

**Speech by Senior Minister of State Dr Janil Puthucheary at the Opening of ATxEnterprise Industry Headliners Stage (Part of Asia Tech x Singapore 2022) on 1 Jun 2022**

**Strengthening the Digital Ecosystem, Growing our Digital Economy**

1. Thank you Juliana for the introduction. It is a real pleasure to be here today to kick off this ATxEnterprise event.
  - a. Especially a real pleasure to see so many friends and colleagues in person, from Singapore and all around the world.
  - b. I am happy that for many countries around the world, the borders have reopened to international travel.

**Change**

2. We now find ourselves opening up to a world that has changed quite dramatically.
  - a. It has become more volatile, uncertain, and unpredictable.
  - b. We find ourselves grappling with the complex challenges of slowing growth, rising inflation, supply chain disruptions, and fears of de-globalisation;
  - c. At the same time, we continue to deal with the global problems of climate change, rapidly changing demographics, and heightened geo-political tensions continue.
  - d. Many of these challenges were recurring themes discussed at the World Economic Forum in Davos last week. Here in Asia and Singapore, we feel the impact of these challenges acutely.
3. Nonetheless, a positive story from this region is that rapid digitalisation over the past few years has helped the digital economy to grow and improve the livelihoods of many.
4. Digitalisation and transformation through technology is a trend that was already present pre-pandemic, but has accelerated over the past couple of years.
  - a. In Southeast Asia alone, 70 million more people – or 10% of Southeast Asia’s population – became online consumers since the pandemic began.<sup>1</sup>

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<sup>1</sup> *Southeast Asia, The Home for Digital Transformation* report by Facebook & Bain.



- b. The Southeast Asian digital economy is also expected to more than double to 360 billion USD from end-2021 to 2025, with the ICT sector being one of the main growth drivers.<sup>2</sup>
5. Digitalisation will not solve all the world's problems, but if we are able to harness this tailwind that digitalisation and transformation through technology brings, we can transform our economies and our enterprises more quickly to:
  - a. Access new markets and create new ways of doing business;
  - b. Make ourselves more resilient and adaptable to the changing external environment; and
  - c. Be more adept at seizing growth and innovation opportunities as and when they emerge through the uncertain times that lie ahead.
6. We should not take the current momentum in digitalisation for granted.
  - a. Many governments and businesses were able to pivot quickly during the pandemic through technology because of the investments we had already made in the preceding years.
  - b. In Singapore:
    - i. The Government was able to quickly roll out contact tracing, telehealth, and chatbots to enhance online public service delivery;
    - ii. We were able to pivot to home-based learning for our children; and
    - iii. Our small and home-based businesses, and hawkers were able to transform their operations and do business online.
  - c. All these were possible because we had made investments early in digital infrastructure for very different reasons, but they proved their worth in a crisis. It was efforts in building up our internal capabilities within Government, through our Government Technology Agency.

### **Connectivity**

7. To keep up this momentum in digitalisation and to drive further innovation, it is important to enable digital connectivity and plan for future communications technologies.
8. We do this in three ways.

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<sup>2</sup> *e-Conomy SEA Report 2021* by Google, Temasek, Bain.

**9. First, by continuing to enable digital connectivity in Asia.**

- a. Enabling digital connectivity is not just the funding and building of physical digital infrastructure, such as subsea cables, data centres, broadband and mobile networks, or satellite connectivity.
- b. It is also important to think about the development and innovation of “softer” infrastructure – or what some of us might call digital utilities or digital public goods – which enable enterprises and consumers to access digital services in a secure and trusted manner.
  - i. These include applications for authenticating digital identity, document attestation, payments, and secure data sharing that facilitate digital trade.
  - ii. Within Singapore, the most recent example is the Singapore Trade Data Exchange (SGTraDex), which is a common data infrastructure for enterprises in the supply chain ecosystem, to share data in a secure and seamless way.
- c. Together with physical digital infrastructure, digital utilities will provide a strong foundation to support ecosystem-wide digital transformation, and continue this momentum that we developed.

**10. Second, by harnessing the full potential of digital connectivity to boost innovation and further transform the digital economy.**

- a. As the region rolls out 5G networks, we also need to recognise that 5G is not just an evolution of mobile technologies – at its peak potential, 5G could be instrumental for developing revolutionary applications.
  - i. Where the evolution from 1G to 4G brought significant benefits for consumers, 5G is a technology that brings transformative potential for businesses, industries and the wider economy.
  - ii. The advantages of 5G allow for new use cases employing IoT and Artificial Intelligence (AI), and this can translate into efficiency and productivity gains across many sectors *if* we are able to fully harness the new potential of 5G, not considering it merely as a step up in speed from the previous telecommunications technology.

**11. Third, by looking ahead and developing next-generation communications technologies beyond 5G.**

- a. As announced yesterday by Deputy Prime Minister Mr. Heng Swee Keat, quantum communications is one such area Singapore is focusing on.



- i. The Quantum Engineering Programme 2.0 has committed to funding three national platforms that will amplify Singapore's efforts in this domain.
- ii. I will also elaborate on Singapore's efforts in the global quantum ecosystem at the Quantum Summit later.
- b. Quantum technology is just one area of future communications which we are developing.
- c. The Infocomm Media Development Authority (IMDA) and the National Research Foundation are investing close to 50 million USD in our first national Future Communications Research and Development Programme.
  - i. The programme seeks to accelerate the next bound of communications and connectivity research such as in 6G.

### **Collaboration**

12. While we look to strengthen Singapore's digital ecosystem, the Government cannot build and grow the Digital Economy alone.
13. We need to partner the industry as well as international counterparts to strengthen the digital ecosystem.
14. We welcome all partners to make use of our:
  - a. 5G test beds;
  - b. Incentives such as the IMDA's 5G Innovation Grant Programme; and
  - c. Smart city platforms such as the Smart Urban Co-Innovation Lab
15. To develop more efficient industrial, construction or logistics processes, or 5G-enabled solutions in healthcare, education, sustainability, and transportation.
16. These use cases can be developed in Singapore, and subsequently scaled regionally and internationally.
  - a. One example is IMDA's partnership with IBM, Samsung, and M1 in Singapore's first 5G Industry 4.0 trial.
  - b. The trial developed a 5G-enabled augmented reality solution in the form of AI-powered "Smart Glasses" that assist factory operators in assembly and inspection, and improved training efficiency for new hires by 50%.
  - c. These "Smart Glasses" will be deployed across IBM's global manufacturing sites from the second half of this year.

17. At the Government-to-Government level, we will need to strengthen partnerships and build international consensus on rules, norms, and standards so that the global digital ecosystem remains inclusive, interoperable, and secure.
  - a. We have to resist the temptation to turn inwards, to put up barriers, or to have a bifurcation in our systems – whether in technology ecosystems, financial systems, or digital trade standards.
  
18. Singapore has continued to work closely with international stakeholders, and has since signed Digital Economy Agreements (DEAs) with four countries<sup>3</sup> to foster common standards for digital trade.
  - a. We have also substantially concluded a DEA with the Republic of Korea in December 2021.
  - b. We recognise the importance of formalising many of these arrangements, engaging governments and their businesses to develop these standards, put things down on paper, and as we have seen in the news recently, more and more countries have now decided that this is the correct path and want to join these efforts.
  
19. In addition, we recognise that global companies and SMEs seeking to internationalise may face challenges in complying with different data protection and AI regimes.
  - a. While these requirements are necessary to safeguard digital security and protect consumers. In the same way, Singapore is actively forming international partnerships to support interoperability and data innovation across borders.
  - b. And we welcome companies to join us in these efforts to strengthen the global digital ecosystem.
    - i. Singapore recently joined the Global Cross-Border Privacy Rules (CBPR) Forum as a founding member.
    - ii. The Global CBPR builds on the Asia-Pacific Economic Cooperation (APEC) CBPR system, and aims to enhance interoperability between different data protection frameworks so that certified organisations can transfer data seamlessly to more economies, including to non-APEC jurisdictions.

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<sup>3</sup> Singapore's DEAs (and partners) include the: Digital Economy Partnership Agreement (with Chile, New Zealand); Singapore-Australia Digital Economy Agreement; UK-Singapore Digital Economy Agreement.



- iii. In the more nascent AI space, Singapore is partnering with like-minded stakeholders through platforms like the Global Partnership on Artificial Intelligence (GPAI) to align on principles for responsible AI deployment, and set norms on good AI practices.
- C. At the ATxAI conference later today, Minister for Communications and Information, Mrs. Josephine Teo, will share more about how Singapore is contributing to global efforts for trustworthy AI, and building digital trust capabilities. Trust being one of the key anchors for public confidence in our measures to grow our digital ecosystem and our digital economy.

## **Conclusion**

20. Now, I look forward to hearing our distinguished panellists' views on how we can harness the transformative power of technology and digitalisation to collectively overcome the global challenges we face.
21. And I hope that in the course of our discussions and in the course of events like today, we can discover new partnerships and new collaborative opportunities, to drive innovation and spur further investment in a shared digital future, and continue to provide that type of momentum for technology transformation that has served us so well, and imagine how we might be anticipating the needs of the near future through that investment, innovation and type of collaboration.
22. I wish you a fruitful discussion and a productive time at the conference today. Thank you very much.