

Call for Participants: North West Partnership for Security and Trust Sandpit on Digital Sustainability

Closing Date: 28th April 2023

Summary

The North West Partnership for Security and Trust (NWPST) is pleased to invite researchers from all subjects at the universities of Lancaster, Manchester, Manchester Metropolitan and Salford to attend a sandpit on **Digital Sustainability**. Up to £120K of funding will be made available to fund interdisciplinary projects arising from this sandpit.

A sandpit is a highly interactive brainstorming and networking session that involves participants from different disciplines and backgrounds exploring and developing innovative approaches to a challenge. It is our aim that all participants, including those who do not receive NWPST funds at the end of the Sandpit, will have had a chance to deepen their knowledge of the area, widen their perspectives, make new contacts and come up with new ideas that will stimulate their research and scholarship.

Background

The NWPST is a partnership (launched in October 2021) between GCHQ, the UK's Government Communications Headquarters, and four universities based in the north-west of England: Lancaster University, the University of Manchester, Manchester Metropolitan University and the University of Salford. The unique partnership is a vehicle for collaboration between disciplines, institutions, and sectors, focused on the most difficult technology and security problems.

The NWPST fosters collaboration across research, innovation, skills development, and public engagement, to produce new knowledge to benefit national prosperity and societal understanding of issues relevant to national security. Greater Manchester, and the broader North West corridor, is one of the most diverse areas of the UK, and home to some of the country's most diverse Universities. The NWPST will benefit from engaging our varied communities to bring together talented people from different backgrounds to help solve the most difficult national security challenges.

The purposes and guiding principles of the NWPST were developed jointly through discussions between GCHQ Manchester and the four Universities.

The vision of the NWPST is:

1. To facilitate high-quality and impactful research in and across a wide range of disciplines relevant to UK national security challenges.

2. To build relationships with stakeholders across the North West and throughout the region, including government, industry, and civil society, to identify opportunities to develop new products and services, and enhance the productivity and security of existing provision.
3. To develop and deliver accessible and inclusive skills and apprenticeship provision, to support access to opportunities within the digital and data security sectors for citizens in the North West.
4. To engage with communities, stakeholders and the wider public to inform, explain and educate on issues of trust and security.

More information about the NWPST can be found in the Welcome Pack distributed with this call and which applicants should read before applying to participate in the sandpit.

Call Details

The Research Challenge

The theme of the Sandpit is “**Digital Sustainability**”. The UK strategy to achieve net zero by 2050 includes a range of proposals from developing green technologies to decarbonising heat and buildings. The paperless office, online meetings, optimising energy consumption and scheduling logistics are all examples where digitisation can help reduce our carbon footprint. Equally, we know that the cloud and large deep learning models such as ChatGPT consume huge amounts of energy and can have a negative impact on our carbon footprint. The impact of initiatives and policies to reduce energy consumption is also something that needs to be considered to ensure the problems faced by deprived regions are not exacerbated.

In our sandpit we will co-create innovative interdisciplinary projects to explore the impact of digitisation, and how it can best be used to achieve net zero goals.

Every academic discipline is or could be relevant to developing innovative ideas to explore this topic and we welcome applications from researchers across STEM, Business, Arts and Humanities, and Social and Behavioural Sciences.

Some of the questions we might consider include:

- How should we define, conceptualise, identify and assess the impact of digitisation on the environment?
- What innovative application would make a major impact on sustainability and how could you develop and demonstrate its potential impact?
- What impact is the cloud having on our sustainability and how can we mitigate against it?
- How can we articulate, evaluate and analyse the effects of policies and initiatives aimed at achieving Net Zero on communities, organisations and nations
- How can organisations and universities best contribute to achieving Net Zero targets?

- Can digital sustainability and security/cybersecurity coexist?
- How do we achieve digital sustainability without compromising national security?
- How do we develop a national security strategy around Net Zero?
- How can we best use AI for accelerating our transition to Net Zero?

Sandpit outputs

Up to 120K of NWPST funding will be made available to fund interdisciplinary projects arising from this sandpit.

Successful projects will explore Digital Sustainability from novel, interdisciplinary perspectives. Funding might cover the costs of conducting scoping studies, research engagement with organisations and/or communities, feasibility studies, and demonstrators. The aim is to explore 'proof of concept' ideas that could be developed into further, more ambitious funding proposals (e.g., to future NWPST calls, UKRI, Innovate UK, or other funds).

The timescale for each project will be no longer than four months, and each project funded is expected to be between £12,500 And £40,000 which will be funded by GCHQ at 100% full Economic Cost (fEC).

Expected commitment from participants

The sandpit itself will be run face-to-face. The following events will be associated with the Sandpit:

- **Friday 14th April, 14:00-15:00:** Online Introduction and Q&A session to enable potential applicants to find out more about the proposed Sandpit. Please email NWPST@manchester.ac.uk by 12th April if you are interested in attending this.
- **Wednesday 14th June, 10:00-17:00:** Exploring the Challenge Area (in-person). Optional dinner in the evening for participants.
- **Thursday 15th June, 09:30-16:00:** Generation of Initial Ideas. Research teams start to form (in-person).
- **Friday 22nd June 10:00-13:00:** Presentation to the Funding Panel (virtual, teams are allocated 30 minute– at least one group member for each project proposal must attend)

Participants must attend the 14th and 15th June sessions in person. Suggested reading and videos may be provided before and during the workshop and participants are encouraged to explore relevant research and grey literature.

In total, we estimate participants will need to commit between 45 and 55 hours before, during and after the sandpit.

An application to attend will be taken to mean you are available for these dates and able to engage fully.

The short application form is distributed with this call and can be obtained by email from NWPST@manchester.ac.uk

Further Details

How will the sandpit work?

Our approach to the sandpit is similar to the UKRI sandpit approach. A sandpit is highly interactive and involves participants from different disciplines and backgrounds exploring and developing innovative approaches to a challenge.

The sandpit process can be broken down into several stages:

- Defining the scope of the challenge
- Evolving common languages and terminologies amongst people from a diverse range of backgrounds and disciplines
- Sharing understandings of the challenges, and the expertise brought by the participants to the sandpit.
- Break-out sessions focused on the challenges, using creative thinking techniques
- Capturing the outputs in the form of highly innovative research projects

At the end of the sandpit, project proposals will be presented to a funding panel which will include members drawn from our Strategic Board, Implementation Group, Project Partners, and other stakeholders. There will be representatives on this panel from all four universities and GCHQ. The Panel will recommend proposals for funding and those involved will be given time to prepare a brief written proposal covering their intended activities, with costings. The deadline for submission of written proposals generated at the sandpit will be 15th July 2023. Further guidance on this part of the process will be available at the sandpit event. **Given the short timescales, applicants should inform their Research Support Offices about their proposed participation in the Sandpit before the event so that costings and approvals can be generated in a timely fashion.**

After satisfactorily completing normal contract and due diligence procedures with the NWPST Management Team, projects can start. Successful project teams may also be invited to present their findings at a NWPST Showcase event.

Who should attend?

We encourage applications from academic researchers from all disciplines, including engineering, physical sciences, life sciences, the social sciences, and the arts and humanities. Participants are welcomed at any stage of their research career if they meet UKRI eligibility requirements to receive grant funding and are employed by the University of Manchester, Manchester Metropolitan University, University of Salford or Lancaster University. If you have any questions about your eligibility, please get in touch at NWPST@manchester.ac.uk **Please note that attendance at the Sandpit does not guarantee funding.** Teams with projects that are not funded from NWPST funds may nevertheless decide to develop their proposals into bids to other funding calls.

Access and inclusion

We recognise that some potential participants may face barriers to participation, including shielding and health needs, additional childcare costs, or the need for BSL interpreters. We are committed to doing what we can to help participants overcome such barriers. Please contact NWPST@manchester.ac.uk to arrange a discussion (in confidence) if you want to explore what mitigation and support could be available to you.

How to apply

Applications are invited from academics at the University of Manchester, Manchester Metropolitan University, University of Salford and Lancaster University, from any discipline and at any career stage.

Applicants must be eligible to receive UKRI funding, please see the UKRI Eligibility Guide. All applicants should complete the short application form and submit to NWPST@manchester.ac.uk by **28th April 2023**

Assessment Criteria

Proposals will be reviewed against the following selection criteria:

- The ability to develop novel and adventurous research ideas
- The potential to contribute to research at the interface between disciplines
- The ability to work in a team
- The ability to engage productively with people from a range of backgrounds within and outside your sector.

Please note:

- We do not assess your academic publication or research track record as part of the process. We are more interested in your ability to engage creatively and constructively in a multidisciplinary environment to generate novel ideas, and the way in which you demonstrate an appreciation of the challenges of achieving Digital Sustainability.
- You should approach the sandpit without a specific research project in mind. Novel ideas are co-created by sandpit participants from scratch.
- We will select participants based on the information in the application form and will endeavour to achieve a diverse spread of participants from across the universities, disciplines, experience and backgrounds.

Applications will be assessed by a panel drawn from the NWPST Implementation Group. It will include a representative from GCHQ.

Please note that the information you provide in sections 1, 2, 3 and 7 of your application form may be shared with other participants prior to the sandpit.

Key dates

Date	Item
30 March	Applications Open
14 April	Online Introduction to the Sandpit and Q&A
21 April	Deadline for queries
28 April	Applications close
12 May	Applicants notified of decision
14-15th June	Sandpit Session
22 June	Presentation to Funding Panel
30 June	Funding Panel give in-principle decision
15 July	Deadline for written proposals
August	NWPST team will work with the PI's research support offices to complete contractual work asap. Projects can start as soon as contracts are in place.
31 st October	Latest date by which projects should start

Please email NWPST@manchester.ac.uk by 12 April if you are interested in attending the April Q&A session.

Further information

We will be issuing an FAQ in due course. If you wish to be alerted when the FAQ is issued or if you have any further questions regarding this call, please contact NWPST@manchester.ac.uk (NWPST Project Manager).