

Winners announced in first phase of UK-U.S. privacy-enhancing technologies prize challenges

- 12 teams from across the U.S. and the UK were announced today as winners of Phase 1 of the PETs prize challenges
- Applications now open to join red teams, which will rigorously test the strength of privacy protections of the most promising solutions in the final phase of the challenges

Today, the UK and the U.S. governments have announced the winners of the first phase of the UK-U.S. privacy-enhancing technologies (PETs) prize challenges. Innovators on both sides of the Atlantic are participating across two challenge tracks – using PETs to improve detection of financial crime and forecasting an individual’s risk of infection during a pandemic – or designing a solution that would meet both scenarios.

The 12 prize-winning technical papers, selected from 76 entries, set out state-of-the-art approaches to privacy-preserving federated learning, winning a total of \$157,000 (£138,000) in prizes. They reflect the breadth and depth of technical talent in both nations and include teams from academic institutions, global technology companies, and privacy start-ups.

The second phase of the challenges, which began earlier this month, will see participating teams build the solutions envisioned in their technical papers. They will also have opportunities to engage with regulators and government agencies, to inform the development of solutions that uphold crucial regulatory principles. Innovators in the second phase will compete for prizes worth a combined \$915,000 (£803,000).

The UK and U.S. governments are also opening applications for red teams, who will participate in the third phase of the challenges. Red teams will rigorously test the privacy-preserving capacities of the top-scoring solutions from the second phase of the challenges to assess the final winners. Recruitment for red teams is open [here](#), with applications closing on 23 November. Top-scoring red teams will be awarded prizes from a combined pool of ~\$225,000 (£200,000).

The challenge problems being tackled by participants are based on artificially-generated, or synthetic, data sets that are representative of real world use cases, but contain no actual client information. Data being used for the financial crime track is based on synthetic banking data developed by global financial institutions BNY Mellon and Deutsche Bank and synthetic global transaction data created by SWIFT, the global provider of secure financial messaging services, using the MOSTLY AI synthetic data

platform. Innovators on the public health track are working with a synthetic dataset created by the University of Virginia's Biocomplexity Institute.

Winning solutions will be profiled at the second Summit for Democracy, to be convened by President Joe Biden in 2023.

Julia Lopez, Minister for Media, Data, and Digital Infrastructure at the UK Department for Digital, Culture, Media and Sport, said:

Privacy-enhancing technologies have the potential to unlock the power of data to tackle major societal challenges – from international money laundering to responding to global pandemics – in a way that respects citizens' rights. That's why I'm delighted by the strength of the response to the UK-US prize challenges, with world class researchers on both sides of the Atlantic leaping to the challenge of innovating in a way that upholds our shared values.

John Edwards, UK Information Commissioner, said:

We are proud to be supporting the UK-US PETs prize challenge to help accelerate the development and use of PETs. PETs can help organisations share and use people's data responsibly, lawfully and securely. That's why we are offering advice to the organisations involved, building on our new PETs guidance which is out for consultation.

"AI is driving rapid technology change that is based on ever increasing amounts of disparate data, making privacy enhancing technologies increasingly important," said Under Secretary of Commerce for Standards and Technology and NIST Director Laurie E. Locascio. "The U.S. UK PET prize challenge provides a global venue to build and showcase cutting-edge and scalable solutions that respect human rights and civil liberties. I am excited by the solutions proposed by these scholars and look forward to their impact on enhancing privacy and bolstering trustworthy AI."

"These first-of-their-kind international prize challenges are focusing innovators from the US and UK on overcoming the challenge of maturing PETs for practical use cases," National Science Foundation Director Sethuraman Panchanathan said. "The level of participation and caliber of participants in the U.S.-UK PETs prize challenges promise to accelerate the translation of PETs to practice. I'm excited to see the strong start to the prize challenges across the transatlantic research community and look forward to the results in the next phases."

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Notes to editors

In the UK, Prizes were awarded to the following organisations:

- Corvus Research Limited
- DeepMind and OpenMined*
- Diagonal Works
- GMV
- Faculty
- Featurespace Limited
- Privitar Limited
- University of Cambridge
- University of Liverpool

[In the United States, prizes were awarded to the following teams:](#)

- Team MusCAT: researchers from the Broad Institute, MIT, Harvard Business School, UT Austin, University of Toronto
- Team IBM Research
- Team Secret Computers: researchers from Inpher, Inc.

Across both countries, 76 teams entered the prize challenges. The total UK-U.S. prize pool across all three phases represents \$1.6 million (£1.3 million).

Planning for the challenges is being led by the U.K. Centre for Data Ethics and Innovation (CDEI) and Innovate UK, and the U.S. White House Office of Science and Technology Policy (OSTP), the U.S. National Institute of

Standards and Technology (NIST), and the U.S. National Science Foundation (NSF). The U.S. challenge is funded and administered jointly by the U.S. National Institute of Standards and Technology and the U.S. National Science Foundation.

[The prize challenges were launched in July 2022.](#) For more information, please visit the [PETs prize challenges website](#).

*DeepMind and OpenMined have chosen not to accept any prize funds for this challenge.