

The logo for EPSRC, consisting of the letters 'EPSRC' in a bold, purple, sans-serif font, with a thin purple horizontal line above and below the text.

Engineering and Physical Sciences
Research Council

Quick Reference

Please note that you must read the full Call document for guidance before submitting your application

Connected Nation Pioneers Competition

Call type: Expression of interest

Closing date: Thursday April 26 2018

Connected Nation Pioneers is an exciting partnership between the Engineering and Physical Sciences Research Council (EPSRC) and key stakeholders. We have come together to recognise exceptional UK doctoral students whose research contributes towards the development of a Connected Nation. This competition is being sponsored by Dstl, Facebook, BT, Samsung, Huawei, Thales, Amazon and NVIDIA.



Applicants to this competition must be able to clearly communicate and demonstrate the excellence and exploitation potential of their research and show how it contributes to the advancement of the Connected Nation Ambition (<https://www.epsrc.ac.uk/about/plans/deliveryplan/prosperityoutcomes/connected/>) under one of the prize categories.

All applicants reaching the final stage of the competition will receive free media and presentation training and will have an excellent opportunity to network with representatives from both academia and industry. These finalists will be invited to a VIP Awards Ceremony Dinner, held in Manchester at the Museum of Science and Industry.

Each of the four category winners will receive a prize of £2,000 and an NVIDIA graphics card, with the overall winner receiving a further £1,000.

The prosperity of the UK as a **Connected Nation** will be driven by as-yet-unimagined, new industries and services, and by innovative, more cost-effective ways of delivering existing services. Achievement of this vision depends upon research leading to transformational technologies which connect people, things and data together, in safe, smart, secure, trustworthy and productive ways.

Success in this vision will be a major driver of economic growth and efficiency across all regions and sectors of the UK.

The Connected Nation Pioneers Competition is currently accepting initial entries in the form of expressions of interest. Further details of the competition process and how to apply can be found below.

Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all of the available talent. The Research Councils have together developed the ambitious RCUK Equality, Diversity and Inclusion Action Plan <http://www.rcuk.ac.uk/funding/diversity/>.

In line with the RCUK Diversity Principles, EPSRC expects that equality and diversity is embedded at all levels and in all aspects of research practice. We are committed to supporting the research community in the diverse ways a research career can be built with our investments. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcome applications from students who job share, have a part-time hours arrangement, or who need flexible working arrangements. Please see our Equality and Diversity webpages <https://www.epsrc.ac.uk/funding/equalitydiversity/> for further information.

Eligibility

Students in the final two years of their doctoral training are eligible to apply providing they are registered at a UK institution. Applicants' doctoral training does not need to be funded by EPSRC to participate in this competition.

Applicants' research must fall into EPSRC remit and demonstrate its relevance to EPSRC's Connected Nation Ambition: <https://www.epsrc.ac.uk/about/plans/deliveryplan/prosperityoutcomes/connected/>. EPSRC remit covers engineering and the physical sciences - we fund research in ICT, mathematical sciences, engineering, chemistry, materials and physics.

Applicants can select to apply to one primary category as detailed under How to Apply. Whilst we anticipate that this will cover, for example, ICT, Digital Economy, Mathematical Sciences and Quantum Technologies research, the competition is not restricted to those areas alone.

We recognise that research may cross into more than one category. Therefore, applicants may nominate an additional category on the Expression of Interest Smart Survey form. In this case, the judging panel consisting of representatives from the sponsors will select the most appropriate category for your entry.

How to apply

Entries should be submitted electronically by **16:00, 26 April 2018** using the Expression of Interest Smart Survey form on the Connected Nation Pioneers call

page on the EPSRC website. Please read this document carefully before submitting your entry.

This competition will be assessed in three stages:

Stage 1 Expression of Interest (EoI)

The research described in your expression of interest should be a majority (> 50%) within EPSRC remit. Remit will be checked internally by EPSRC. If the decision is that the research within your expression of interest is not sufficiently within EPSRC remit, it will not be considered eligible for the competition and will not proceed further.

If your expression of interest falls sufficiently within EPSRC remit, it will then be assessed by representatives from the sponsors against the assessment criteria. We will be looking for individuals who can clearly communicate their research, demonstrate why it is exciting, how it can be exploited and how it applies to the category topic selected for your entry. The categories are described below:

- **Safe and Secure Cyber Society**

Developing secure and safe systems which are resilient to cyber-attack is critical to ensuring we have a future digital economy which can be trusted. Pioneering research which places reliability and safety at the heart of its design is needed to ensure future cybersecurity and that security of information and digital devices are realised. Does your research have the potential to significantly enhance the safety and security of the underpinning technology or promote a culture of safe and secure thinking?

- **Intelligent Informatics**

The future digital society will require vast numbers of connected devices to communicate with each other and transform our interactions with technology. To achieve this, we need technologies which can adapt, learn from and manage data autonomously. This requires pioneering research in hardware and/or software systems as well as novel approaches to algorithms, mathematical modelling and statistics for system design. Can your research make a difference to the delivery of future intelligent technologies?

- **Making Digital Technology Work for People**

The impact of novel mathematics, algorithms and hardware in combination with emerging technologies continue to reform many aspects of today's society. However, there remain multiple societal challenges the addressing of which requires the development of relevant technology, which places people at the heart of the digital revolution. Whether through enabling the general population to engage in our increasingly digital world, developing multimodal enabling technologies which can be used by people who are not experts in the digital field or through the design of intelligent tools that can increase overall productivity – Will your research enable the general public to engage more fully with our increasingly complex digital world in new and innovative ways?

- **Creative Computing for the Digital Economy**

Can computing enhance human creativity? The creative industries are a key contributor to the UK economy and are dependent upon innovation and the use

of intelligent tools, platforms and technologies. Research into immersive experiences, vision, graphics and audio, artificial intelligence and human-computer interaction amongst other areas all contribute to the successful formation of an inclusive, innovative digital society. Does your research have transformative exploitation potential within the UK digital and creative economy?

Stage 2 Multimedia Presentation

Successful applicants from Stage 1 will be invited to submit a multimedia presentation showcasing their research in an innovative, eye-catching and creative way.

As with Stage 1, the presentation should communicate the applicant's research, as well as demonstrate clear ideas on the possible exploitation potential of their research. The multimedia presentation should take the format of a 3 minute film and will be judged by a panel of the competition sponsors against the assessment criteria. We expect to shortlist around 4 applicants for each prize category to go through to Stage 3.

Successful applicants will be sent further details about the submission process for the multimedia presentations.

Stage 3 Exhibition Showcase and Awards Ceremony Dinner

Finalists will receive free media and presentation training and will be invited to produce a more in-depth presentation of their research at a closed Exhibition Showcase to be judged by a panel of the competition sponsors against the assessment criteria.

Following the closed Exhibition Showcase, all finalists will be invited to present their work at a VIP Awards Ceremony Dinner at the Museum of Science and Industry in Manchester.

The Awards Ceremony Dinner will be attended by finalists, supervisors and guests as well as industry and government representatives. This is a fantastic opportunity to showcase your research and make contacts in academia and industry. The winner of each category will be announced at the Awards Ceremony Dinner and will be awarded prize money of £2,000 and an NVIDIA graphics card.

Bonus Stage: Elevator Pitch

The winners of each category will be invited to present their research in a 3 minute elevator pitch at the Awards Ceremony Dinner to a panel of competition sponsors. The pitches will be judged against the assessment criteria. The panel will then select the overall winner of the competition, who will receive an additional bonus prize of £1,000.

Assessment

Assessment process and criteria

Applicants will be assessed on providing evidence to address the following selection criteria:

- **Remit (Stage 1 only)** – The research described within your expression of interest should be a majority (> 50%) within EPSRC remit. This will be assessed by an internal EPSRC sift panel. EPSRC remit covers engineering and the physical sciences. We fund research in ICT, mathematical sciences, engineering, chemistry, materials and physics.
- **Fit to Scheme (all Stages)** – Entries should contribute to the Connected Nation Ambition by addressing one primary prize category. Where appropriate, you may also identify how your entry contributes one other category. Entries should clearly communicate how their research fits the prize category applied against.
- **Research is Pioneering (all Stages)** - The entry should demonstrate how the applicant’s research is pioneering and exciting. Where appropriate, you may clarify why your research is novel for your particular research area, how it addresses key societal and economic challenges, how it could establish or maintain a unique world leading research activity, or complement or disrupt other research in this area.
- **Exploitation Potential (all Stages)** - Evidence of exploitation potential (clearly relating to the prize category applied against) should be communicated. Successful entries will have a clear indication of how their research will be of potential benefit to industry, either in the UK or further afield.
- **Personal Contribution (all Stages)** - The entry should clearly establish the applicant’s own, personal contribution to the research presented.

In the event of an unforeseen change of circumstances following the publication of this call, EPSRC reserves the right to adapt the peer review process in order to handle entries appropriately.

Moving forward

Entries submitted to this call will **not** count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: <https://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/rua/>.

Key dates

Activity	Date*
Deadline for Expressions of Interest	26 April 2018

Activity	Date*
Decisions Announced	Week beginning 04 June 2018
Deadline for Multimedia Presentation	27 July 2018
Decisions Announced	Week beginning 13 August 2018
Finalists' Media and Presentation Training	Week beginning 10 September 2018
Closed Exhibition Showcase (Location TBC)	Week beginning 17 October 2018
Exhibition and Awards Ceremony Dinner (Museum of Science and Industry, Manchester)	20 November 2018

*EPSRC aims to adhere to the key dates as published, however there may be exceptions where dates may have to change due to panel member availability. This document will be updated accordingly for any major changes.

Contacts

Please send queries to PioneersCompetition@epsrc.ac.uk.

Change log

Name	Date	Version	Change
Nelly Wung	20/02/18	1	N/A