

## Accenture Turing Strategic Partnership

### Accenture Turing Strategic Partnership: Expression of Interest (Data Sharing)

The Alan Turing Institute, as the UK's national institute for data science and artificial intelligence, plays an important part in driving forward advances in these technologies in order to change the world for the better.

The Institute is named in honour of Alan Turing, whose pioneering work in theoretical and applied mathematics, engineering and computing is considered to have laid the foundations for modern-day data science and artificial intelligence. The Institute's goals are to undertake world-class research, apply its research to real-world problems, driving economic impact and societal good, lead the training of a new generation of scientists, and shape the public conversation around data and algorithms.

After launching in 2015 with government funding from EPSRC and five founding universities, the Institute has grown an extensive network of university partners from across the UK and launched several major partnerships with industry, public and third sector. Today it is home to more than 500 researchers, a rapidly growing team of in-house research software engineers and data scientists and a business team.

### The Accenture Turing Strategic Partnership

The Finance and Economics programme at The Turing brings together leading experts in data science, machine learning, finance and the social sciences, from both academia and industry to tackle the most challenging questions by producing world-leading research with significant impact. We inform public policy and enable trusted, research-led thought leadership. The programme works closely with government and the industry to exploit the potential of new technologies in the financial sector and economic research, and to position the UK as the leader in these areas.

We have recently launched a five-year Strategic Partnership with Accenture to advanced data science and Artificial Intelligence (AI) research with a focus on delivering substantial business and societal value via:

- a) delivering value from AI and data;
- b) enabling safe and robust application of AI and;
- c) lowering barriers to AI adoption.

Our partnership has several interconnected workstreams. The most significant is Research Sponsorship which encompasses three areas of focus:

1. Data Sharing (incorporating Synthetic Data, PETs and FEDS)
2. Digital Twins (incorporating Agent Based Models and Multiagent Systems)
3. AI in a Changing World

Through this call we are seeking to fund projects that fall under the “Data Sharing” research theme.

## **The Data Sharing research theme**

Data and Privacy Enhancing Technologies (PETs) more broadly to support effective data sharing and collaborative learning over distributed data.

PETs provide methods to share data and acquire joint learning without the requirement of pooling data, or sharing data in raw format. As the need for information across distributed data has increased, so too has interest in PETs, and there has been a huge surge in fundamental research in the area. However, the application of PETs at scale requires further research, and this project aims to address that need. In particular, synthetic data generators (SGD), a tool for producing high fidelity data that gives the user control over privacy risks, is an emerging technology that can significantly accelerate the development of machine learning projects. Among other benefits, SDGs can enable users to share and link data, fix structural deficiencies in data, increase the size of data, and validate machine learning systems by generating adversarial scenarios.

Examples of possible research directions are:

- To develop principles and methods for selecting engineering appropriate solutions from a range of technologies available
- To explore the value of data and the incentive, rewards and risks in data sharing
- State of the art data generators for both structured and unstructured data sets, including networks and time-series data.
- Metrics for evaluating the utility, similarity, and privacy of synthetic data sets across multiple use cases.
- Methodologies for assessing the utility and privacy trade-offs.

## **Assessment and eligibility criteria**

All applications will be assessed by a multi-disciplinary panel. The panel are seeking projects that can demonstrate:

- Novelty, timeliness and relevance to the Accenture-Turing Strategic Partnership.
- Ambition and a clear vision for addressing a specific challenge.
- The suitability of the proposed methodology and the appropriateness of the approach to achieving impact.
- Opportunities for engagement with the Turing network and Accenture stakeholders.

Applicants must be employed by a UK university, not limited to the Turing university partner network.

## **Funding available**

- We have £300,000 to award through this call.
- We are seeking to award up to £150,000 per project.

- In special circumstances there may be an opportunity to increase the funding awarded for an outstanding project.

We will notify applicants at the shortlisting stage if additional funding will be made available.

## **Further detail regarding eligible costs**

- The Turing will pay overheads, but it is acceptable if universities wish to waive overheads and use the funds for staff time or other costs.
- The Turing will pay full overheads/ 100% FEC.
- The Turing will cover general costings like travel, and equipment.
- Studentships will be covered, but please note that they will be contracted under the Turing's funding agreement template.

Please note that you do not need to provide approval of costing through your internal system at this stage, but it will be requested from shortlisted applicants.

## **Additional support available**

Additional resource and support may be made available to successful applicants.

This could include:

- A portion of the time of a Post-Doctoral Research Associate from the Accenture partnership funded Applied Machine learning team based at the Turing.
- Support from Turing's Research Engineering Group, a team of expert research software engineers and data scientists.
- In-kind support and engagement from Accenture.

Successful applicants will also benefit from being part of the Turing's expansive network of university partners and will be encouraged to engage and collaborate with researchers working within the broader Accenture project ecosystem and Turing-wide.

We will provide applicants with more detail at the shortlisting stage.

## **Duration**

- Funding will be awarded for projects of up to three years in duration.
- Projects must start from Summer 2020 and be completed by Summer 2024.

## **Terms and conditions**

- Turing is committed to sharing algorithms and methods publicly.
- Projects will be expected to report on a quarterly basis.
- Projects will be expected to engage with the Turing and with Accenture.
- Additional terms and conditions may apply.

Further detail shall be confirmed at the shortlisting stage.

## Summary of stages

March	April	May	June	July - August
Expression of Interest (Eoi) live.	Deadline for Eoi submission.	Shortlisting by panel and applicants notified.  Deadline for detailed project proposal from shortlisted applicants.	Presentation of complete proposal to panel. (Late May/ early June)  Final decision.  Contracting and project set-up begins.	Project to begin

## How to apply

Applications should be completed and submitted by Thursday 22 April 17:00 BST to [the Turing's FlexiGrant portal](#). If you have not already done so, all applicants must first register on the system and provide basic details to create a profile.

## Questions

If you have any questions, please email Cat Morton, Finance and Economics Programme Manager on [cmorton@turing.ac.uk](mailto:cmorton@turing.ac.uk)