeholder engagement, valuable information about the research process lies within ARCC's interdisciplinary research projects. To capture this information and to enable the experiences gained by project teams to be shared more widely, a study was commissioned of six projects within the ARCC portfolio to identify approaches and activities that drive effective collaborative research. Interviews with researchers and stakeholders have provided invaluable insight into the collaborative research process. A full report is available from www.arcc-cn.org.uk/wp-content/pdfs/ACN-collaborative-research.pdf

The main recommendations are summarised here to offer an initial guide to good practice for all those delivering, coordinating and commissioning research projects across all sectors. Anyone engaged in planning a collaborative research project is strongly recommended to read the full report for a thorough assessment of the findings.
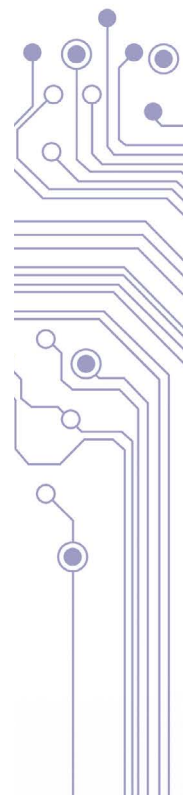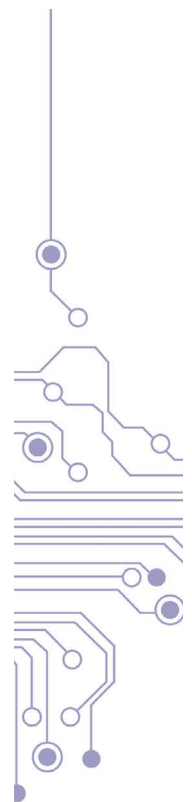
Key findings for successful collaboration

- Attend to both the tasks of the project and the team undertaking the work.

- Go beyond traditional stakeholder engagement and make best use of expertise in the team, including that of stakeholders.

- Discuss project goals and expectations throughout the research to ensure coherence of the final output.

- Allow room for movement in the project plan in recognition that circumstances and context will change during the project lifetime.

- Go beyond simple knowledge exchange to embrace broader practices of knowledge creation, discovery, mobilisation and brokerage.

- Nurture goodwill, including valuing and acknowledging contributions from the team.

- Make sure collaboration happens, by investing project time and resources in planning for, engaging in and reflecting on the processes of collaboration.

Recommendations for researchers

- Invest time and support in tasks and people that draw together disparate elements and bridge the disciplines and the academic-practitioner boundaries.

- Organising activities among researchers and with stakeholders is time consuming, so where possible arrange for this to be seen as a distinct role, for someone with the right skills.

- Accept that there will inevitably be changes during the research period. Ensure flexibility by building in strategies to minimise the disruption and identify and exploit the new opportunities.

- Be clear about the research boundaries or be open to them still being under discussion. Be prepared to restate these as needed to ensure everyone shares realistic expectations.
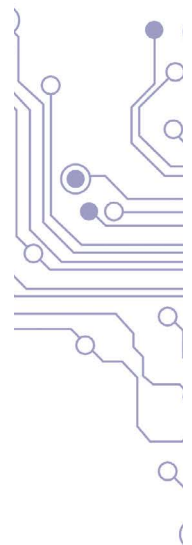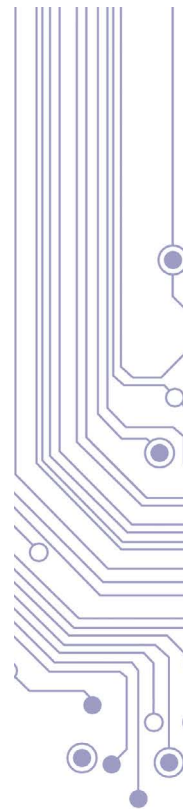
- Begin open discussions with your stakeholders as early as possible, and continue to explore and monitor your own and their motivations, expectations and tensions.

- At project meetings, as well as discussing the specific tasks of the team, allow time to address issues around the operation of the team itself.

- As a project team with your key stakeholders, aim to look beyond knowledge exchange to knowledge discovery and broader aspects of generating knowledge together.

- Be prepared to spend time exploring the perspectives, assumptions and language within all parts of your team including your key stakeholders and make full use of the skills and qualities within your team.

Recommendations for stakeholders

- Clarify early on, and revisit with the researchers, their expectations and what they are offering, what you and your organisation want from the research itself and from the process of engaging in it, and what you can and cannot contribute.

- Be realistic about how much you can offer in terms of input and how you would like to offer it.

- Maintain the dialogue with the research team throughout the project, with networks and with other stakeholders in your own and related projects.

- Be prepared to ask questions if you don't understand the language or particular terms being used and constructively challenge the research if you can't see the relevance of the task.

- Develop informal, quid pro quo arrangements to gain support from the research team in: making the case for engaging your organisation and colleagues; maintaining your organisation's commitment; delivering practical assistance for your work on adapting to a changing climate; your own or colleagues' professional development.

- When changes affect the continuity of personnel, make sure that learning from the engagement has been shared, so as to ensure the benefits for your organisation and for the project.
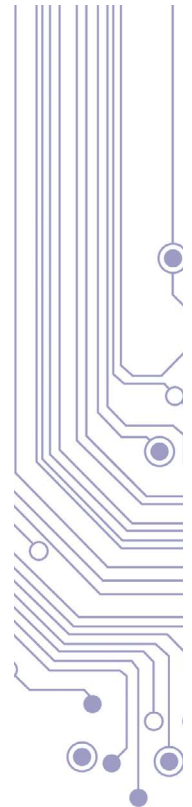
Recommendations for research networks

- Encourage new project teams to pay attention to the key messages from this work.

- Explore with research teams, stakeholders and funders the potential for formal arrangements to support stakeholders and researchers. Identify stakeholders who can play a 'cross-pollinating' role between projects: informing projects of what is emerging from others; providing an overview of what is emerging in the network; and advising on key messages for dissemination and ideas for future research.

- Focus network coordination on those activities most valued by researchers and stakeholders (e.g. distilling findings from similar projects), which challenge them to improve dialogue, and which build lasting links between projects.

- Continue to investigate with researchers and stakeholders the impact of network support on both individual project success and the wider collective success.

Some thoughts for research funders

- Explore the possibility of funding stakeholders to participate in collaborative research.

- Be open to the opportunities and the added potential for creativity, learning and innovation that arise from allowing the research to emerge and change over the period of the grant.

- Allow access to additional funds at the end of successful projects to maximise the potential impact of their outputs just as the greatest learning is emerging.

- Provide funds to the coordinating networks to allow for stakeholders with a wide interest across the research network to evaluate the key messages emerging from all the projects and provide their insights on future research areas to investigate.

For a more thorough discussion of the research and ideas that informed this briefing note, please see the full report, available at www.arcc-cn.org.uk/wp-content/pdfs/ACN-collaborative-research.pdf

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