DICE NETWORK+
DIGITAL INNOVATION & CIRCULAR ECONOMY

Flexible Funding Call

10 July 2025, 1:30-3:00pm

Engineering and Physical Sciences Research Council
University of Exeter
The University of Nottingham
The Open University
Queen's University Belfast
University of Salford Manchester
University of Sheffield
University of Southampton
University of Surrey
Swansea University Prifysgol Abertawe

Agenda

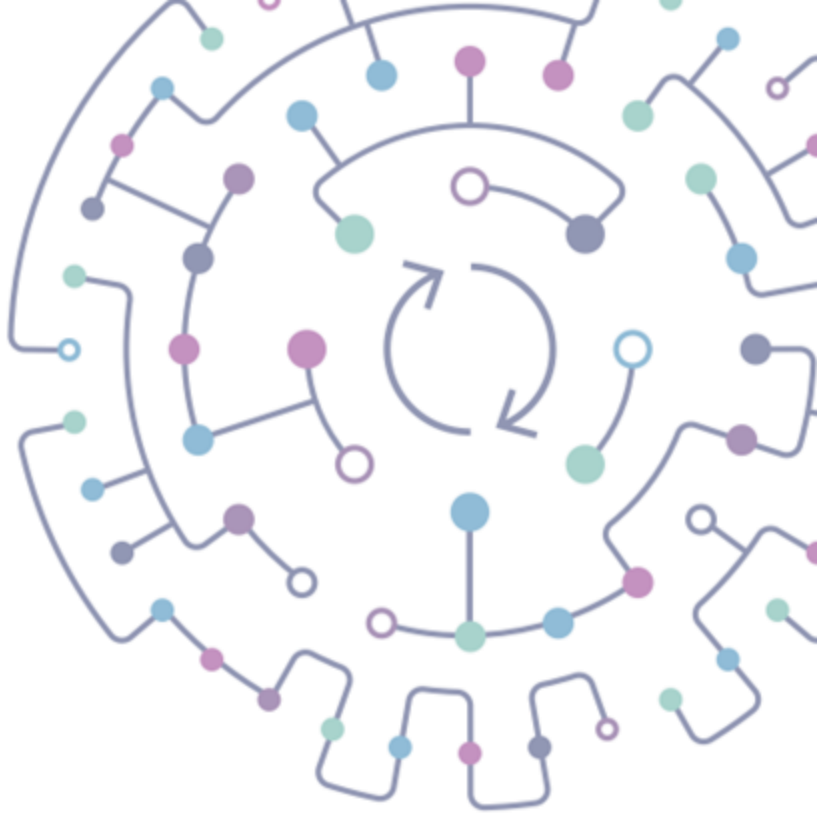
DICE Network+ overview	Fiona Charnley	15 min	13:30
Flexible Fund overview	Fiona Charnley	10 min	13:45
Knowledge Exchange Placements	Georgie Hopkins	10 min	13:55
Feasibility Studies	Georgie Hopkins	10 min	14:05
General discussion and Q&A	All	40 min	14:15
Next steps	Fiona Charnley	5 min	14:55

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

DICE Network+

Professor Fiona Charnley



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Project overview

"Leveraging the power of the digital revolution to drive a circular economy across sectors and value chains"

UKRI EPSRC funded Network+

3-year term: Jan 2025 – Dec 2027

Budget: £2,500,000

Partner Organisations:

Ellen Macarthur Foundation, High Value Manufacturing Catapult, Rolls Royce, Airbus, SAP, National Physics Laboratory, Faraday Institute, Royce Institute, Amazon, Ebay, Electrolux, OEMs from across the semi-conductor industry

Nine universities, including University of Exeter as lead

University of Exeter

University of Southampton

Queen's University Belfast

University of Sheffield

The Open University

University of Salford Manchester

The University of Nottingham

University of Surrey

Swansea University Prifysgol Abertawe

Key Challenge Area 1

ENABLE

Realising the potential of the digital revolution to enable a circular economy across sectors.

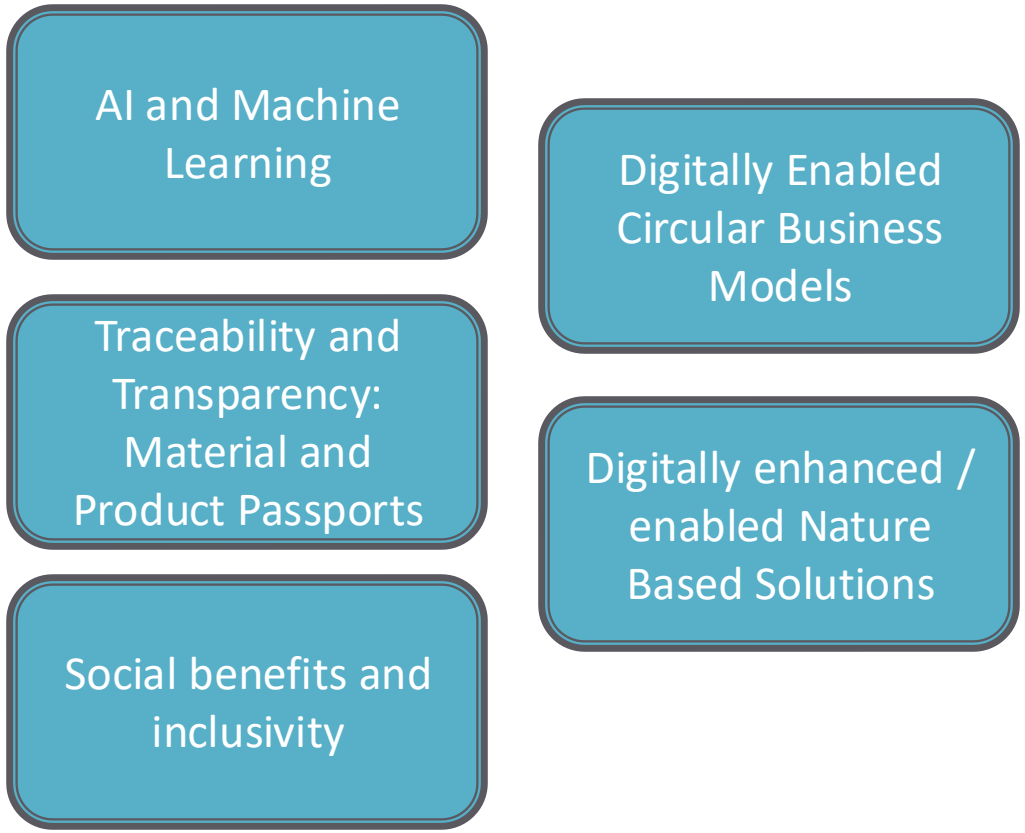
- The main Digital Technologies as enablers of the circular economy are AI, IoT, Blockchain and Big Data Analytics.
- Most DT's enable the CE by optimising operations, resource use, maintenance, and resource recovery through Smart Management Models including Product Lifecycle Managment tools and Supply Chain Management tools
- Most of the literature focuses on the second and third phases of the CE value chain,
  - extending the lifespan of a product/part
  - material value recovery.
- There is a gap in the research into DT applications for phase 1 (smarter product use and manufacturing) especially for Refuse and Redesign.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Prioritisation of ENABLE Challenge

- Utilising digital advances to support the delivery of nature-based solutions, addressing regeneration and biodiversity challenges.
- Applying advances in AI and Machine Learning to accelerate the adoption of circular innovation within one or more industrial sectors.
- The application of digital technologies to accelerate the widescale adoption of different circular business models (CBMs) in different sectors such as Product as a Service (PaaS), including but not limited to Digital Product Passports.
- Exploring the socio-technical aspect of new circular digital system adoption.
- Addressing Equality, Diversity and Inclusion (EDI) in the circular digital revolution, ensuring a socially beneficial transition to an inclusive future model.



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Key Challenge Area 2

EMBED

Embedding sustainability and circularity within the design and development of digital and communication technologies.

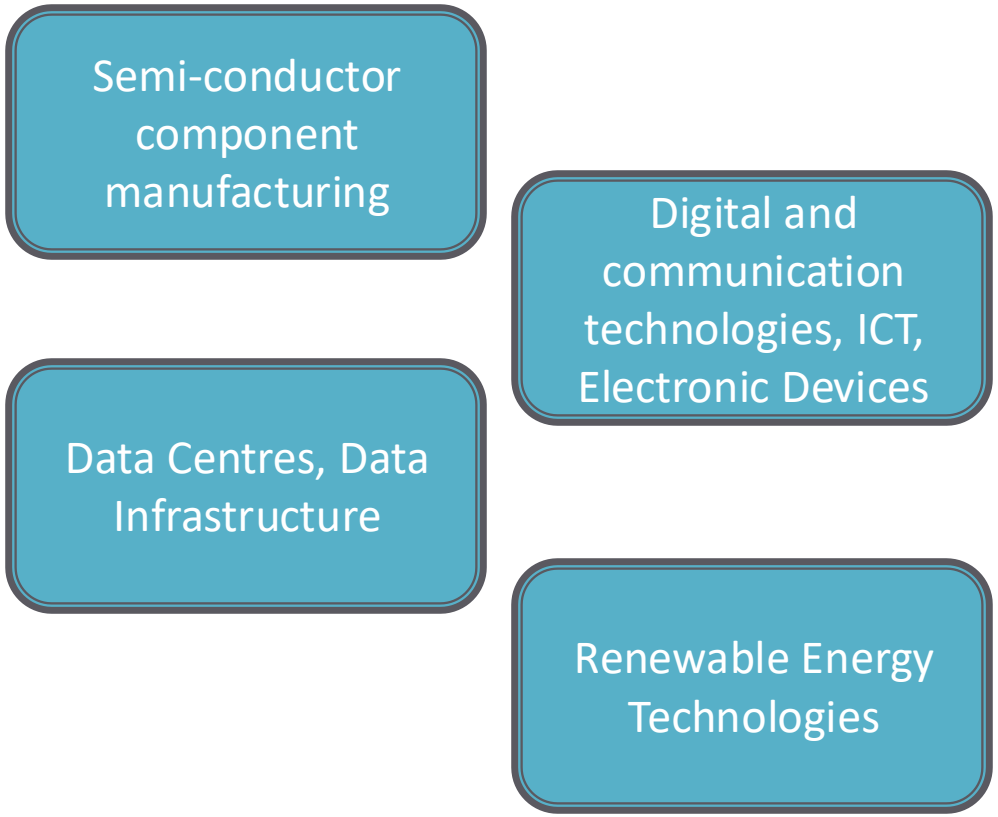
- Transforming industries from linear to circular will need a radical holistic systems approach. The literature suggests that studies so far have focused on CE within downstream functions (production, use and disposal) within a linear system, instead of redesigning products, services and the system itself.
- There is more literature available on how digital technologies can enable the CE, although this is disjointed and lacks prioritisation.
- Research currently falls short in covering challenge area 2 and there is far less on how CE principles can be embedded into digital technology design.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Prioritisation of EMBED Challenge

- How to embed circular innovation within priority sectors e.g. UK semi-conductor component manufacturing, aligning to the National Semiconductor Strategy (2023) and within renewable energy technologies.
- Circular design and development of digital and communication technologies, incorporating sustainable materials, modular architectures, and strategies for product life extension and end-of-life recovery.
- The application of circular approaches to digital infrastructure, such as safer energy storage systems, retrofitting for the ICT sector and the potential role of robotics and automation.
- Circular system design to address the environmental footprint of AI, exploring the concept of data as a manufactured product.



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Flexible Fund overview

Professor Fiona Charnley

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Flexible Funding

Fund	Total funding pot (80% fEC)	Max funding per project (80% fEC)	Expected no of projects	Application schedule
Knowledge Exchange Placements	£50,000	£5,000	10	First round deadline 8 Sept 2025, rolling quarterly applications
Feasibility Studies	£300,000	£50,000	6	First round deadline 8 Sept 2025, Second round open Feb 2026 (if required)
Demonstrator Studies	£100,000	£50,000	2	Open Feb 2026

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Setting the ambition

We have an ambitious approach with a desire to create impact and meaningful change within the sector.

Our Flexible Funds provide opportunity to undertake speculative and potentially high-impact research to accelerate innovative solutions that promote the adoption of a digitally enabled circular economy.

We are focused on:

- Engaging Early Careers Researchers.
- Supporting interdisciplinary collaboration of academic, industry and policy partners.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

EDI focus

We understand that excellence will be achieved through recognising the value of every individual. We want to encourage, support and respect ideas from everyone and ensure our inclusive activities are representative of the diverse circular economy community.

Our ambition is to instil these values across all our activities, supporting a diverse cohort of participants and welcome applications from diverse and underrepresented groups.

- Assessment panel composition will be considered with the aim of maintaining EDI, with panel members encouraged to undertake equality and diversity training prior to appointment.
- The application process has been designed to minimise any potential impact of bias in decision making.
- The application form includes EDI considerations as a core element.
- Applicants will be invited to complete a voluntary EDI questionnaire to enable review of our funding activities for diversity.

You are welcome to discuss any specific requirements that will enable participation – please contact Georgie Hopkins by email DICE_Network@exeter.ac.uk.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Responsible Innovation

Responsible Innovation is a process championed by EPSRC, that takes the **wider impacts** of research and innovation into account. It aims to ensure that **unintended negative impacts are avoided**, that barriers to dissemination, adoption of research and innovation are reduced, and that the positive societal and economic **benefits of research and innovation are fully realised**.

We are keen to ensure that our funding holds the values of Responsible Innovation in mind. In this case, we expect researchers involved in funded feasibility studies to **anticipate, reflect and engage** on the wider **ethical and societal impacts**, implications and value of their work, entering into dialogue with the public and other stakeholders where appropriate, and **respecting the views of others**.

Further resources can be accessed through the UKRI website.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Joining the community

We expect our flexible fund awardees to form a core part of the DICE Network+ community.

Awarded projects are required to acknowledge funding support from UKRI and the DICE Network+ when promoting their work.

Successful applicants will be expected to participate in DICE Network+ events and will be required to present project updates in person at the network's annual conference (we recommend this consideration is included in the project costing).

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Eligibility

- Funding is available to higher education institutions, research council institutes and independent research organisations in the UK that are normally eligible for UKRI funding. Full guidelines can be found here.
- Standard UKRI eligibility rules apply.
- Subcontracting is allowed, although we would not expect to fund proposals where more than 40% of the award is subcontracted.
- Individuals may submit or be named on more than one application.
- Matched funding and collaboration with industry, policy and third sector organisations or other programmes is permitted.
- Project Partners must be UK based organisations with a research and/or innovation base and will not receive funding directly from the award, but will play a role in the proposed research.
- An organisation should only be named as a Project Partner if it is providing specific contributions (either in cash or kind) to the project, detailed in a Letter of Support. Any financial or other interests with any project partners named in the application must be disclosed to ensure integrity of research.
- Full details are available within the Funding overview documents (see later slide)

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

We're here to support

Project development

Supporting the development of your concept and project application

Mentoring

Helping you access and build your project support network for lasting impact

Matchmaking

Linking academics to industry & policy partners from across our network

MATCHMAKING SERVICE

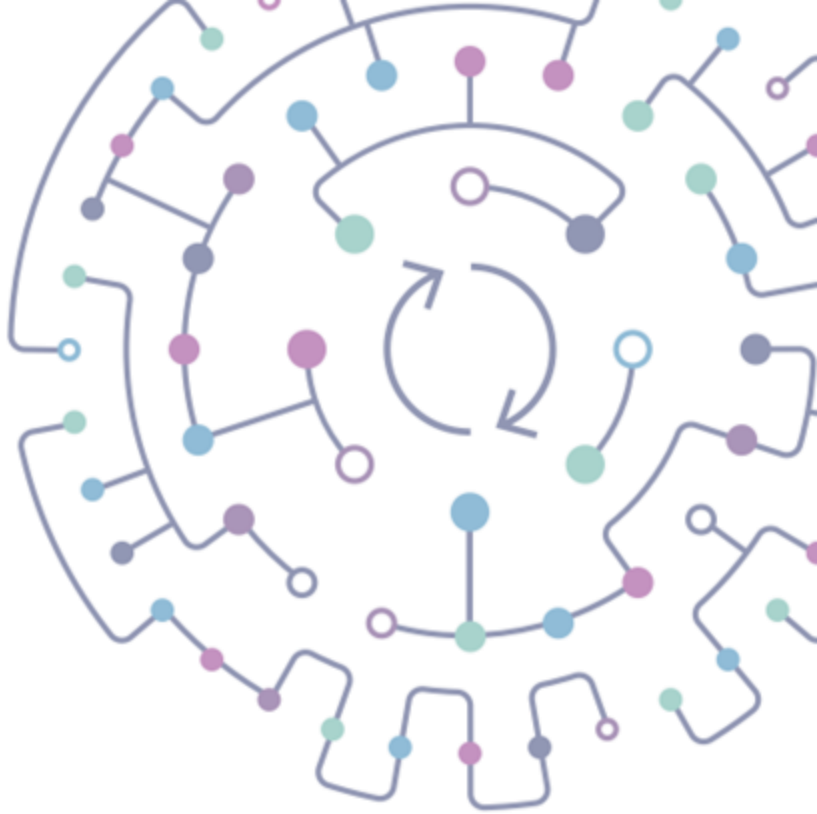
Please complete our short form to share your project idea or research area.

We can provide introductions across our network.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Knowledge Exchange Placements



Georgie Hopkins, Network Manager

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Overview

Purpose: To provide interdisciplinary and cross-sectoral knowledge exchange related to the DICE Network+ key challenge areas.

Funding Available: £50k to fund at minimum 10 placements

Total funding per placement: £5,000 at 80% fEC

Timeline:

- Now open to applications - rolling assessment on a quarterly basis.
- First application deadline **midday 8 September 2025**.
- Subsequent deadlines midday 8 Dec 2025 & midday 9 Mar 2026.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Objectives

- Well-planned and hosted placements, of 1 to 3 months with UK or international organisations, providing academic partners with first-hand experience in an industrial or government context across disciplines related to our key challenge areas.
- The development and sharing of knowledge with hosts, through outputs such as short reports, white papers or conference papers, detailing identified research gaps and proposed steps to address them.
- The funds may also be used for academics to attend events or conferences outside of their ‘normal’ disciplinary area, research or practice.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Funds available

- Funding of a maximum of **£5,000 per placement**
- **Awarded at 80% fEC** – maximum total placement cost £6,250
- The lead institution will need to provide the remaining 20% cost.
- Funding can cover direct costs such as travel, subsistence, accommodation and related consumables. It is not intended to be used to cover salary costs.
- Lead institutions will be expected to support overheads for any staff that are on placement, and applications where a portion of the placement costs are met by industry funding are also welcomed.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Application process

Overview document provides full details - download here

Forms to submit – available to download here

- **Part A**: Identifying information (required)
- **Part B**: Case for support (required)
- **EDI Questionnaire**: one per applicant (voluntary)
- **Project Partner Letters of Support:** (if required, with individual letters combined into one PDF document)

Submit by email to Georgie Hopkins dice-network@Exeter.ac.uk in advance of deadline

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Project Lead confirmation

On submission, the Project Lead will need to confirm that:

- You have fully completed the required documents
- The proposed project has been appropriately costed and the budget has been approved by authorised staff at the lead institution.
- The proposed project is eligible to receive UKRI funding.
- The proposed project adheres to UKRI's principles of Responsible Innovation.

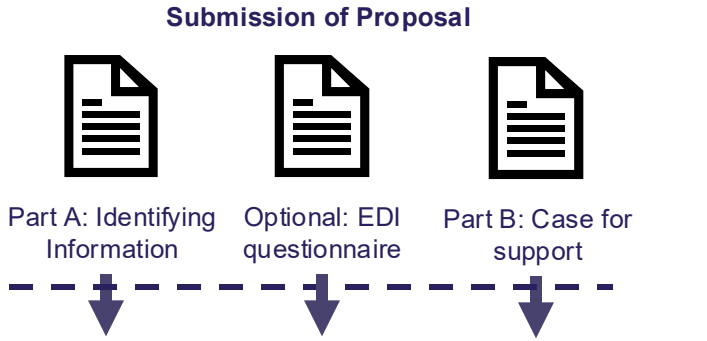
DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Evaluation process

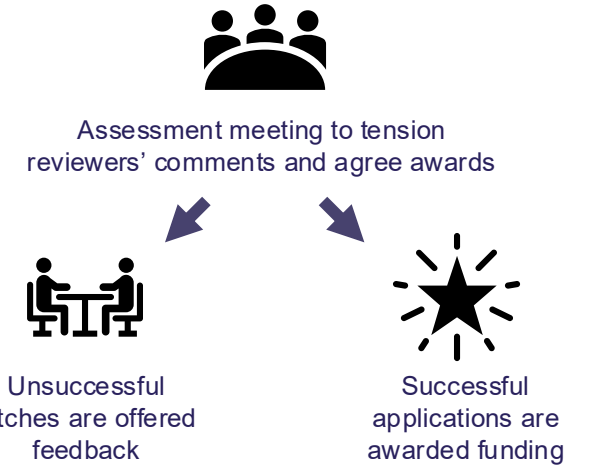
The evaluation process will follow the proposed best practice for promoting EDI in research and funding as presented in [this reflective paper](#).

Pre-application: DICE Network+ team are available to provide advice and guidance. An open access webinar provides an overview of the application process with opportunity for Q&A. The recording is made available online for future reference.



Stage 1: Research idea is anonymously reviewed by two reviewers, who are randomly selected from a pool of expert reviewers from the DICE Network+ team and Advisory Group. Network manager uses the identifying information to ensure no conflict of interests emerge and to track proposals. Optional EDI questionnaire provides monitoring detail. Individual panel members assess the application based on the selection criteria only.

Stage 2: A panel chair is appointed to lead the assessment meeting and ensure EDI considerations have been suitably considered. Panel members use the assessment meeting to review individual applications and agree awards.



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Selection criteria

We will be assessing against:

Criteria	% Contribution of Total Score
Quality and novelty of proposed study	30
Complementing the work and challenges of the DICE Network+	30
Likelihood of achieving wider impact*	20
Consideration of EDI principles	10
Project management	10

For each of the criteria, a minimum threshold of 50% of the available score is required for an application to be considered for funding.

*across disciplines and/or sectors

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Timeline

First round:

- Submission — Midday 8 September
- Panel review — 9 to 29 September
- Decision notification — 30 September

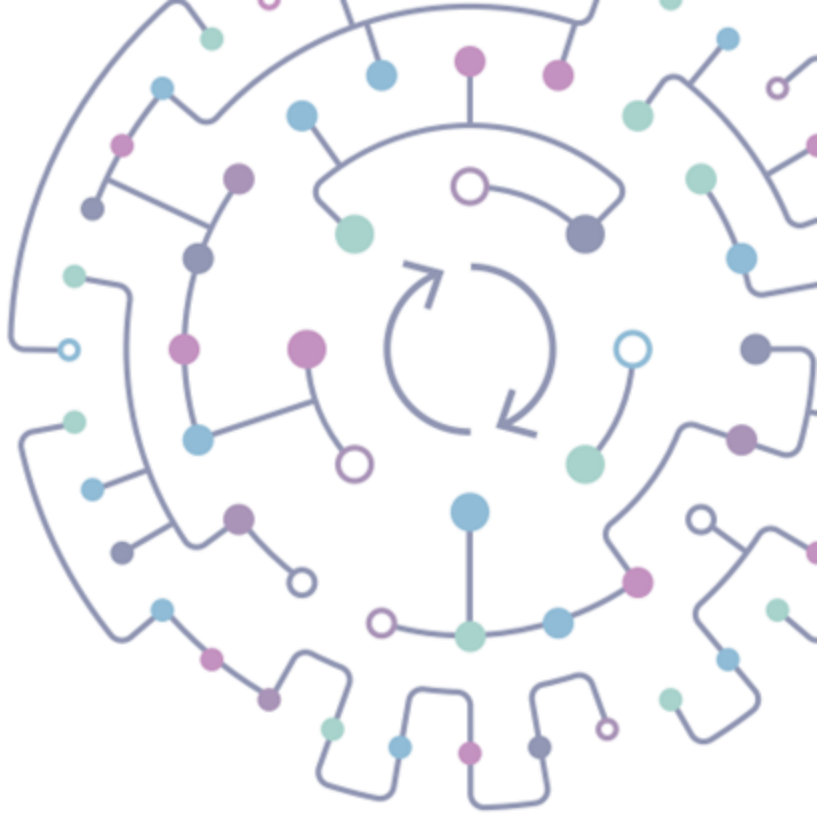
Subsequent rounds

- Round 2: submission midday 8 Dec 2025 / decision 9 Jan 2026
- Round 2: submission midday 9 Mar 2026 / decision 30 Mar 2026

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Feasibility Studies



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Overview

Purpose: to undertake speculative and potentially high-impact research to accelerate innovative solutions related to the DICE Network+ key challenge areas (see earlier slides).

Funding Available: £300k to fund 6 projects

Total funding per placement: £50,000 at 80% fEC (Total Project value £62,500)

Timeline:

- First round now open to applications
- Application deadline **midday 8 September 2025**.
- Second round expected to open Feb 2026 (if required).

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Objectives

- Research to accelerate innovative solutions that promote the adoption of a digitally enabled circular economy.
- Innovative, evidence based & applied research that takes a **whole system approach**.
- The study should **result in increased confidence** in the proof of concept developed, which then has potential to attract further prioritisation and investment in the area.
- Applications should include or be led by an **early career academic** and should involve **at least one industrial or government partner** to ensure real world application and impact.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Funds available

- Funding of a maximum of **£50,000 per project**
- **Awarded at 80% fEC** – maximum total project cost £62,500.
- The lead institution must be willing to provide the remaining 20% fEC.
- Funds can cover both directly incurred and directly allocated costs, including investigator time, travel and subsistence appropriate to delivery of the project, and consumables.
- The duration of each individual project can be between 6 and 9 months from date of award.
- Applications where a portion of the project costs are met by industry funding are also welcomed.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Application process

Overview document provides full details - download here

Forms to submit – available to download here

- **Part A**: Identifying information (required)
- **Part B**: Case for support (required)
- **EDI Questionnaire**: one per applicant (voluntary)
- **Project Partner Letters of Support:** (if required, with individual letters combined into one PDF document)

Submit by email to Georgie Hopkins dice-network@Exeter.ac.uk in advance of deadline

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Project Lead confirmation

On submission, the Project Lead will need to confirm that:

- You have fully completed the required documents.
- The proposed project has been appropriately costed and the budget has been approved by authorised staff at the lead institution.
- The proposed project is eligible to receive UKRI funding.
- The proposed project adheres to UKRI's principles of Responsible Innovation.

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

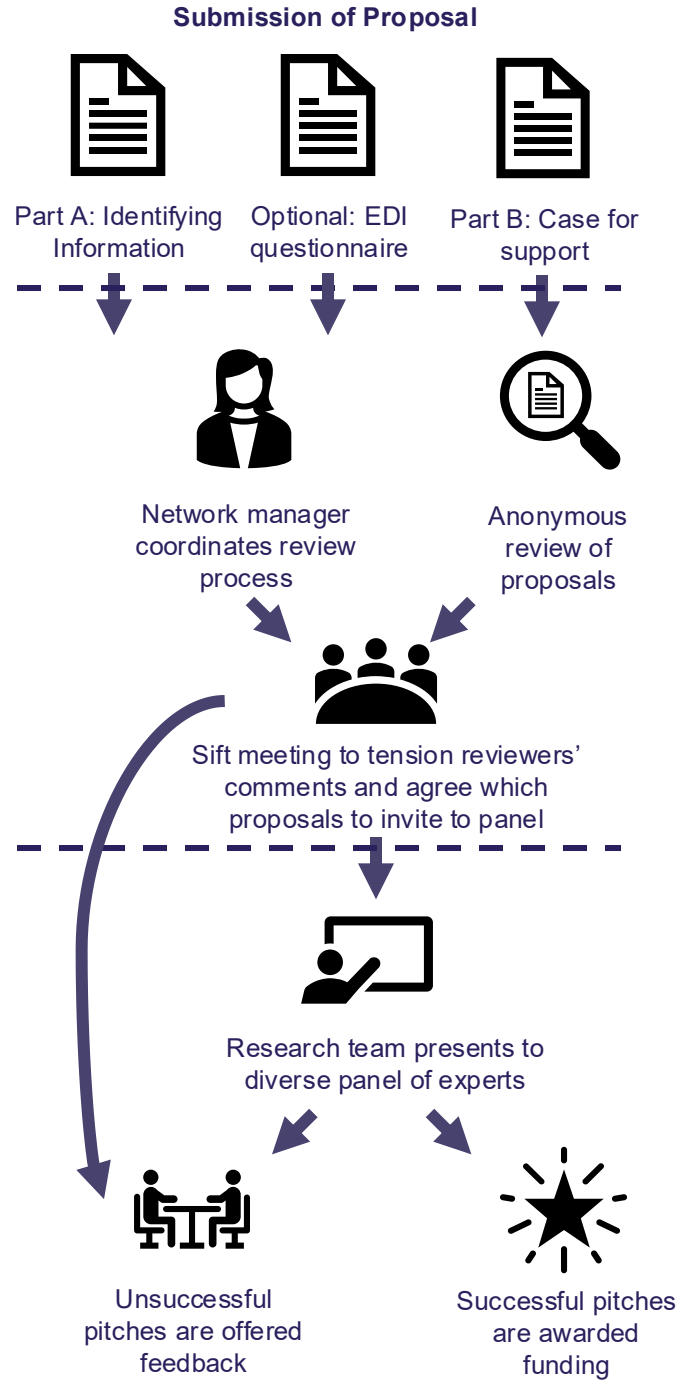
Evaluation process

The evaluation process will follow the proposed best practice for promoting EDI in research and funding as presented in [this reflective paper](#).

Pre-application: DICE Network+ team are available to provide advice and guidance. An open access webinar provides an overview of the application process with opportunity for Q&A. The recording is made available online for future reference.

Stage 1: Research idea is anonymously reviewed by two reviewers, who are randomly selected from a pool of expert reviewers from the DICE Network+ team and Advisory Group. Network manager uses the identifying information to ensure no conflict of interests emerge and to track proposals. Optional EDI questionnaire provides monitoring detail. Individual panel members assess the application based on the selection criteria only.

Stage 2: Successful projects are invited to pitch to a diverse panel. Panel members receive both Part A and Part B of the proposal at least two-weeks ahead of the panel. A panel chair is appointed to lead the discussions and ensure EDI considerations have been suitably considered. Individual panel members assess the pitch based on the selection criteria only. Panel members do not discuss their decision on whether the feasibility will be funded until all pitches have completed.



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Selection criteria

We will be assessing against:

Criteria	% Contribution of Total Score
Quality and novelty of proposed placement	30
Complementing the work and challenges of the DICE Network+	30
Likelihood of achieving wider impact*	20
Consideration of EDI principles	10
Project management	10

For each of the criteria, a minimum threshold of 50% of the available score is required for an application to be considered for funding.

*across disciplines and/or sectors

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Timeline

• Application submission	Midday 8 September
• Panel review	9 to 29 September
• Shortlist notification	30 September
• Panel Pitch Day	14 October
• Award notification	21 October
• Feasibility Study start	5 January 2026
• Feasibility Study last end date	30 October 2026

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Inspiration: Digital Decarbonisation Project

Feasibility study from CE Hub in Aug 2022

Initial scope: build the foundations of a 'metal decarbonisation dashboard' that would enable organisations to evaluate their metal digital carbon footprint over the lifecycle of the metal components.

Now: broader digital decarbonisation initiative, working with WEF, OECD and wider industry partners on the impact of exponential digital data growth.

THE VOLUME OF DIGITAL DATA CREATION IS EXPLODING

THE POWER IT CONSUMES IMPACTS THE ENVIRONMENT

DATA IS NOT CARBON NEUTRAL

DATA CENTERS ALONE EMIT MORE CO2 THAN THE AVIATION INDUSTRY

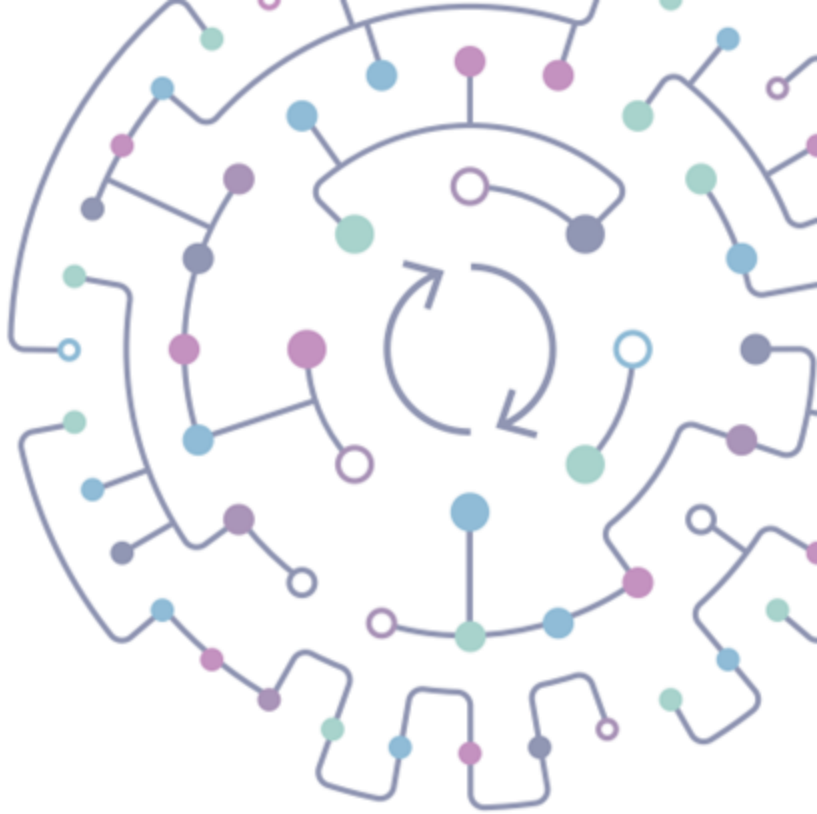
DROWNING IN DARK DATA

IT'S ESTIMATED THAT AROUND 65% OF DATA STORED IS ONLY USED ONCE – OR NOT AT ALL!

More feasibility study examples can be seen on the [CE Hub website]

General discussion Q&A

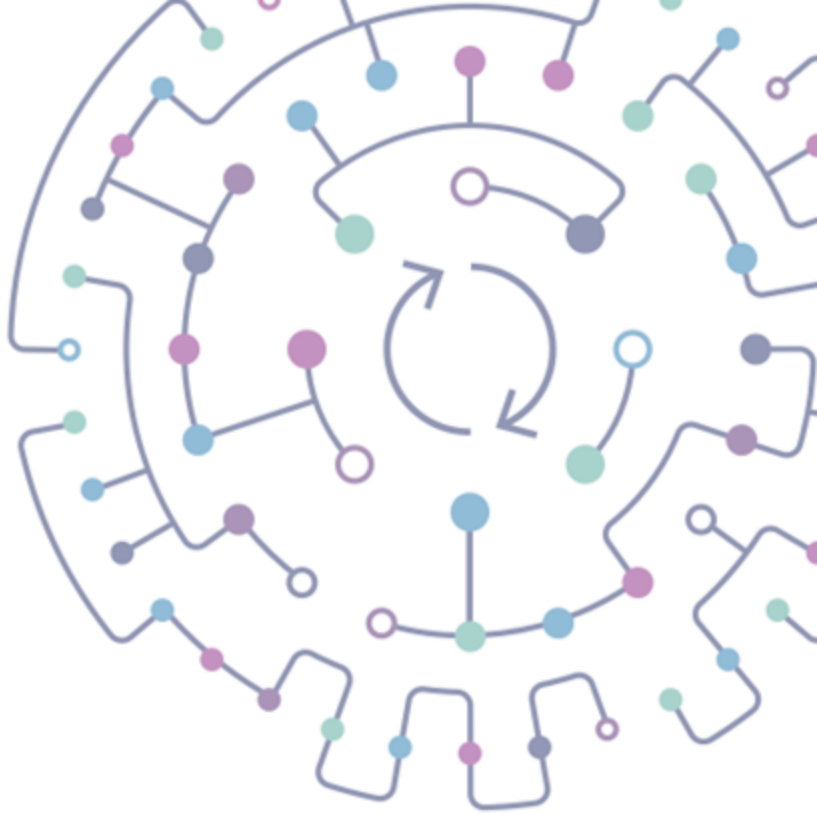
Facilitated by Fiona Charnley



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Next steps



DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

Progress your application & connect for support!

MATCHMAKING SERVICE

Please complete our short form to share your project idea or research area. We can provide introductions across our network.

Deadline for completed applications for both knowledge exchange placements & feasibility studies is **midday Monday 8 September.**

We're pleased to help with any specific requirements that will enable your participation.

Please contact Georgie Hopkins on DICE-Network@Exeter.ac.uk

DICE NETWORK+ DIGITAL INNOVATION & CIRCULAR ECONOMY

UKRI Engineering and Physical Sciences Research Council

DICE NETWORK+
DIGITAL INNOVATION & CIRCULAR ECONOMY

Thanks for your time

Visit our website
Connect on LinkedIn
Sign up to our newsletter

Engineering and Physical Sciences Research Council
University of Exeter
The University of Nottingham
The Open University
Queen's University Belfast
University of Salford Manchester
University of Sheffield
University of Southampton
University of Surrey
Swansea University Prifysgol Abertawe