



Engineering and  
Physical Sciences  
Research Council

# EPSRC Digital Economy

## Sustainable and Equitable Digital Society Priorities

December 2020

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A series of abstract, hand-drawn orange lines of varying lengths and orientations, some crossing each other, creating a dynamic, scribbled effect. These lines are positioned in the lower half of the slide, partially overlapping the teal background.

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Sign up to the Digital Economy Theme newsletter:  
<https://epsrc.ukri.org/newsevents/alerts/>

# UK Research and Innovation

- Nine leading academic and industrial funding councils, working together to deliver **knowledge with impact**
- Funded via BEIS
- Work with the government to invest over £7 billion a year in research and innovation
- Partner with academia and industry



**UK Research  
and Innovation**



# Engineering and Physical Sciences Research Council

- Broadly scientific and technical remit
- Digital Economy – sociotechnical research at interface of ICT and social sciences

engineering



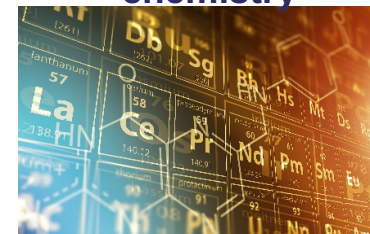
materials



mathematics



chemistry



physics



healthcare technologies



digital economy



cybersecurity



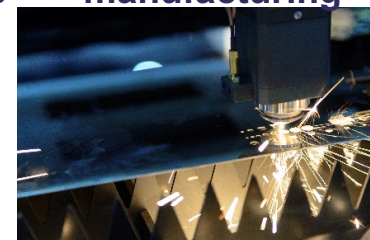
ICT



quantum technologies



manufacturing



energy



# Digital Economy Theme - overview

## Sociotechnical research at interface of ICT and social sciences

- Collaboration between different UKRI councils (EPSRC, AHRC, ESRC, Innovate UK)
- Coordination with Government Departments e.g. DCMS, DFID, DFIT, etc.

## Research we support

- Technical, but people/user focused
- Multi/interdisciplinary, applied research
- Co-creation with users (society, business and/or government)



# Digital Economy Theme



## Vision

To rapidly realise the transformational impact of digital technologies on aspects of community life, cultural experiences, future society, and the economy by promoting and supporting high-quality, applied, cross-disciplinary, adventurous research and training.



*“Technology alone is not enough. It’s technology married with liberal arts, married with humanities, that yields the results that make our hearts sing”*

*- Steve Jobs, 2011*

# Digital Economy Priorities



## Five priorities

- Frame funding activities
  - Refreshed in 2020 through extensive stakeholder engagement
1. Trust, Identity, Privacy and Security (TIPS)
  2. Content Creation and Consumption (CCC)
  3. Beyond a Data-Driven Economy (B2DE)
  4. Sustainable Digital Society (EDS)
  5. Equitable Digital Society (SDS)

<https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/digital-economy-theme-strategy/priority-areas/>

# Digital Economy Priorities



## Five priorities

- Frame funding activities
  - Refreshed in 2020 through extensive stakeholder engagement
1. Trust, Identity, Privacy and Security (TIPS) Overlaps with NHSF Societal Challenges
  2. Content Creation and Consumption (CCC) ← 1: Improved wellbeing
  3. Beyond a Data-Driven Economy (B2DE)
  4. Sustainable Digital Society (EDS) ← 3: Climate emergency; 5: Sustainable development
  5. Equitable Digital Society (SDS) ← 2: Digital society; 4: Equality and inclusivity

<https://epsrc.ukri.org/research/ourportfolio/themes/digitaleconomy/digital-economy-theme-strategy/priority-areas/>

# Sustainable Digital Society (SDS)

## Focus

- The use of digital technologies to address anthropogenic environmental impacts and improve environmental sustainability, whilst considering the impacts of the digital technologies themselves.

## Challenges

- Using digital technologies to shift patterns of consumption and foster more sustainable ways of living and economic arrangements
- Exploring the tensions between the push for increasing digitalisation and the associated energy costs and environmental impacts
- Making digital technologies be sustainable end-to-end





# SDS – key activities

## Workshop

- Call scoping workshop run June 2020
- Attendees from across academia, industry, public and 3<sup>rd</sup> sector
- Aim: to establish the main research challenges and opportunities within the EPSRC "Sustainable Digital Society" priority area
- Full outputs: <https://epsrc.ukri.org/files/funding/calls/2020/sustainable-digital-society-workshop-full-combined-outputs/>

# Digital Economy: Sustainable Digital Society

## Three key research challenge areas

1. Embedding environmental sustainability throughout digital technologies and services, taking into account technology/service design and end use, and the social, economic and/or policy context.
2. Digital technologies and services to facilitate behaviour change at all levels of society, leading to decision-making that promotes environmental sustainability at scale.
3. Digital technologies and services to enable one or more of the following:
  - A circular economy;
  - Environmentally sustainable supply chains;
  - An environmentally sustainable built environment;
  - Environmentally sustainable organisational processes within the public, private and/or third sectors.

# Digital Economy: Sustainable Digital Society

## Call for proposals

- Call closed October 2020
- £5M total; to fund approx. 4–7 projects
- Proposals received, assessment underway
- Successful projects announced April 2021

## Timeline



# Equitable Digital Society (EDS)

## Focus

- Addressing issues of social division and inequality within the digital economy; promoting the co-creation and design of appropriate digital technologies and services that will support a fairer, more inclusive society.

## Challenges

- Using technology be used to make socioeconomic life fairer
- Algorithmic inequality: ensuring that data-driven/algorithmic decision-making does not result in prejudice and discrimination
- Bridging the “digital divide” and digital literacy: can digital technologies address the challenges of equitable adoption and use of technology across societies



# EDS – key investments

## Existing research and training centres

- Not-Equal NetworkPlus (Newcastle University)
- Digital Civics Next Stage Centre (Newcastle University)
- Digital Civics Centre for Doctoral Training (Newcastle University)
- Centre for Doctoral Training in Web Science Innovation (University of Southampton)

**NOT-EQUAL**



## Upcoming investments

- Currently scoping a call for proposals (planned for 2021-2022)
- Planning to invest in a new NetworkPlus (~£1-2M centres to bring together new research communities and identify future research challenges through smaller-scale activities)

The UKRI logo consists of the letters 'UK' stacked above 'RI' in a white, bold, sans-serif font, set against a dark blue square background.The EPSRC logo is a stylized 'L' shape composed of two teal-colored squares, one larger than the other, positioned to the left of the text.

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# Thank you

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