

TRANSCRIPT OF SPEECH BY MINISTER OF STATE MR TAN KIAT HOW AT THE MINISTRY OF COMMUNICATIONS AND INFORMATION COS DEBATE 2022

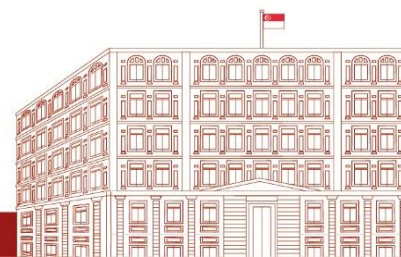
1. Mr Chairman, Ms Tin Pei Ling and Ms Jessica Tan spoke about the opportunities in our Digital Economy. Indeed, we saw the benefits of digitalisation, particularly over the last couple of years, where firms and the workforce had to deal with COVID-19. I am heartened that many firms are embracing digital.
2. IMDA's Digital Acceleration Index, an annual survey of more than 2,000 firms across 23 sectors, showed that digitalisation is picking up pace across our economy. More than 80,000 firms have benefitted from the SMEs Go Digital programme since 2017, including a quarter of them coming on board in 2021 alone. Three in four firms now adopt at least one digital solution.
3. As we emerge from COVID-19, we will sustain this momentum in two ways:
 - i) First, providing businesses, particularly Small and Medium Enterprises (SMEs), with the tools and support to transform digitally; and
 - ii) Second, nurturing a future-ready workforce with the qualifications and skills to get into good jobs in the tech sector, and progress well in their careers.

EQUIPPING BUSINESSES FOR THE DIGITAL ECONOMY

4. Let me elaborate on the first prong. Our firms want to adopt digital and transform. This is the consistent feedback when we engage industry associations and firms, as well as from various surveys that we conduct.
5. However, as Mr Christopher De Souza pointed out, SMEs face practical issues in raising their digital game. SMEs share with us their difficulty in building up their in-house IT team with the right experience and expertise, in helping them select solutions and vendors that meet their needs, while putting in place systems and processes to protect their clients and operations from cyber threats and data breaches. I empathise with these sentiments.
6. We must harness network effects to fully benefit from opportunities in the digital economy. SMEs, which comprise more than 9 in 10 of our enterprises, account for almost half of GDP, and hire 7 in 10 of our local workforce, are an important constituent in our national digital push.
7. Our approach is threefold:
 - i) First, enabling secure and seamless digital transactions across the economy;
 - ii) Second, supporting digital transformation of our industry sectors; and
 - iii) Third, equipping firms with resources and tools to facilitate digitalisation.

Digital utilities for the economy

8. First, on economy-wide digital enablers, or digital utilities. Just like water or electricity in the analogue world, we can envisage a foundational set of systems or standards to facilitate



seamless and secure transactions in the Digital Economy. E-invoicing and e-payment are two examples.

9. To Ms Jessica Tan's question, more than 50,000 businesses have adopted InvoiceNow since it was launched in 2019, and more than 90% of businesses have adopted PayNow. We will continue to put in place such digital utilities to support our businesses as they shift their operations and transactions online.

Transforming sectors

10. Second, we will support the transformation of our industry sectors, building on these digital utilities. We recognise that each sector faces unique challenges and operating contexts.

11. We have launched Industry Digital Plans (IDP) and these IDPs provide firms with a step-by-step guide on digital solutions and skills training curated for each stage of their growth, tailored to their sector. Since 2017, we have launched 20 IDPs to guide digitalisation across sectors as diverse as accountancy, logistics, and security.

12. We will expand the coverage of the IDPs, and the next IDP to be launched will be for the Legal industry. And we will continue to refresh these IDPs to incorporate new digital utilities, relevant technological advances, and best practices.

13. Let me next touch on how individual SMEs can benefit.

Supporting firms

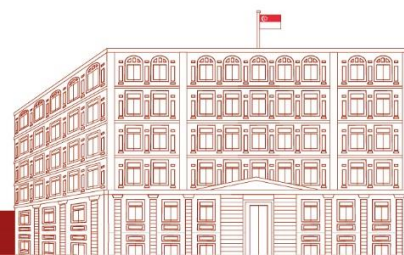
14. Last year, we announced two schemes – CTO-as-a-Service and the Digital Leaders' Programme – to empower businesses on their digitalisation journeys. This year, our enhancements will help SMEs raise their digital maturity, reach markets abroad, and retain trust in the digital marketplace.

15. On digital maturity, we will raise SMEs' digital maturity with advanced technological capabilities that are curated to meet their sectors' needs. Launched in 2020, the Advanced Digital Solutions (ADS) scheme helps SMEs access advanced technology and integrated digital solutions such as robotics and aggregated data analysis.

16. We will grow our list of 30 solutions, with an emphasis on AI-enabled and cloud-based solutions.

17. We will also expand our Grow Digital scheme. Through the Grow Digital programme, we have worked with Enterprise Singapore to curate a group of e-commerce platforms that can help our firms reach international markets.

18. Since launching in 2020, Grow Digital has helped more than 2,500 firms access markets in 10 countries, while building capabilities in digital marketing, business matching and door-to-door fulfilment. This year, Grow Digital will bring more firms to global markets through a broader group of e-commerce platforms.



19. Ms Hany Soh, Mr Xie Yao Quan and Mr Shawn Huang spoke about helping businesses protect themselves against cyber attacks and data breaches.

20. We will launch the Cyber Trustmark and Cyber Essentials mark, and the Data Protection Essentials Programme. Obtaining the trustmarks would give businesses and their customers the confidence that certain cybersecurity and data protection standards have been met.

21. I encourage businesses to view these trustmarks as investments and a competitive advantage.

NURTURING A FUTURE-READY WORKFORCE

22. Our Digital Economy efforts are powered by the InfoComm (I&C) sector. Last year, the sector contributed \$28.4 billion to the economy, accounting for 5.6% of GDP, and grew by 12.2%, far outpacing other sectors.

23. Ms Tin Pei Ling and Mr Seah Kian Peng spoke about helping our people seize opportunities in the Digital Economy. Indeed, the growing and vibrant tech sector creates many good jobs and opens up many exciting opportunities for Singaporeans.

24. Our Digital Economy employs around 216,000 ICT professionals, with half of them in the ICT sector, and the other half supporting digital transformation in non-ICT sectors like finance, manufacturing, and retail.

25. Around 10,000 more ICT professionals have been added each year in recent years, yet 19,000 tech roles remain unfilled across the economy, particularly in roles like software engineering and development, but also across the entire tech value chain, from deep technical skills in AI and cybersecurity, to innovation-oriented roles in product development, and applied business roles, like cloud migration and data analytics.

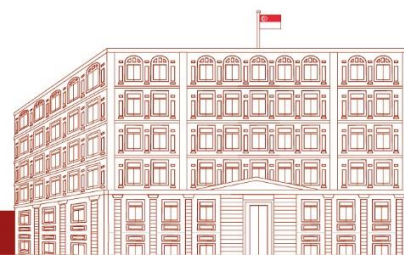
26. Our priority is to nurture a strong pipeline of local tech talent, including fresh graduates and mid-career workers, while ensuring our existing tech workforce remains relevant and competitive in this fast-changing digital space.

27. In the next three years, around 23,000 local students will graduate from our IHLs in Information and Digital Technologies (IDT) courses. In this regard, let me outline two important moves we are making.

28. First, we will strengthen our pipeline of ICT graduates from our universities. The number of local IDT degree places has risen four-fold from 800 in 2010, to 3,300 in 2021. As a proportion of all degree places, the number of IDT places increased from 7% in 2010 to 18% in 2021, close to 1 in 5.

29. We will also establish new programmes and specialisations to support emerging tech needs in different sectors. An example is the new Bachelor of Science in Applied Computing, with specialisation in FinTech that will be launched this year by the Singapore Institute of Technology, in partnership with IMDA and MAS, and supported by financial institutions including AIA and Standard Chartered Bank.

30. We look forward to working with other sector leads on different training modalities for specific skills needs for their sectors.



31. Second, we will help our Polytechnic and ITE graduates enter tech roles through more structured pathways. Some Polytechnic and ITE IDT graduates shared with us that they cannot find suitable entry-level roles in their areas of study, while others encounter employers who prefer university graduates, even though our Polytechnic and ITE graduates are capable of doing these jobs.

32. Structured support and clearly-defined scaffolding in their career pathways can make a world of difference.

33. I recently met Mr Muhammad Syurhan Bin Ja'afar, who graduated from our Work-Study Diploma programme in Data Centre Infrastructure & Operation. Syurhan graduated from ITE with a Nitec in ICT (Cloud Computing), and gained first-hand experience of the tech sector through his internship at NCS. However, his family's financial situation meant that he had to forgo his plans to take up a diploma.

34. It was only later, with the encouragement of his Class Advisor, that he applied for the Work-Study programme, and gained a place with the sponsorship of Racks Central Data Centre. Syurhan shared with me that his company's support, and a structured career pathway, gave him the confidence to complete the course.

35. To help others like Syurhan pursue their passion and realise their ambitions, we will put in place a structured, end-to-end approach to better support our Polytechnic and ITE students, starting with 1,000 places over the next 3 years.

36. We will establish a TechSkills Accelerator (TeSA) for ITE and Polytechnics (TIP) Alliance, comprising leading global tech companies, leading companies here, and major hirers to galvanise industry support for this effort.

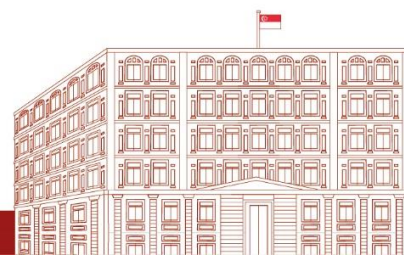
37. We will enhance the quality of internship opportunities for Polytechnic and ITE students, to apply their knowledge outside of the classroom. After graduation, they will be able to take up apprenticeships at participating companies under place and train programmes, to learn the ropes of the ICT roles.

38. Participating companies will also establish skills-oriented training plans and pathways for tech roles for these graduates, including certifications and specialist training. These graduates interested in further studies will be supported through Work-Study Diploma or Degree programmes, spanning growth areas like AI, Cloud and cybersecurity.

39. I am heartened that companies like Accenture, GovTech, IBM, NCS, and PSA Corporation have made significant commitments to provide internship, apprenticeship, or placement opportunities, and I urge more industry leaders to join this meaningful effort.

40. In addition to fresh graduates, many enter the industry as mid-career workers, such as through the TeSA initiative. Many joining the sector aim to progress in their careers, taking on higher value roles, such as product managers, software engineers, or solution architects. We want to support these aspirations of our tech professionals.

41. We will partner industry leaders like Google, Microsoft, and Grab, as well as large end-user companies like DBS, to groom product engineering talents for these roles. Those on this specialist track will be trained in advanced technical skillsets like software and application development, data analytics, AI and Cloud, through both instructor-led and hands-on programmes.



42. These tech professionals can look forward to taking on senior technical roles in their companies over time.

43. IMDA will also launch the ICT Jobs Transformation Map (JTM) later this year, to help employers and employees across the ICT sector identify areas of high impact, and the relevant reskilling or upskilling opportunities and training needed.

44. Mr Chairman, in closing, our moves to help businesses thrive in a Digital Economy, and nurture a future-ready digital workforce, will help us ensure that the digital wave is one that lifts all boats.

45. I look forward to your continued support as we journey towards our shared digital future. Thank you.

