# Call for proposals 2022: Turing – DSO Labs Singapore Collaboration

# Call guidance document

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# Background

The Alan Turing Institute and DSO National Laboratories in Singapore Partnership are seeking to fund several projects to develop novel methods in AI and Data Science methods applicable to the three themes of Misinformation and Disinformation, Humanitarian Aid and Disaster Relief, and Counter-Terrorism.

The partnership between DSO National Laboratories, Singapore's largest national defence research and development organisation and the Alan Turing Institute is within Defence and Security Programme. Together, the Turing and DSO will explore new research methods designed to help understand complex datasets, covering different modalities such as image, text, and audio. Researchers will work to develop novel methods to help with the analysis of these fascinating and complex data sets.

The work falls under three themes:

**Misinformation and Disinformation**
New techniques in analysing social media content will enable the identification of harmful online material such as malign influence, extremist rhetoric, and the encouragement of serious violence, whether it is spread as text, image, or video. This will help to curb the speed at which such material can be shared and ensure that citizens continue to benefit from safe and trusted online spaces.

**Humanitarian Aid and Disaster Relief**
In a period of unprecedented global disasters fuelled by a changing climate, the ability to effectively provide responses to these disasters becomes more important than ever. A growing ability to collect data about such disasters, driven by both more prolific sensors and autonomous vehicles, provide a significant opportunity to first responders in tackling these disasters. AI techniques can help in areas such as analysing imagery, locating survivors, and providing important cultural, contextual, and linguistic support to first responders, especially in typically low-resource languages. Such techniques are of much importance in multilateral humanitarian relief efforts.

**Counter Terrorism**
Data analysis plays a large and substantial part in countering extremism. Analysts have to sift through large amounts of data to find threats, looking for the needle in the haystack that could result in a foiled extremist plot. Novel AI techniques can help analysts undertake this in a more efficient and expedient way.

# Call for proposals

This current call is now seeking proposals for projects to contribute to the foundational research on the themes.

# Eligibility to apply

We invite researchers from any UK-based universities and research institutes to submit an application (Please note that non-Turing university partners researchers are eligible to apply too)

The lead applicant must be based in a UK university or research institute. The co-investigators do not have to be UK-based or based in a university.

All people named on the proposal must have permission from their organisation to apply i.e. ensure your organisation agrees to the Terms and Conditions and that you submit a letter from your University stating support for your application.

## Funding available

The project length cannot exceed 24 months and must finish by August 2024. The typical funding for projects on this programme is around 250K for an 18-month project. Shorter projects are welcome, but each proposal will be assessed on his own merits, the assessment criteria (given below) and in relation to the whole suite of projects across themes.

Also, if there are one or more similar proposals, there may be a suggestion from the assessors to collaborate to develop a joint proposal.

All projects must start no later than 01 Feb 2023 and must end before the end of August 2024.

The funding is 100 % FEC and includes salaries (including on-cost), Overhead costs (including indirects and estates) and other direct costs as justified for the work in the proposal.

## Eligible costs

- Salary (including on-costs) of personnel working directly on the project – this could include, for example, PIs, postdoctoral research associates, research assistants, data managers, data scientists or software engineers.
- Overheads (including indirects and estates)
- Travel and subsistence for project researchers (e.g., attending conferences, travelling to/from the Turing/other collaborators)
- Conference or event attendance fees (where conference/event is directly applicable to the research project)
- Cloud computing or other high-performance computing costs.
- Other costs which are specifically justified for the project e.g., books, meeting room or catering costs, specific laptops (up to £2000 for laptops/equipment)
- Open access publication fees.

Please note, that the budget requested may not be funded to the maximum requested amount. You may be asked to review and update costs based on reviewer feedback

## Research priorities for this call

Submissions are expected to make contributions to the foundational research in AI and methodological areas of priority while fitting within one of the three themes. The methodological priorities include (but are not necessarily limited to):

- Artificial Intelligent (AI) technologies such as self-supervised learning, meta-learning, data augmentation, continual learning, contextual reasoning, or active learning to overcome the lack of labelled data.
- Deep Learning and research into the multi-modal representation of videos.
- Deep Learning and Computational Linguistic for NLP

- Machine reasoning (symbolic AI), graph neural network, inferencing
- Research into NLP technologies for few-shot topic filtering, opinion summarization, dialogue analysis, and multi-lingual learning.
- Explainable AI on disentangling causal from correlation in the data for the outputs of machine learning to be explainable.
- develop measures and metrics for mis/dis-information campaigns and hate speech
- Probabilistic programming
- Computational game theory

# How to apply

Applications must be submitted via the online portal at:

https://ati.flexigrant.com/startapplication.aspx?id=10464

 If you have not already done so you must first register on the system.

If you have any questions regarding the application form or using the online system, please contact the Research Project Manager: Amber Raza- araza@turing.ac.uk.

Applications must be submitted by **10 October 2022**

**The application form will require:**

- 2-page CV of the lead applicant/PI

- A 2-page document that includes the outline of the proposed project. *You should consider including the following:*
   *-Data readiness: Does the research team have, or have a plan for, access to any datasets and/or facilities essential to the quick commencement and ultimate success of the project? -does the team have an alternative data source, open data set, or synthetic data set, which could be used for the research if the originally planned data sources are not accessible?*
   *- Project Outputs and Deliverables*
   *- Risks to Project Delivery and Mitigations*
   *- Potential impact of the project*

- Relevance to a theme and the methods' priorities

- Outline of costs

- Maximum one-page letter of support from the head of department or equivalent at the university where PI is based.


Please use the provided Submission Approval Letter template example (which will be available within the application portal) and submit one letter per university if multiparty collaborations.

If you are employed by one of the Institute's 13 university partners, please contact your University Liaison Manager list available here to make them aware of your application. They can provide support, answer questions and involve you as part of the Turing community at your university from now on.

If you are employed at a university that received a Turing Network Development Award, please contact your Award lead – list available here (scroll to the bottom of the page) – to make them

aware of your application.

# Assessment process

Following a basic eligibility check by the Research Project Manager, there will be three stages to the review process:

All eligible applications undergo individual review and scoring by review panel members. Submissions will be assessed for their relevance to the overall project themes and contributions to the research area as well as factors such as value for money and novelty and innovation of approach, methodology, tools or technique

A workshop will be held in the first week of October at the Turing. This is an opportunity to get to know more about the DSO project, meet key members of the leadership team and seek informal feedback. This will enable you to further develop your application before submitting it by the due date.

The review panel will assess the proposals and reviews. This will be co-chaired by a Turing lead and a lead from DSO Labs. The outcomes from this stage will be recommended to the Joint Steering Board.

The Joint Steering Board will review the recommendation from the panel and make final decisions.

Following this process, the final outcomes and funding decisions will be announced to the applicants.

# Assessment criteria

**Scientific Novelty & Timeliness**

Describe which element(s) of your project are novel, how it includes a new method(s) or new application(s) that lead to new knowledge discovery and how it contributes to scientific progress.

Describe how your project fits within the priorities of the Turing-DSO Labs Collaboration

**Impact**

Describe what are the academic, societal, economic, or environmental impacts of your projects

**Feasibility**

Describe how easily (or conveniently) your proposed idea can be implemented within the time frame.

Justify value for money

Clearly define and justify the resources requested to carry out the proposal. Describe how they are appropriate given the scope of the project.

# Terms and conditions

The university of successful lead applicants will be required to sign a funding agreement recording the terms and conditions of the award before the project can start. Acceptance of these terms and conditions is a precondition to receiving the award. Please note the conditions of the funding are set and non-negotiable. A copy of the flow-down terms is available online through the application form, also for reference in the appendix below.

As part of the application, applicants are requested to add a letter from their research office or equivalent to confirm costings have been approved via the relevant internal channels and the terms and conditions reviewed and can be accepted.

# Key dates

- **10 October 2022:** The deadline for submissions is 10 October 2022: 13:00 BST

- **Week of 3 October 2022:** There will be a workshop held at the Turing in the week of 3 October. Details to be announced soon. This is an opportunity to meet the key programme leads from DSO and the Turing and seek informal feedback.

- **End of October 2022**: Final decisions will be made by the review panel before the end of October and forwarded for consideration to the JSB in November 2022: Contracts will be issued after approval at the Joint Steering Board at end of October/November 2022 and must be signed by 30 January 2022

- **End of January 2023:** Contracts must be agreed

- **February 2023:** Projects will be able to commence as soon as the contract is in place and must start at the latest by 01 February 2022

- **August 2024:** Funding must be spent (and therefore projects end by end of August 2024)

# Before starting your application

Please ensure you have read the following:
- Please read the **conditions** of the fund in Appendix 1 below
- Please ensure you have read the privacy notice  https://www.turing.ac.uk/privacy-policy

# Contact points

If any candidates want to request reasonable adjustments, please contact the team via araza@turing.ac.uk (Amber Raza: Research Project Manager) or on +44 20 3862 3366

If you have any other queries about the call process, please contact the team via araza@turing.ac.uk (Amber Raza: Research Project Manager for the DSO project)

If you have informal queries on the scientific research priorities of the call and the DSO

project please contact the Turing DSO scientific lead via [abasiri@turing.ac.uk](mailto:abasiri@turing.ac.uk) (Ana Basiri)

Thank you and good luck with your application!

# Our Values

The Alan Turing Institute is committed to equality diversity and inclusion and to eliminating discrimination. All employees and secondees are expected to embrace, follow and promote our EDI Principles and Our Values.

# Appendix 1: DSO Flow down conditions

The conditions set out below are contained in the Turing and DSO Framework Grant Funding Agreement dated 25 September 2021 ("Head Grant Funding Agreement or Funder Agreement"). It is from the funding received under the Head Grant Funding Agreement that the Funds is being made to the Counterparty and all Funds made from the Head Grant Funding Agreement must agree to these conditions without concession.

The Institute reserves the right to amend and vary these conditions or applicable policies at any time and these will be notified to the Counterparty as soon as reasonably possible. These Funder Conditions shall apply with immediate effect and supersede any previous conditions unless otherwise expressly stated in writing.

1. Definitions

The terms used in this Funder Conditions shall have the meaning given to them hereunder:

1.1 Funder or Head Funder means DSO National Laboratories.

1.2 Funder Affiliate or Head Funder Affiliate means Defence Science and Technology Agency (DSTA).

1.3 Publication means the publication, or open sourcing, of an abstract, article or paper, or code in a journal or an electronic repository, or its presentation at a conference or seminar, or report on the activities of the parties in connection with the use of the Funds and delivery of the Project and "Publish" is to be construed accordingly.

2. Intellectual Property Right

2.1 The Counterparty hereby grants to the Institute an irrevocable, royalty-free, non-exclusive, fully-sub-licensable, worldwide right and licence to use, modify, adapt and reproduce the Foreground IPR including a right to grant a sub-licence to the Funder, the Funder Affiliate, the Singapore Ministry of Defence (MINDEF), and the Singapore Armed Forces (SAF), and where required under the Head Grant Funding Agreement for its or their non-commercial research and/or public purposes. This section shall survive expiration or termination of this Agreement.

2.2 The Counterparty hereby grants to the Institute, Funder and Funder Affiliate a royalty-free, non-transferable, non-exclusive, worldwide right and sub-licensable licence to use any information, data, reports, documents or other materials obtained, created or developed in the course of the Project for non-commercial purposes in order to publicise and report on the activities of the Institute, Funder and Funder Affiliate in connection with the award of the Funds and the carrying out of the Project.

3. Publication

3.1 The Publishing Party will submit to the other party, on a confidential basis, a copy of such proposed publication or presentation at least 45 days in advance of the submission of

such proposed publication. The non-publishing party may within 25 days of receipt of the proposed publication forward its written response citing that (a) there is intellectual property of the non-publishing party which needs intellectual property protection; and/or (b) there is Confidential Information or Background IPR of

the non-publishing party contained in the proposed publication that should be removed.

3.2 The Publishing Party shall not publish any Confidential Information of the non-publishing party unless the non-publishing party has given its written consent to that publication.

4. Confidential Information.

The provision of section 11 (Confidential Information) of Part 2 of this Agreement shall survive termination of this Agreement for a period of 8 years from the Effective Date notwithstanding early termination.

5. Anti-Bribery

5.1 Each party shall:

5.1.1 comply with all applicable local laws relating to anti-bribery and anti-corruption in connection with its conduct under this Agreement; and

5.1.2 promptly report to the other party any request or demand for any undue financial or other advantage of any kind received by it in connection with this Agreement.

5.2 The parties acknowledge and agree that any breach of this section 5 of Schedule 3 (however trivial) shall be deemed to be an irremediable material breach of this Agreement.

5.3 This section shall survive expiration or termination of this Agreement.

6. Export Control

6.1 The Counterparty shall comply with all export control laws and regulations applicable to its activities under this Agreement. This section shall survive expiration or termination of this Agreement.