

Fact Sheet

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IMDA to Strengthen Singapore's Capabilities in Digital Trust Through New National Digital Trust Centre

Background

With ever-increasing connectivity, data use, and new innovative technologies, digital trust is becoming a necessity in a global economy. To be trusted, technology must be secure and used responsibly. Digital trust is the confidence users have in the ability of people, technology and processes to create a secured digital world.

Singapore's Minister for Communications and Information, Mrs Josephine Teo, announced today at AsiaTechX (ATx) Singapore 2022 that the Infocomm Media Development Authority (IMDA) has appointed Nanyang Technological University, Singapore (NTU) to establish the national Digital Trust Centre (DTC).

Funded by IMDA and the National Research Foundation (NRF) under the Research, Innovation and Enterprise 2025 (RIE 2025), this S\$50 million investment will lead Singapore's research and development efforts and grow local talent and businesses for trust technologies¹. The Centre is a national effort to focus on four key areas of trust technologies. To achieve this, DTC will embark on the following:

- Trust Tech Research – Enable Institutes of Higher Learning and Research Institutes to pursue research excellence in Trust Technologies and drive local and international collaborations.
- Trust Tech Innovations – Encourage academia and enterprises to co-develop and mature research ideas into market-ready solutions.
- New sandbox environment – Enable businesses to experiment with Trust Technologies to alleviate challenges with data sharing.
- Deepen local capabilities – Nurture 100 R&D talents in digital trust.

¹ Trust Technologies help augment systems across the digital trust principles of privacy, accountability, identity, integrity, fairness, safety, and compliance. For instance, technologies for the privacy-enabled exchange of data and to evaluate the trustworthiness of digital systems.

IMDA and CEIMIA signed a Memorandum of Understanding on 1 June 2022 for one of the world’s first cross-border collaboration on Privacy Enhancing Technology² (PET). As part of this project, IMDA, in conjunction with DTC, will develop PET solutions to address challenges in deriving insights from sensitive data. The experience will guide future technology translation, business adoption of PETs, and contribute towards developing international standards.

Professor Lam Khin Yong, Senior Vice President (Research) at NTU Singapore, said the establishment of the Digital Trust Centre will help to accelerate the growth of the digital economy, build trust among companies and provide a safe sand-box environment to test out new solutions.

“Over the last decade, NTU has built up deep expertise in the areas of computer science, privacy protection, Artificial Intelligence and Data Science, which puts us at the forefront of Trust Technologies. As part of the NTU 2025 Strategic Plan, the University has been pushing to commercialise its research into innovations that will have economic and social impact. These digital trust technologies are crucial as firms digitalise and upgrade. As one of world’s top universities, NTU is also the perfect place to train a skilled talent pool in this sector for the nation,” Prof Lam said.

NTU Professor Lam Kwok Yan, Associate Vice President (Strategy & Partnerships), who will lead the DTC as its Executive Director, said: “Emerging technologies like Privacy-enhancing technologies (PET) can help future-ready industries to unlock tremendous value from their data while addressing data privacy concerns, building trust amongst companies and consumers. For example, fintech companies can exchange their data in a confidential manner to address financial risks while still protecting the privacy of their customer data. The newly established Digital Trust Centre will work towards research excellence in frontier trust technologies, drive business experimentation, and develop R&D capabilities in this field.

Earning Digital Trust, Today and Tomorrow

Emerging technologies such as trust technologies, while nascent, will provide businesses the ability to improve its digital trust. DTC will help to focus on four key outcomes.

Areas of research in Trust Technologies	
Trusted Analysis	Trusted Accreditation

² Privacy-enhancing technologies (PETs) are technologies that embody fundamental data protection principles by minimizing personal data use, maximizing data security, and empowering individuals.

<p>Support the exchange and derivation of insights from sensitive datasets, while preserving the privacy of data.</p> <p>DTC will address the privacy concerns in deriving insights from sensitive data, specifically in the areas of Privacy-preserving data exchange and Multi-Party Computation³.</p>	<p>Develop technologies in testing and auditing to evaluate the trustworthiness of digital products and services.</p> <p>Testing the trustworthiness of AI, the development algorithms to test and evaluate the fairness of AI.</p>
<p>Trusted Identity</p> <p>Address trust in verifiability and authentication of digital identities and assets.</p> <p>Distributed ledger technology and cryptography, specifically in the areas of decentralised identity and biometric-assisted authentication.</p>	
<p>Trusted Compute</p> <p>Develop trusted compute capabilities across distributed architectures and heterogenous platforms</p> <p>Investigate solutions to address trusted computation limitations, such as verifiable computation and how trust can scale from single machine to distributed systems.</p>	
<p>Pre-Market</p>	<p>Post-Market</p>

About Infocomm Media Development Authority

The Infocomm Media Development Authority (IMDA) leads Singapore’s digital transformation by developing a vibrant digital economy and an inclusive digital society. As Architects of Singapore’s Digital Future, we foster growth in Infocomm Technology and Media sectors in concert with progressive regulations, harnessing frontier technologies, and developing local talent and digital infrastructure ecosystems to establish Singapore as a digital metropolis.

³ Privacy-preserving data exchange enables different parties to come together and extract insights from data without exposing the actual underlying datasets.



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