



UK Research
and Innovation

Welcome



Engineering and
Physical Sciences
Research Council



Natural
Environment
Research Council



Arts and
Humanities
Research Council



UK Research
and Innovation

Sustainable Urban Systems and Infrastructure NetworkPlus

Tuesday 5th October 2021

Sarah Turner

Maisie England

Emily Bultitude

Thursday 7th October 2021

Sophie Laurie

Maisie England

Kristine Zaidi



Natural
Environment
Research Council



Engineering and
Physical Sciences
Research Council



Arts and
Humanities
Research Council

Webinar Meeting

Welcome and
Introduction

- Why 3 councils have joined together for this call
- Motivation for AHRC involvement
- What is a Network Plus?
- Maximising value from UKRI Investments

Network Plus strands

- Green Infrastructure
- Digital Connectivity
- Sustainable Urban Systems

Funding Available
/Timeline

- Details of funding.
- Key Dates.
- Criteria.

Panel Q&A session

Webinar concludes

Why 3 councils have joined together for this call

- What is the challenge
- Shared goals in this space e.g. NetZero, Levelling up
- Bring together the wider community to progress research challenges



Motivation

- Encourage 'system of systems' thinking and approach that will involve collaboration and the sharing of knowledge
- Supporting and evolving the wider infrastructure and urban systems research communities and extending the value of previous investments
- Engagement across UKRI portfolios and with other stakeholders
- Championing opportunities for environmental solutions in urban contexts for clean growth across UK
- Nurturing a generation of researchers who take a systems approach as the norm to address complex problems



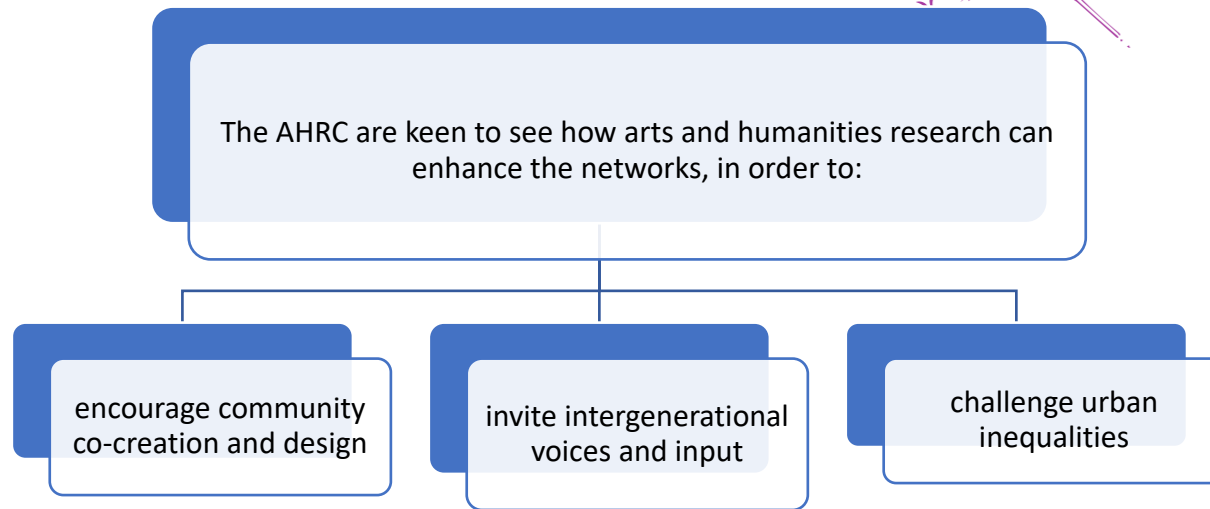
What can an Arts and Humanities research angle bring?

Our AHRC Cities researchers focus broadly on 5 key themes:

- Sustainable Housing
- Informal Environments
- Energy
- Built Environment
- Heritage



What can an Arts and Humanities research angle bring?



Arts and Humanities research has a role to play in ensuring that urban environments are safe, inclusive and serve those who live in or pass through them, by bringing together community action groups; local government authorities; policy makers; artists; designers; architects; local history/heritage curators; and many others.

Creative thought and design processes can bring innovation to buildings and infrastructures to create healthier and more efficient spaces. Research into cultures and traditions can ensure that service provision is underpinned by cultural understanding and therefore appropriate for its user.

Maximising value from UKRI investments

- As UKRI councils, we have invested significantly in the area of Urban Systems and Infrastructure over the years
- There is a current proportional value of over £50M+ in this research portfolio
- Major investments have included:
 - UK Collaboratorium for Research on Infrastructure and Cities (UKCRIC)
 - UK Urban Living Partnership
 - Green Infrastructure Innovation Projects

Maximising value from UKRI investments

- UKCRIC (the UK Collaboratorium on Research on Infrastructure & Cities) was a £137M investment delivered by EPSRC.
- UKCRIC is a joint venture allowing academia, industry, government and end users to work together to improve the nation's infrastructure.
- As part of UKCRIC, state-of-the-art facilities were created at 11 of the 14 founding universities.
- We encourage SUSI Network Plus applicants to utilise UKCRIC facilities as much as possible (where appropriate).
- On Monday October 11th from 10:00-12:30 UKCRIC is running a Facilities Showcase. You can register to attend following the links on the UKCRIC website.

What is a Network Plus call?

- The main objective of a Network Plus is to **create new multidisciplinary (and/or Interdisciplinary) research communities** focused around a complex challenge.
- The aims are to:
 - **Transfer experimental techniques, models and research insights**
 - **Promote mobility and/or strengthen relationships** between academe, universities, industry, third sector and other local leadership.
- We are inviting proposals for networks to lead in addressing how Infrastructure, sustainable Urban Systems and Cities fits in with the UK Government's Build Back Better Plan, as well as the Government's Levelling-up agenda and achieving Net-Zero.

What is a Network Plus call?

What is the ‘+’ in a Network Plus

A Network Plus has additional funding to deliver the following activities:

- **Feasibility studies** (but not to demonstrator phase or beyond TRL 4) that can be allocated to researchers
- Activities to identify and disseminate key research challenges in the area, for example **horizon-scanning** studies
- Activities to **facilitate impact and advance policy**, such as reports, websites and briefings
- **Secondment** support, including scoping of potential opportunities, travel and subsistence, etc
- Activities to support **career development**
- Activities to **connect** users, industry and other stakeholders with the research base

Network Plus Strands

You can apply for one of three networks:

- Green infrastructure development linked to blue, brown and grey infrastructure
- Low carbon connected digital infrastructure with considerations between urban and rural environments
- Sustainable urban systems, to become more resilient and adaptable across natural systems and infrastructure.

It is possible for proposals to cross strands where necessary

Strand 1: Green Infrastructure development linked to blue, brown, or grey infrastructure

- We seek to transform our understanding and the development of our infrastructure so that it can be sustainable, resilient and adaptable.
- The idea of **Green** Infrastructure (GI) evolved during the 1990s in response to a growing recognition that those planning and designing complex urban areas often ignored the interactions between issues such as public health, flood management, housing delivery, biodiversity, and climate change adaptation.
- What do we mean by blue, brown, and grey infrastructure?
 - **Blue** infrastructure refers to water elements like rivers, canals, ponds, water treatment facilities etc.
 - **Brown** infrastructure refers to soils, interacting organic matter etc
 - **Grey** infrastructure refers to structures such as dams, seawalls, roads, pipes etc.

We are open to creative solutions across this infrastructure space.



Strand 2: Low carbon digital infrastructure with considerations between urban and rural environments

This will address a longstanding problem of connectivity between places, which has been expediated due to recent global challenges.

- Linking the digital world to the real world in real time
- Connectivity across the UK
- Responsible use of sensors, AI and controls
- Link to work of related initiatives in digital twinning

Strand 3: Sustainable Urban Systems (SUS)

We seek to enable economic growth, whilst achieving environmental enhancement:

- ecosystem health of existing and future UK urban environments
- benefits of blue and green spaces in urban systems
- urban climate feedbacks
- solutions for net-zero carbon emissions
- urban function post-COVID



Key information

Financials

There is a joint pot of £3 Million; collective pot to galvanise the community.

- £2,350,000 available from EPSRC
- £500,000 available from NERC
- £150,000 available from AHRC

EPSRC, NERC and AHRC expect to fund in the region of £1,000,000 per strand.

Awards will be made for a 24-month duration.

Projects must start by 1 March 2022.

Key information

TIMELINE

| | |
|---------------------------------|------------------------|
| 28 September 2021 | Opening date |
| 5 October 2021 14:00 | First webinar |
| 7 October 2021 10:00 | Second webinar |
| 28 Sept to 21 Oct 2021 | Expression of interest |
| 9 November 2021 16:00 | Closing date |
| Week commencing December 2021 | Expert panel meeting |
| Week commencing 10 January 2022 | Interviews |
| Week commencing 31 January 2022 | Decision date |
| 1 March 2022 | Start Date |



UK Research
and Innovation

For any queries, please email: susinetworkplus@epsrc.ukri.org

Questions?



Q. Do we need to focus primarily on cities in the UK or can we focus on creating a network of global cities?

A. This call is UK focused and the ambition should be to support NetZero, levelling up and/or regional agendas. Collaborations with international partners can be included however spend needs to be in the UK.

Q. Can an organisation with Public Sector Research Establishment (PSRE) status apply?

A. UKRI eligible PSREs and Independent Research Organisations are welcome to apply.

Q. Is the overall budget £3 million to cover 80% full economic cost (FEC), so that the total value funded would be £3.6 million with HEIs covering 20% of the FEC; or is £3 million the total value of bids of which UKRI will fund 80% i.e. £2.4 million?

A. The 100% FEC for this call is £3.6 million. The funding available from EPSRC, NERC and AHRC totals £3 million at 80% FEC. Applications can be 20% higher with the HEI covering 20%.

Q. Will one award be made per strand?

A. The intention is to award at least one network per strand however there is flexibility in this. Bids will be peer reviewed to ensure the strongest applicants receive funding. Bids can go across multiple strands.

Q. Why are only 5 Co-Investigators allowed on the application?

A. The NetworkPlus call follows EPSRC policy on the number of Co-Is allowed for NetworkPlus applications. The Co-Is would coordinate the networks activities and are not the only 5 people that would be involved in the network.

Q. Would this programme accept applications from those working in disciplines not ordinarily affiliated with EPSRC, NERC and AHRC?

A. We encourage all multi-disciplinary/inter-disciplinary collaborations which are inclusive of arts and humanities, social and economic research as well as environmental and engineering.

Q. Do networks have to be new to apply for this NetworkPlus?

A. Networks can built on an existing activity but the actions to be undertaken in the network plus must be new or additional to the current network.

Q. How can non-academic organisations get involved?

A. Please complete the Expression of Interest [here](#). We will review EOIs received and help to join up proposals where possible.



UK Research
and Innovation

Thank you

