Welcome

The webinar will begin at 10:30

Agenda

1 **Introduction**

2 **Background, scope and expectations**
The context and objectives of the funding opportunity

3 **Application and assessment**
More detail around how to apply and how you will be assessed.

4 **Question and answer session**
Please use the Q&A function to submit questions.

5 **End**

UKRI Engineering and Physical Sciences Research Council

Opportunity background, scope and expectations

EPSRC investments aligned to UKRI strategy

People	Places	Ideas	Innovation	Impacts
Investing in people, skills and teams

Embedding equality, diversity and inclusivity | Local, national and international partnerships, nurturing excellent research and strengthening clusters across UK nations and regions

World-leading capital and digital infrastructure | Investing in 3 discovery research priorities:

• Physical and Mathematical Sciences Powerhouse
• Frontiers in Engineering and Technology
• Digital Futures | Co-working with business

Connecting research and innovation

Accelerating translation, commercialisation and knowledge exchange | Mission-inspired research with four priorities:

• Engineering Net Zero
• AI, Digitalisation and Data: Driving Value and Security
• Transforming Health and Healthcare
• Quantum Technologies. |

Opportunity background

- The UK has internationally leading strengths in terahertz (THz) frequency science and technology and hosts world-leading THz instrumentation

- Germany is one of the leading countries in both the research and industrial application of terahertz technology

- The **INtegrated TERahErtz syMTems Enabling Novel Functionality (INTEREST) priority programme** funded by the German Research Foundation (DFG) enables novel functionalities and applications in THz science and applications, and fosters interdisciplinary science by connecting historically isolated scientific disciplines

- Two joint EPSRC-DFG workshops were run in 2022 and 2024 to discuss areas of potential future collaboration between the UK and Germany in the THz space
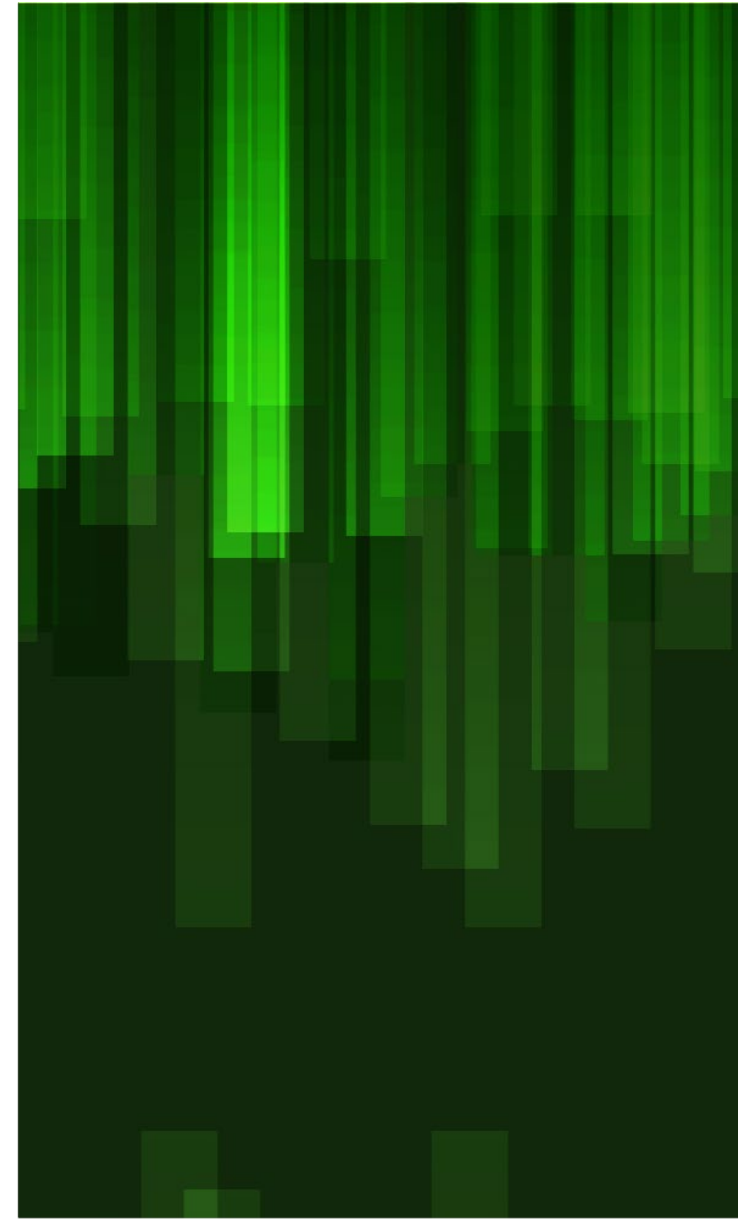
Opportunity objectives

EPSRC aim to support collaboration of UK institutions with German partners to broaden research in THz within the UK and internationally.

Successful projects will engage with partners based in Germany to:
- deliver world leading and impactful collaborative research in the THz space
- advance knowledge in THz
- support the development of novel THz technologies and systems

The projects will also:
- organise a joint showcase or event in the final year, working with the **Network in terahertz systems funding opportunity**, aimed at stakeholders including international, business, government and other
- present at least two highly impactful case studies by the end of the grant
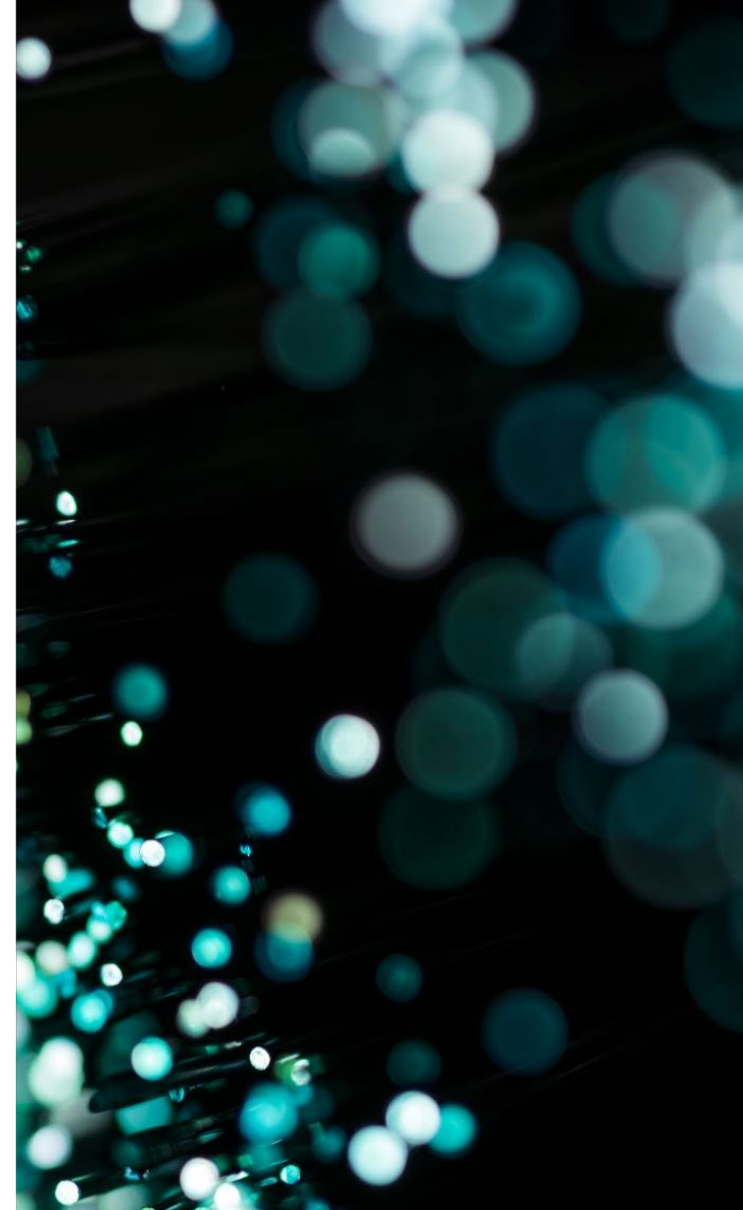
Opportunity scope

The proposed research should advance UK knowledge in THz systems and gain new insights in the area of materials, electronics and photonics

- The majority of the research should fall within the THz remit
- The novelty and majority of activity should focus on development of novel technologies

Potential focal areas:
- new physical phenomena technologies and devices
- multi-functional integrated systems
- fundamental THz science, extension of theory, modelling
- system-integratable sources and local oscillators
- development of detectors
- on-chip integration
- integrated time-domain and frequency-domain systems for imaging and spectroscopy
- THz time-domain quantum optics
- hollow core/other fibres for communications or other applications
- other relevant areas

Alignment with INTEREST programme

- The EPSRC funding opportunity is thematically aligned with the **INTEREST priority programme** funded by the German Research Foundation (DFG)

- DFG have had input on the EPSRC opportunity scope

- The two programmes are **entirely separate**

- Assessment of submissions will be carried out solely by EPSRC

- There is no expectation of matched DFG funding

- There is no requirement to submit an application to DFG

- If you wish to submit a separate application to DFG covering a similar topic area, you are welcome to do so

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THz Research in Germany
### Three DFG funded research consortia …

Mobile material characterization and localization by electromagnetic sensing
DFG funded Collaborative Research Center TRR 196
Thomas Kaiser , Universität Duisburg-Essen

INTEREST (INtegrated TERahErtz sySTems enabling novel functionality)
DFG funded priority programme SPP 2314
Ullrich Pfeiffer, University of Wuppertal

METERACOM (MEtrology for TERAhertz COMunication)
DFG funded research group FOR 2863
Thomas Kürner, TU Braunschweig
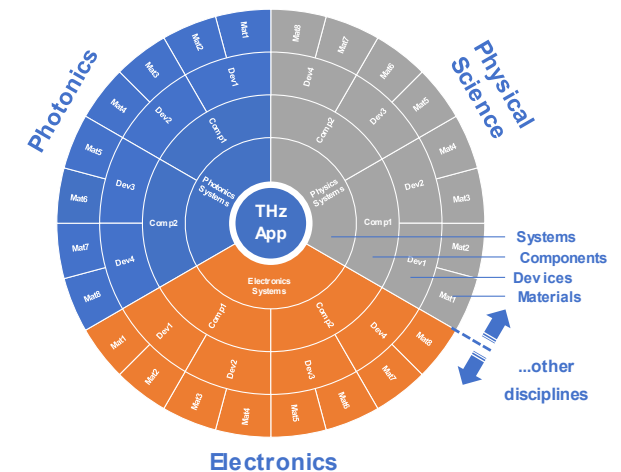
Collaboration requirements

- This funding opportunity aims to bring UK institutions together with German partners to broaden research in THz

- There is an expectation that there will be at least one project partner based in Germany integral to the project

- The second phase of the **INTEREST priority programme** will start at the beginning of 2025

- If you do not already have collaborators in Germany, you may wish to use the list of funded INTEREST projects as a starting point for identifying potential partners
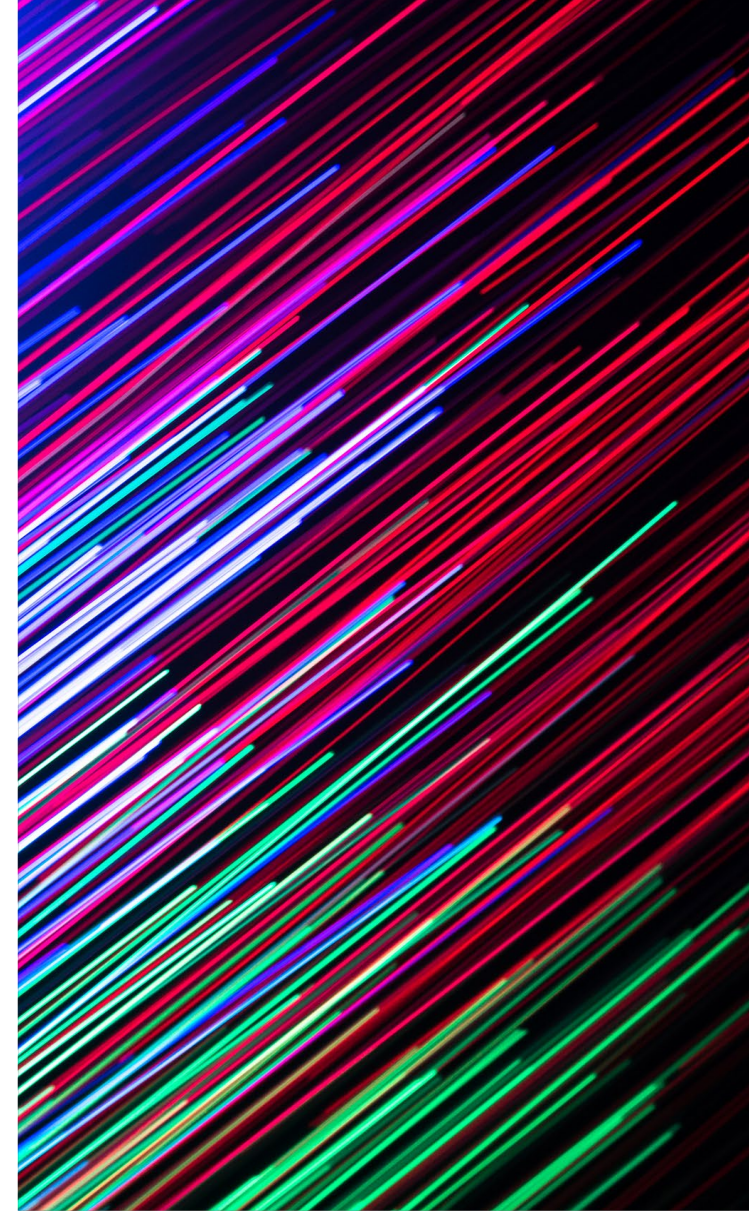
Collaboration with German researchers

Individuals based in Germany can be involved in the grant as:
- **visiting researchers** for up to 12 months
- **project partners**
- members of advisory boards

Research staff/PDRAs from Germany may be recruited to UKRI grants
- Research staff must be based in the UK for the duration of the project
- Visa fees can be covered by the grant

German institutions and staff cannot:
- be listed as project leads or co-leads
- receive funding directly from UKRI for e.g. staff, equipment or estates

Please note that the 'project co-lead (international)' role applies exclusively to the **UKRI and Research Council of Norway Money Follows Cooperation agreement**, and can only be used to include co-leads from Norway. **This cannot be used to include co-leads from Germany.**

Project partners

A project partner is a collaborating organisation playing an integral role in the project

Project partners may provide:

- cash
- in-kind contributions: expertise, staff time, use of facilities, etc.

There is an expectation that there will be **at least one** German project partner integral to the project.

The following applies to all project partners:

- Project partners may receive **small** amounts of grant funding to cover **minor** project partner costs, e.g. travel costs to attend project meetings
- Project partner staff time would **not** normally be covered
- Any costs requested for project partners need to be fully justified in the application
- Project partners may receive funds via subcontract if they are providing services or equipment for a specific activity
- All subcontract costs must go through a formal procurement process audited by the UK host research organisation
- See more detail on **Project partners letter of support – UKRI**

Project partners

- You are welcome to include other UK or international project partners, in addition to partners based in Germany

- Project partner contributions must be explained in detail in the project partner letter of support

- Well-written letters can significantly strengthen research proposals by demonstrating the benefits of the collaboration, and the potential impacts of the research

- A monetary value must be put on in-kind contributions:
  - staff time
  - access to equipment
  - provision of data
  - software
  - materials, etc.

- Details of how this support relates to the proposal should also be included in the body of the application

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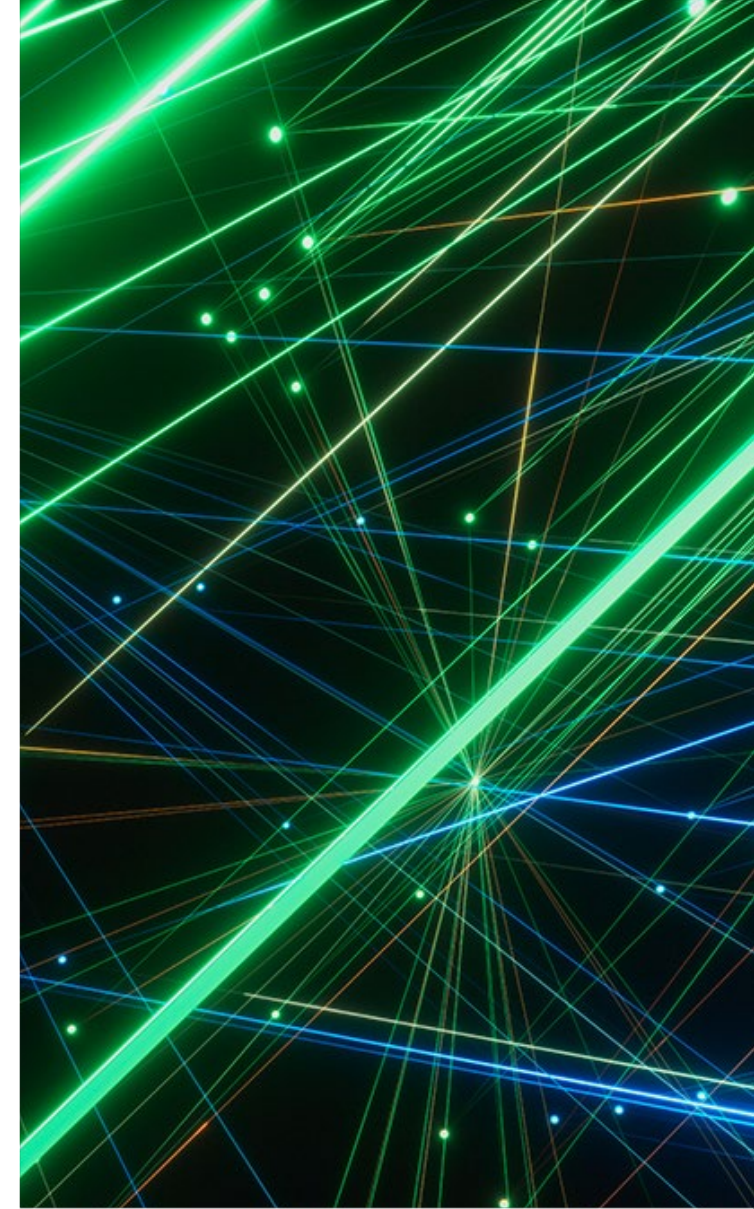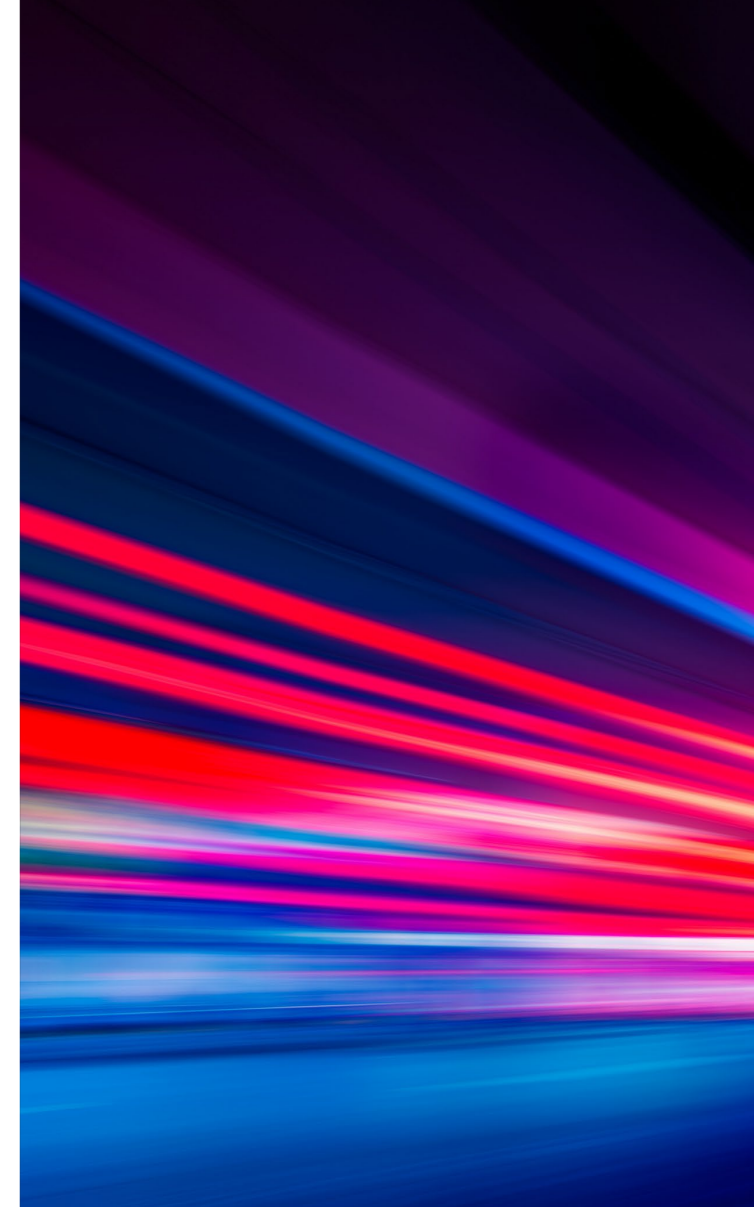
Responsible Research and Innovation

- Science and technology are transformative forces that have improved our world and our lives in many ways, and will most likely continue to do so

- Responsible research and innovation (RRI) acknowledges that innovation can raise questions and dilemmas, is often ambiguous in terms of purposes and motivations and unpredictable in terms of impacts, beneficial or otherwise

- RRI is particularly important when research concerns 'dual use' technologies, which could be used for both civilian and military purposes

- All applications to UKRI must address the key ethical or RRI implications and issues relating to the proposed work as a core aspect of the application

For more information visit:

Framework for responsible research and innovation – UKRI

Trusted research and innovation

- 'Trusted research' is a research and innovation sector term for protecting the UK's intellectual property, sensitive research, people and infrastructure from potential theft, manipulation and exploitation, including as a result of interference by hostile actors
- UKRI's trusted research and innovation (TR&I) programme aims to:
  - help manage and provide guidance and support in ensuring collaborative activities are done safely and securely
  - minimise the risks associated with operating within a global research and innovation ecosystem while maximising the opportunities
- **National Security and Investment Act (2021)**: government may scrutinise/intervene in business transactions (including universities and research) in **17 key areas of the economy**, to protect national security
  - e.g. communications, artificial intelligence, computing hardware, data infrastructure, dual use technologies
- UKRI grants within these areas are subject to enhanced due diligence processes

Trusted research and innovation

In the context of this funding opportunity:

- It is important to consider movement of assets throughout the project, including intellectual property (IP)
- If assets (including IP) will be transferred between the UK and Germany, this may require an export control license
- EPSRC carries out routine checks on submitted applications
- Consider trusted research where there is potential for dual use
- See further guidance on **Trusted research and innovation – UKRI**
- More information on **Export controls applying to academic research - GOV.UK (www.gov.uk)**

Application and assessment

Opportunity key points

- This EPSRC opportunity aims to support **three** research grants

- You can apply for £1,875,000 at 100% full economic cost (FEC)

- EPSRC will fund **80%** of the FEC, up to £1.5 million

- Project duration should be 36 months

- Apply on the Funding Service (TFS)

Opportunity timeline

Opening date
13 August 2024

Closing date
22 October 2024

Reviews sent for applicant response
January 2025

Assessment panel
February 2025

Successful applicants informed
March 2025

Successful projects commence
June 2025

Assessment criteria

- **vision** of the project

- **approach** to the project

- **capability** of the applicant or applicants and the project team to deliver the project

- **ethical** and **responsible research and innovation** considerations of the project

- **data management** and sharing

- **resources** requested to do the project and **cost justification**

Vision

For the vision, you will need to explain how the proposed work:

- **aligns strategically to the funding opportunity aims and scope**
- is of excellent quality and importance within or beyond the field(s) or area(s)
- has the potential to advance current understanding, generates new knowledge, thinking or discovery within or beyond the field or area
- is timely given current trends, context and needs
- impacts world-leading research, society, the economy or the environment

Within the vision section we also expect you to:

- identify the potential direct or indirect **benefits** and who the **beneficiaries** might be

Approach

For the approach, you will need to explain how the proposed work:

- is effective and appropriate to achieve your objectives
- is feasible, and comprehensively identifies any risks to delivery and how they will be managed
- uses a clear and transparent methodology
- summarises the previous work and describes how this will be built upon and progressed
- will maximise translation of outputs into outcomes and impacts
- describes how your, and if applicable your team's, research environment (in terms of the place, and relevance to the project) will contribute to the success of the work

Within the approach section we also expect you to:

- demonstrate access to the appropriate services, facilities, infrastructure, or equipment to deliver the proposed work
- provide a project plan including milestones and timelines in the form of a Gantt chart or similar

Applicant and team capability to deliver

In this section, you will need to demonstrate:

- Why you are the right individual or team to successfully deliver the proposed work, and demonstrate how you have:
  - the relevant experience (appropriate to career stage) to deliver the proposed work
  - the right balance of skills and expertise to cover the proposed work
  - the appropriate leadership and management skills to deliver the work and your approach to develop others
  - contributed to developing a positive research environment and wider community

Resources and cost justification

In this section, you will need to demonstrate:

- What you will need to deliver your proposed work, and how much it will cost, including the more costly resources like:
  - project staff
  - significant travel for field work or collaboration (but not regular travel between collaborating organisations or to conferences)
  - any equipment that will cost more than £10,000
  - any consumables beyond typical requirements, or that are required in exceptional quantities
  - all facilities and infrastructure costs
  - all resources that have been costed as 'Exceptions'

We will need you to demonstrate how the resources you anticipate needing for your proposed work:

- are comprehensive, appropriate, and justified
- represent the optimal use of resources to achieve the intended outcomes
- maximise potential outcomes and impacts

Ethics and responsible research and innovation (RRI)

In this section, you will need to demonstrate:

- The key ethical or RRI implications and issues relating to the proposed work, including:
    - the relevant ethical or responsible research and innovation considerations
    - how you will manage these considerations
- If you are collecting or using data:
    - any legal and ethical considerations of collecting, releasing or storing the data including consent, confidentiality, anonymisation, security and other ethical considerations and, in particular, strategies to not preclude further reuse of data
    - formal information standards with which your study will comply
- If you do not think that the proposed work raises any ethical or RRI issues, you will need to explain why.

Data management and sharing

Data management is of particular importance when working with international partners

In this section, we expect you to provide a data management plan that clearly details how you will comply with UKRI's published **data sharing policy**, which includes detailed guidance notes.

Assessment process

- We will invite experts to provide written reviews for your applications
- You will have the opportunity to provide a written response to the reviews
- The same set of experts will be invited to use the evidence and your applicant response to assess the quality of your application during a panel meeting
- The panel will rank submitted applications and make a funding recommendation
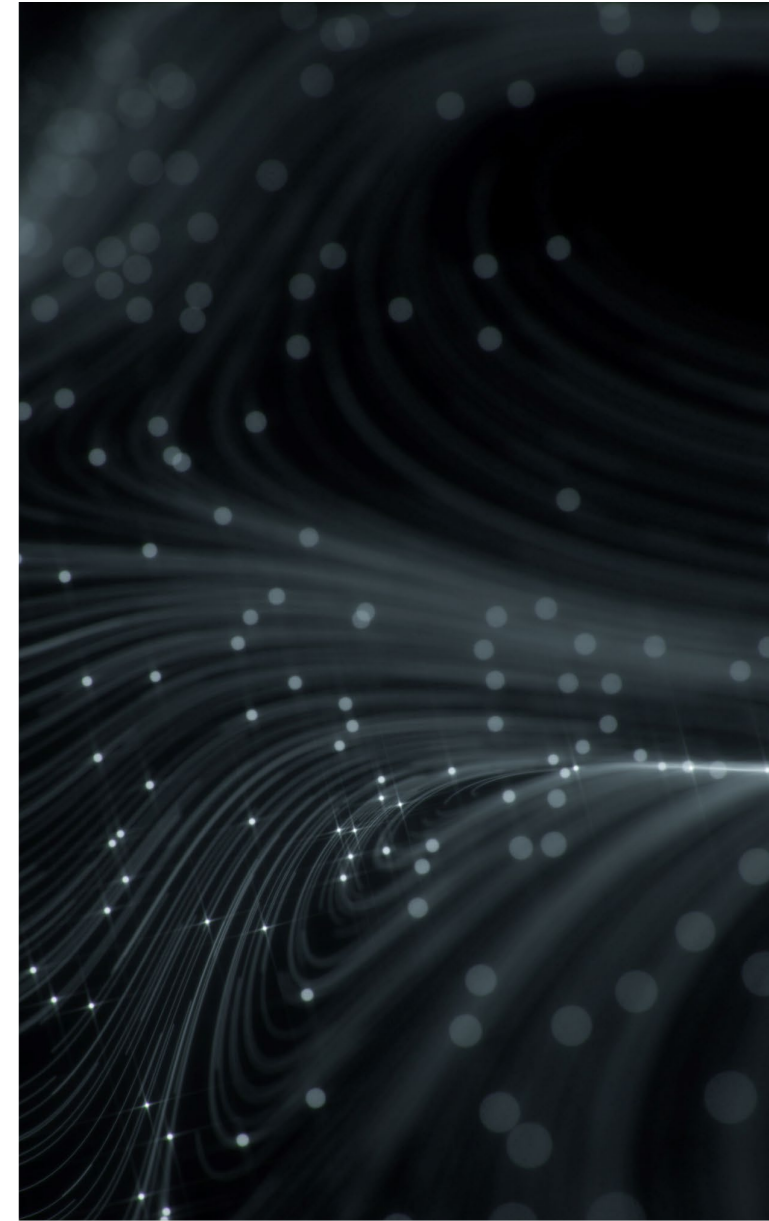- The three highest-ranking applications will be funded
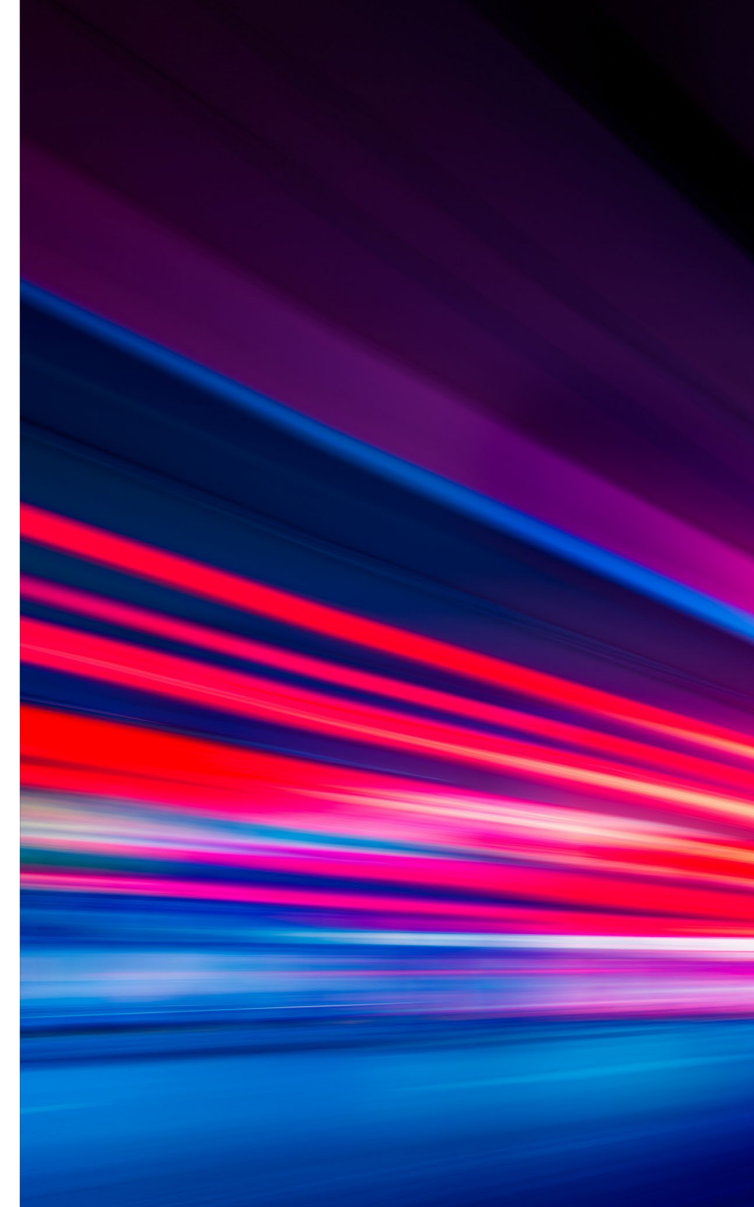
Final key points

- Applications close **Tuesday 22 October 2024 16:00 UK time**

- For questions related to this specific funding opportunity please contact: **ict.theme@epsrc.ukri.org**

- Any queries regarding the system or the submission of applications through the Funding Service should be directed to the helpdesk: **support@funding-service.ukri.org**

- The following will be uploaded to the funding opportunity online
  - A recording of this webinar
  - The slides, containing all links
  - A summary of the webinar Q&A
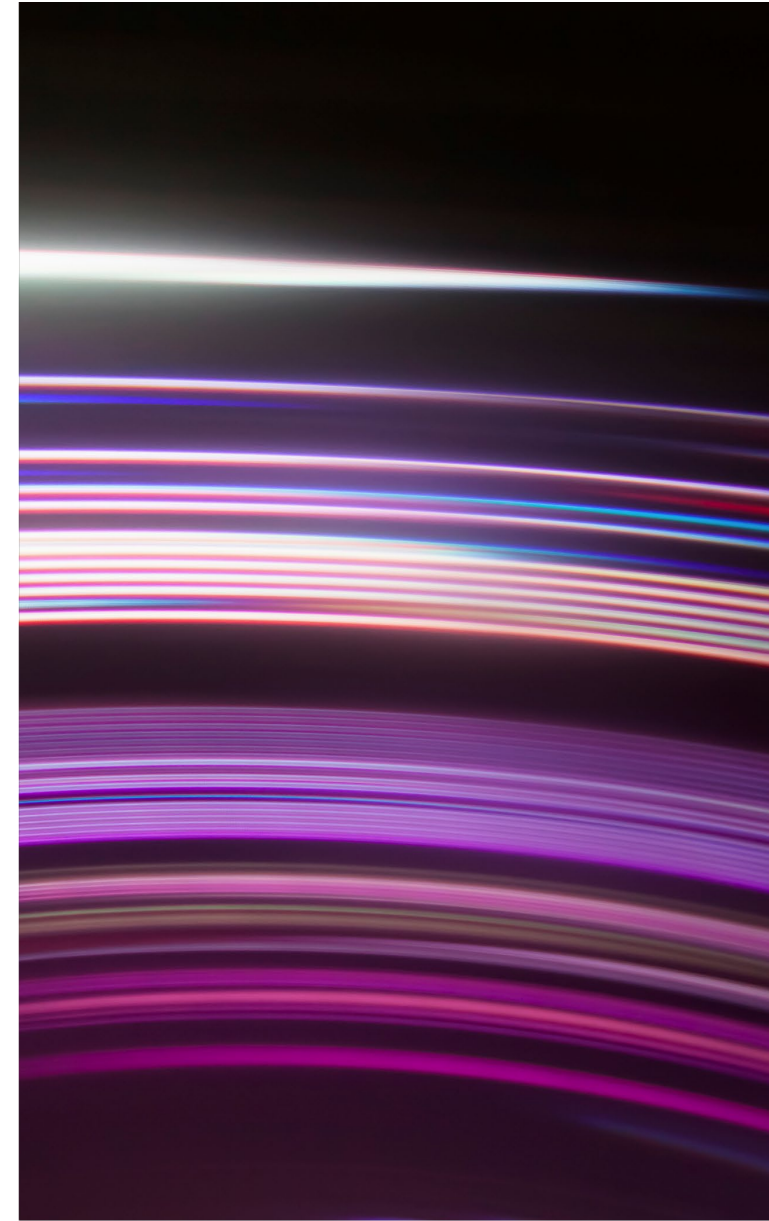
Q&A

- 10 minute break
- Please use this time to submit questions using the webinar Q&A function

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Thank you

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