Accenture Turing Strategic Partnership

Accenture Turing Strategic Partnership: Expression of Interest (Digital Twins)

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 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 the Engineering and Physical Sciences Research Council (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 industry to exploit the potential of new technologies in the financial sector and economic research, and to position the UK as a global leader in these areas.

In 2020 we launched a five-year Strategic Partnership with Accenture. This will build on an existing three-year alliance to create a world-leading strategic partnership in advanced data science, data analytics 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, Privacy Enhancing Technologies (PETS), and Federated Learning Systems (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 "Digital Twins" research theme.

The Digital Twins research theme

The capability of translating multiple data streams into business decisions is the core challenge in transitioning to a data-driven economy. Digital twins provide a framework that (i) allows to quantify and understand the data at different scales and in real-time (ii) forecast likely future scenarios based on up-to-date observations, and (iii) in vitro exploration of the impact of different interventions at a quantitative level, to allow rapid development of responses to new challenges as they arise. On a methodological level, digital twins seamlessly integrate established mathematical modelling with modern machine learning techniques such as (multiagent) reinforcement learning.

By working together with Accenture, we aim to explore how state of the art DTs methodologies can be augmented currently used techniques in the industry. We have a particular interest in applications of DTs in supply-chain analysis and the insurance industry but are open to other applications domains.

Assessment and eligibility criteria

Researchers (Turing Fellows, Turing Research Fellows, Doctoral Student Supervisors, and others) and other academics from our partner universities may apply to this research call. Applications from academics employed by other UK-based universities will also be considered.

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 commercial challenge.
- Demonstrable applicability to business decision making.
- 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.

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 final stage if additional funding will be made available.

Eligible costs

- The funding can be used for direct and indirect costs.
- The Turing will pay full overheads/ 100% Full economic cost (FEC).
- Direct costs are on FTE basis of personnel working directly on the project – this could include, for example, PIs, postdocs, data scientists or software engineers.
- Please be aware that PI time can be bought out at up to a maximum of 10%
- Other costs could include:
    - Travel and subsistence for project researchers when away from host university (e.g., attending conferences, travelling to/from the Turing)
    - Conference fees where the conference is directly application to the research project
- Studentships will be covered, but please note that they will be contracted under the Turing's funding agreement template.

Please consult with your institution for guidance as to costs when you prepare your application. 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

Duration

- Funding will be awarded for projects of up to three years in duration.
- Projects must start from Q1 2022 and be completed by Q1 2025.

Terms and conditions

- This funding is flowed down from our partnership with Accenture.
- IP to be made available under Creative Commons or open-source license which permits commercial use.
- 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 on a regular basis.
- Additional terms and conditions may apply.

Application process

Any queries regarding process, post-award requirements, costing or general eligibility should be discussed with the Research Project Manager Tony Zemaitis (FinanceandEconomicsProgramme@turing.ac.uk)

Successful proposals will be funded through an award from the Turing.

The process summary is as follows:

- Online form completed by applicants and submitted online via Flexigrant
- First stage – initial review and eligibility check
- Second stage – applicants that pass stage 1 sent through to review by panel
- Shortlisted projects asked to prepare detailed project proposals
- Presentation to shortlisting panel and Accenture attendees
- Panel reviews applicants based on fit and assessment criteria
- Successful applicants notified by Research Project Manager

Summary of stages

August	September	October	November	Jan - Mar
Expression of Interest (EoI) live.	Deadline for EoI submission.	Shortlisting by panel and applicants notified. Deadline for detailed project proposal and letters of support from shortlisted applicants.	Presentation to shortlisting panel and Accenture attendees. Final decision. Contracting and project set-up begins.	Project to begin

How to apply
Applications should be completed and submitted by Friday 24th September midday 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 Tony Zemaitis, Finance and Economics Research Project Manager on FinanceandEconomicsProgramme@turing.ac.uk