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Malaysia Digital Economy Blueprint

Digitalisation is no longer a choice but are you ready for it?

19 February 2021

Malaysia Digital Economy Blueprint

- **MyDIGITAL** was launched on 19 February 2021 and is aspired to transform Malaysia into a **digitally-enabled and technology-driven high income nation**, and a **regional lead in digital economy**. It is designed to complement national development policies such as the Twelfth Malaysia Plan (RMK 12) and Shared Prosperity Vision (SPV) 2030.

- The **Malaysia Digital Economy Blueprint** has outlined **six strategic thrusts, 22 strategies, 48 national initiatives and 28 sectoral initiatives** to drive the growth of digital economy that will have generate positive multiplicative effects on the **Rakyat, Business and Government**.

Three Phases of Implementation

- **Phase 1 (2021-2022)**: To accelerate adoption towards strengthening the digital foundation needed for the rapid and smooth rollout of Phase 2 and Phase 3.
- **Phase 2 (2023-2025)**: To drive digital transformation, inclusivity and inclusion across all levels.
- **Phase 3 (2026-2030)**: To chart the pathway for strong, sustainable growth in the decades to come, positioning Malaysia to become a regional market producer.

Malaysia Digital Economy Blueprint – Outcome and Targets

Intended outcome

Towards inclusive, responsible and sustainable socioeconomic development

- **Socio-environmental wellbeing for all**
- **Business growth in all sectors**
- **Fit-for-future government**

Whole-of-nation approach (People-Private-Public Partnership)

Outcome-oriented cohesive strategies and initiatives

Delivery-driven governance structure

Malaysia aims to achieve the following selected targets:

Rakyat

- Creation of 500,000 new jobs
- 100% household with access to internet
- All students to have access to online learning

Business

- 30% uplift in productivity across all sectors by 2030
- 22.6% of digital economy to Malaysia's GDP
- 875,000 micro, small and medium enterprises (MSMEs) adopt e-commerce

Government

- 100% civil servants to possess digital literacy
- 80% end-to-end online government services
- All ministries and agencies to provide cashless payment option in 2022
- 80% usage of cloud storage across the government in 2022

- Attract 2 unicorns (home-grown or foreign)
- RM70 billion investment in digitalisation
- Increase the number of start-ups to 5,000

Accelerating the digital economy is no longer an option but crucial for Malaysia

- Global trends of digitalisation have shown that the digital economy is the most important engine of innovation, competitiveness and economic growth. Southeast Asia has the fourth largest internet market in the world and a growing e-commerce sector, with 14 unicorns.
- The COVID-19 pandemic has accelerated the growth of the digital economy, thereby helping build economic resilience. However, digitalisation in all facets of life also increase the risk of digital divide. The inappropriate use of and vulnerabilities in digital technologies erode trust. The advancement of digital technology is rendering conventional skills irrelevant.
- As digital technologies become more prevalent, the digital economy has the potential to enhance Malaysia's economic competitiveness and dynamism. The impact of the digital economy is wide-ranging and transformative, and is able to influence society, business and government.

SOCIETY
- Job opportunities for gig and digitally skilled workers

BUSINESS
- New business models offer new products and services
- Larger market catchment for commercial activities

GOVERNMENT
- Improved public service delivery

Malaysia's current state of digital economy

Connectivity

Internet usage in Malaysia is widespread. Most of the daily activities across society, businesses and government involve using digital devices. Broad e-commerce activities have also contributed to the growth of the digital economy, strengthening Malaysia's position in the region.

90.1%
households have internet connections (2019)

40th
in Speedtest Global Index with 81.46 Mbps fixed broadband speed (2020)

135.4%
mobile cellular penetration (2019)

93.1%
population use smartphone to access the internet (2018)

70.2%
mobile subscriptions are 4G (2019)

The digital divide between urban and rural

Household access to mobile broadband (2019)

88.8%
of **urban** households have access to mobile broadband

80.4%
of **rural** households have access to mobile broadband

Household access to fixed broadband (2019)

35.3%
of **urban** households have access to fixed broadband

11.7%
of **rural** households have access to fixed broadband

Source: Malaysia Digital Economy Blueprint

Malaysia's current state of digital economy (cont.)

Activities

81%
Malaysians are active on social media (2020)

66%
of internet users use mobile banking (2019)

RM900 million
Estimated data centre market (2018)

Top 5
social media penetration in Southeast Asia (2019)

144
e-payment transactions per capita (2019)

47th
Malaysia's ranking in the UN-EGDI (2020)

3rd in SEA
in ride-hailing utilisation (2019)

90%
of government services are online

41st
Malaysia's ranking in Digital Adoption Index (2016)

eCommerce

~RM16 billion
eCommerce market value in Malaysia in 2019

Food, travel, clothing, cosmetics, perfumes and sports – the most popular categories in eCommerce

3rd in SEA
in eCommerce penetration among individuals; 4 in 10 transactions involve cross-border spending

44% of micro, small and medium enterprises (MSMEs) are using cloud computing, but more than 80% of them are using mainly for storing documents, photos and videos

50% of MSMEs are using some form of data analytics, where 70% of them are referring to spreadsheet

35% of MSMEs have deployed Internet of Things (IoT) solutions but mainly for building surveillance and fleet tracking

Job market is changing

Job displacements
due to changing skills and requirements

Rise of gig economy workers
4 in 10 Malaysians to join gig economy after leaving full time jobs (before COVID-19)

Source: Malaysia Digital Economy Blueprint

Malaysia's performance in key global indices

IMD WORLD DIGITAL COMPETITIVENESS RANKING (FUTURE READINESS)			
	2017	2018	2019
Australia	14	11	14
Canada	8	9	18
Finland	4	8	7
Singapore	6	15	11
Thailand	45	49	50
Malaysia	27 ▼	29 ▲	28

WEF GLOBAL COMPETITIVENESS INDEX (ICT ADOPTION)			
	2017	2018	2019
Australia	27	22	21
Canada	23	34	35
Finland	16	16	13
Singapore	14	4	5
Thailand	61	64	62
Malaysia	46 ▲	32 ▼	33

THE INCLUSIVE INTERNET INDEX 2020			
	Overall	Availability	Readiness
Australia	4	13	24
Canada	7	18	13
Singapore	15	2	22
Thailand	39	29	69
Malaysia	35	38	3

- Malaysia's performance was largely stagnating (ranked between 27th and 29th) in terms of future readiness for digital competitiveness in 2013-2019 (with the exception of 23rd in 2014). For 2020, Malaysia's position slipped to 32nd, owning to the weaknesses in internet retailing and software piracy.

- More efforts are needed to elevate our country towards becoming a regional leader in digital economy and achieving inclusive, responsible and sustainable socioeconomic development.

Source: Compiled in Malaysia Digital Economy Blueprint

The Case for Change in advancing Malaysia's digital economy

- The digital economy offers enormous opportunities that Malaysia has yet to be fully leveraged upon, due to several issues and challenges. The case for change is grouped into six areas as below.

The need to have digital-first mindset and higher digital technology adoption across the public sector

The need for better deployment of quality broadband and digital technologies infrastructure

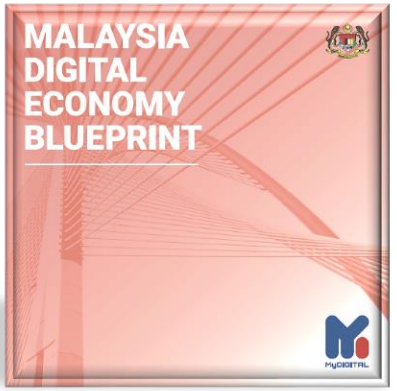
The digital divide among income and age groups, and between gender need to be narrowed

The need to build trust and ethics in using data and technology as well as increasing awareness on cyber security

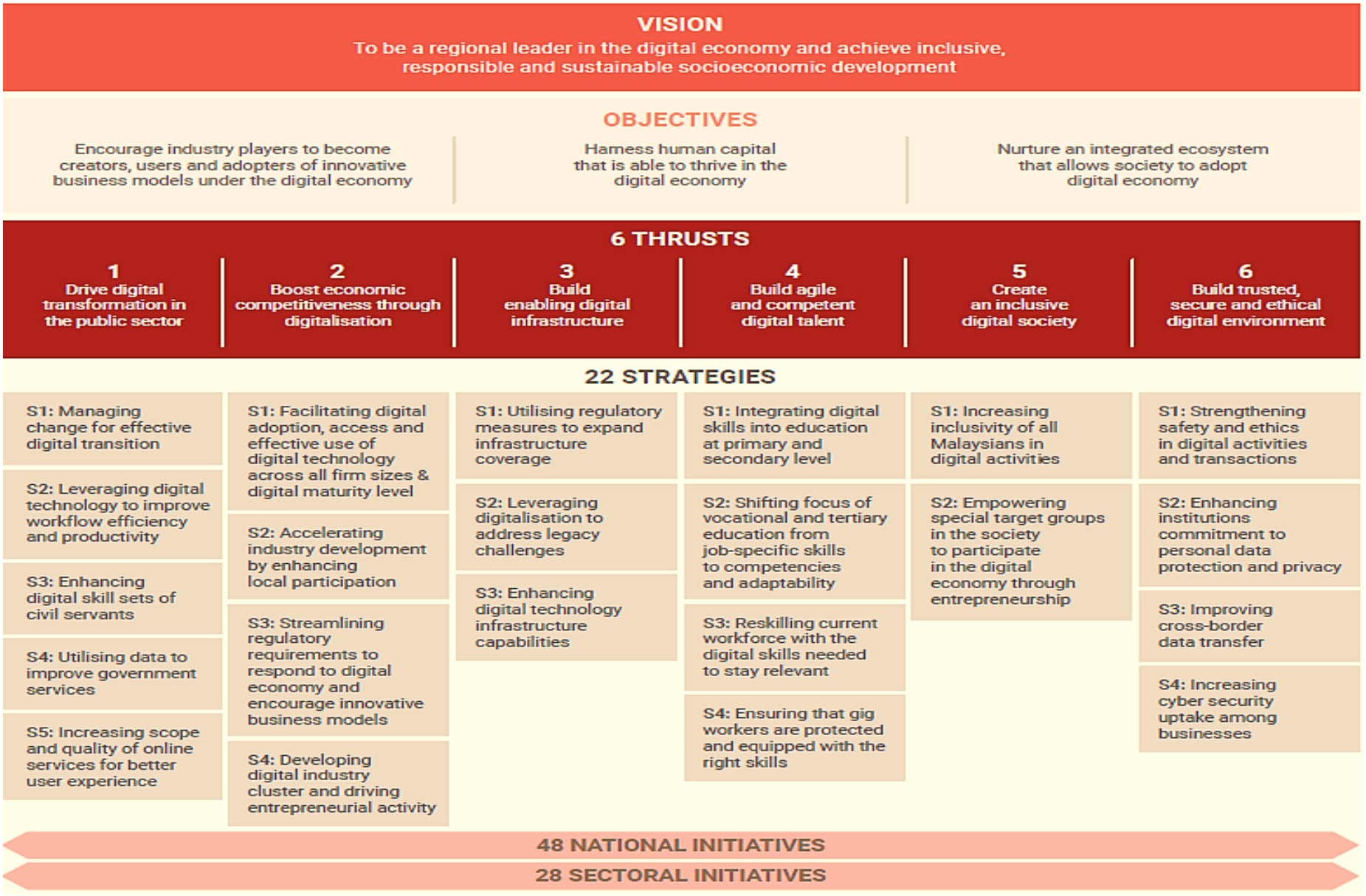
The need to build a more supportive ecosystem for local enterprises to digitalise

The need to nurture a future-ready workforce

The six areas of case for change form the basis to develop thrusts, strategies and initiatives of the **Malaysia Digital Economy Blueprint**



Three guiding principles: Inclusivity, Ethics, Trust



The roadmap to achieve the future and targeted outcomes

Three phases in the implementation roadmap to achieve the long-term aspirations …

Phase 1: 2021 – 2022

Accelerate adoption towards strengthening the digital foundation

- Data and digital intelligence at the heart of the digital economy in Malaysia, with the government leading this effort
- Conducive regulatory framework that can expedite digital infrastructure development
- Increased confidence to use technology across all levels of society

Phase 2: 2023 – 2025

Drive transformation and inclusion

- A government with extensive use of e-government services, where technologies and data are used effectively to benefit the public and businesses
- Local champions with the potential to become regional leaders are identified and groomed
- Faster and increased rollout of broadband infrastructure projects
- Competent and agile workforce that adds greater values to the economic sectors as well as to the communities they live in
- Equitable access to opportunities to uplift socioeconomic status
- Increased trust in the management of personal data and data privacy agencies
- Agile regulations for the gig economy while ensuring unhindered business innovation

Phase 3: 2026 – 2030

Become a regional market producer for digital products and digital solutions provider

- A data-driven government, where processes are highly digitalised and data is at the centre of its administration that connects the society, businesses and government
- High ease of doing business, where the government provides a highly conducive environment for businesses to start and operate
- A high quality pool of digital talent and an inclusive digital society
- Increased cyber security awareness among businesses and society members

Malaysia Digital Economy Blueprint – Thrusts and Strategies

Six thrusts supported by 22 strategies …

T1 Drive digital transformation in the public sector	T2 Boost economic competitiveness through digitalisation	T3 Build enabling digital infrastructure	T4 Build agile and competent digital talent	T5 Create an inclusive digital society	T6 Build trusted, secure and ethical digital environment
S1: Managing change for effective digital transition	S1: Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level	S1: Utilising regulatory measures to expand infrastructure coverage	S1: Integrating digital skills into education at primary and secondary level	S1: Increasing inclusivity of all Malaysians in digital activities	S1: Strengthening safety and ethics in digital activities and transactions
S2: Leveraging digital technology to improve workflow efficiency and productivity	S2: Accelerating industry development by enhancing local participation	S2: Leveraging digitalisation to address legacy challenges	S2: Shifting focus of vocational and tertiary education from job-specific skills to competencies and adaptability	S2: Empowering special target groups in the society to participate in the digital economy through entrepreneurship	S2: Enhancing institutions commitment to personal data protection and privacy
S3: Enhancing digital skill sets of civil servants	S3: Streamlining regulatory requirements to respond to digital economy and encourage innovative business models	S3: Enhancing digital technology infrastructure capabilities	S3: Reskilling current workforce with the digital skills needed to stay relevant		S3: Improving cross-border data transfer
S4: Utilising data to improve government services	S4: Developing digital industry cluster and driving entrepreneurial activity		S4: Ensuring that gig workers are protected and equipped with the right skills		S4: Increasing cyber security uptake among businesses
S5: Increasing scope and quality of online services for better user experience					

Six Thrusts & 22 Strategies & 48 National Initiatives

THRUST 1: DRIVE DIGITAL TRANSFORMATION IN THE PUBLIC SECTOR

S1: Managing change for effective digital transition

1. Transform MAMPU to better drive digitalisation and respond to rapidly evolving digital technologies
2. Chief Information Officer in every ministry to take on the Chief Digital Officer role to create a digitally-driven culture

S2: Leveraging digital technology to improve workflow efficiency and productivity

1. Increase adoption of digital technologies and utilise digital tools to improve efficiency and productivity
2. Introduce a Digital Accelerator in every ministry to create in-house experts to identify and increase digital technology usage
3. Introduce the Digital-First programme to enhance Federal and state levels usage of cloud services

S3: Enhancing digital skill sets of civil servants

1. Develop "Digital Transformers" to groom highly skilled civil servants comprising technical experts and professional ICT-related talent
2. Develop and upskill civil servants with digital skills, across all grades and schemes

S4: Utilising data to improve government services

1. Establish data-driven policy development and improve the data sharing environment to ensure data quality

S5: Increasing scope and quality of online services for better user experience

1. All federal and state level agencies to adopt cashless payments as the preferred method for more efficient transactions
2. Enhance Government Online Services Gateway (GOS Gateway) with integrated systems for greater ease of doing business
3. Accelerate National Digital Identity (NDI) implementation to improve security, service delivery and convenience
4. Accelerate digital signature implementation across public sector online services to enable end-to-end digital transactions

THRUST 2: BOOST ECONOMIC COMPETITIVENESS THROUGH DIGITALISATION

S1: Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level

1. Provide a tailored "Digital Compass" for businesses to foster digital usage

S2: Accelerating industry development by enhancing local participation

1. Organise a national open data digital challenge that encourages innovatively solving social and environmental issues

S3: Streamlining regulatory requirements to respond to digital economy and encourage innovative business models

1. Nurture a dynamic IP system for the digital economy to encourage innovations
2. Adopt an agile regulatory approach to meet the needs of digital economy businesses
3. Streamline pro-competition measures with digital economy policy to promote fair competition

S4: Developing digital industry cluster and driving entrepreneurial activity

1. Empowering local champions and stimulating investment through digital industry clusters
2. Incorporate comprehensive digital economy elements in international trade arrangements and cooperation
3. Introduce fit-for-purpose tax framework to capture revenue from the digital economy growth

Quick-win initiative

Bold and new initiative

Six Thrusts & 22 Strategies & 48 National Initiatives (cont.)

THRUST 3: BUILD ENABLING DIGITAL INFRASTRUCTURE

S1: Utilising regulatory measures to expand infrastructure coverage

1. Review laws and regulations to improve provision for digital infrastructure
2. Broadband to be mandated as basic infrastructure to ensure internet access for new developments

S2: Leveraging digitalisation to address legacy challenges

1. Expand the adoption of OSC 3.0 Plus Online to more local authorities to speed up approval process in deploying broadband infrastructure
2. Provide real-time broadband demand platform for effective planning and monitoring

S3: Enhancing digital technology infrastructure capabilities

1. Boost capabilities of domestic data centre companies to provide high-end cloud computing services
2. Attract more international submarine cables landing in Malaysia to expand global connectivity

THRUST 4: BUILD AGILE AND COMPETENT DIGITAL TALENT

S1: Integrating digital skills into education at primary and secondary level

1. Introduce "My Device" programme to ensure all students in Malaysia can access digital learning
2. Introduce digital packages to ensure all schools in Malaysia have good connectivity
3. Adopt digital technology through collaboration with the private sector to enhance overall learning environment
4. All schools in Malaysia to be Digital Maker Schools
5. Introduce "My Digital Teacher" programme to encourage teachers to fully embrace the use of digital tools and technology
6. Expand an open access knowledge bank to house teaching materials for educators

S2: Shifting focus of vocational and tertiary education from job-specific skills to competencies and adaptability

1. Expand public-private collaboration through Malaysia Board of Technologies (MBOT) to ensure the graduates are equipped with skills needed by the industry

S3: Reskilling current workforce with the digital skills needed to stay relevant

1. Launch the "Social Entrepreneurs Circle" programme to equip social entrepreneurs with digital skills and provide a networking platform
2. Introduce a training programme for senior managers to improve digital skills
3. Streamline reskilling initiatives by various government agencies onto a centralised portal for ease of access
4. Introduce professional upskilling programmes related to the digital economy

S4: Ensuring that gig workers are protected and equipped with the right skills

1. Introduce the "GigUp" programme to equip gig workers with versatile skills
2. Introduce long-term social protection for gig workers

Quick-win initiative

Bold and new initiative

Six Thrusts & 22 Strategies & 48 National Initiatives (cont.)

THRUST 5: CREATE AN INCLUSIVE DIGITAL SOCIETY

S1: Increasing inclusivity of all Malaysians in digital activities

1. Introduce My Ikrar programme to encourage volunteerism in conducting digital training
2. Establish centralised database to provide a comprehensive and up-to-date data on digital divide
3. Promote electronic payment onboarding programme for both merchants and consumers towards a cashless society

S2: Empowering special target groups in the society to participate in the digital economy through entrepreneurship

1. Providing an online platform to facilitate better access for vulnerable groups

THRUST 6: BUILD TRUSTED, SECURE AND ETHICAL DIGITAL ENVIRONMENT

S1: Strengthening safety and ethics in digital activities and transactions

1. Reinforce cyber security outreach to all levels of society
2. Enhance education module to promote netiquette in schools

S2: Enhancing institutions commitment to personal data protection and privacy

1. Strengthen data protection and related regulatory framework to ensure holistic personal data protection and privacy

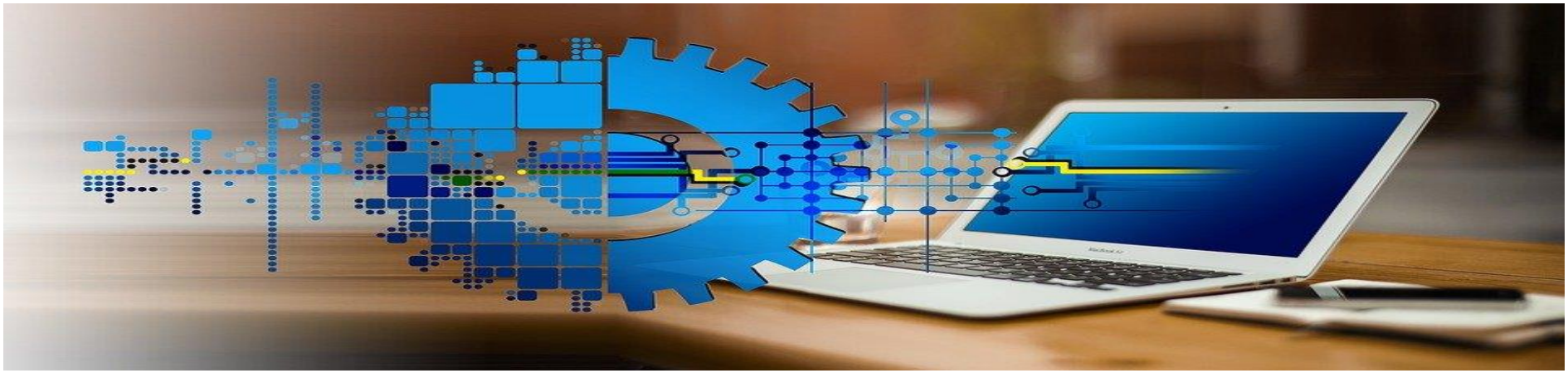
S3: Improving cross-border data transfer

1. Strengthen cross-border data transfer mechanisms and protection to facilitate seamless data flows

S4: Increasing cyber security uptake among businesses

1. Encourage companies to invest in cyber security to create a safe, secure and trusted digital ecosystem

Quick-win initiative



What are the targets?

THRUST 1: DRIVE DIGITAL TRANSFORMATION IN THE PUBLIC SECTOR

- Transformation of MAMPU with augmented roles and functions by 2022
- Every ministry and agency to have Chief Digital Officer (CDO) reporting to Government Cluster
- 80% end-to-end online government services
- Ranked 12th in the Online Services Index by 2025
- Appointment of Digital Accelerator in every ministry by 2022
- 80% of cloud storage across the government in 2022
- Circular on remote work approach by 2021
- 250 certified trainers under Digital Government Competency and Capability Readiness programme by 2025
- Establishment of a digital development cluster by 2022
- 100% civil servants to possess digital literacy in 2025
- 50% data must be machine-readable, with access to the data through APIs
- All ministries and agencies to develop access to data through APIs
- All ministries and agencies to use MyGDX
- All ministries and agencies to provide cashless payment option by 2022
- 85% end-to-end online government services to be integrated
- Full implementation of the National Digital Identity (NDI) by 2025
- Full adoption of digital signature in the public sector by 2025

THRUST 2: BOOST ECONOMIC COMPETITIVENESS THROUGH DIGITALISATION

- More than 800,000 micro, small and medium enterprises (MSMEs) adopt digitalisation
- Contribute to the creation of at least 5,000 start-ups by 2025
- Reviewed intellectual property (IP) laws by 2023
- More than 50,000 IP ownership by 2030
- Reviewed competition laws by 2023
- Competition impact assessment framework included in the regulatory impact assessment process in the formulation of laws and policies
- Five unicorns (homegrown or foreign) in the key digital industry clusters operationally headquartered in Malaysia
- Key and strategic digital economy elements incorporated in all international trade arrangements and cooperation pursued by Malaysia
- Introduction of tax frameworks and guidelines based on international best practices by 2025

What are the targets? (cont.)

THRUST 3: BUILD ENABLING DIGITAL INFRASTRUCTURE

- All federal and state legislations and regulations relating to digital infrastructure development are reviewed by 2025
- Legislations relating to broadband as a basic utility at the federal and state levels are streamlined by 2025
- All local authorities to use OSC 3.0 Plus Online
- Real-time broadband platform providing accurate information on nationwide demand for coverage
- Local data centre industry revenue at RM3.6 billion by 2025
- Malaysia to have the highest number of submarine cables landing in Southeast Asia by 2025

THRUST 4: BUILD AGILE AND COMPETENT DIGITAL TALENT

- Each school student to have access to individual digital device
- All schools have access to internet connectivity
- All schools adopt digital solutions and technology in the delivery of education by 2025
- 2,500 My Digital Maker Champion Schools by 2030
- All teachers undergone My Digital Teacher training programme by 2025
- Establishment of an open access knowledge bank by 2025
- All higher education institutions (HEIs) in Malaysia are strategic partners in the Malaysia Board of Technologies (MBOT)
- All social entrepreneur will become members in the Social Entrepreneur Circle by 2025
- 50% of senior management in Government-linked companies (GLCs), multinational companies (MNCs) and MSMEs to participate in the programme by 2025
- MYFutureJobs as a single platform for upskilling and reskilling programme for all employers and employees in Malaysia by 2030
- Develop professional digital talent including 20,000 cyber security knowledge workers and 30,000 data professionals by 2025
- All gig workers in sharing economy participate in the “GigUp” programme by 2025
- All gig workers to have social protection

What are the targets? (cont.)

THRUST 5: CREATE AN INCLUSIVE DIGITAL SOCIETY

- Implementation of 222 My Ikrar programmes until 2022
- A single database on vulnerable groups established by 2022
- Digital Inclusion Index Malaysia (DIIM) developed by 2023
- 400 electronic payment transaction made per capita by 2022
- 36 EFTPOS terminals per 1,000 inhabitant by 2022
- 875,000 MSMEs onboard e-commerce by 2025

THRUST 6: BUILD TRUSTED, SECURE AND ETHICAL DIGITAL ENVIRONMENT

- 75% of Malaysians are aware of cyber security and cyber crime
- 60% of cyber crime cases can be prosecuted
- Implementation of netiquette modules as part of national education curriculum by 2025
- Personal Data Protection Act (PDPA) reviewed by 2025
- Other relevant laws reviewed by 2030
- Completion of enhancement to PDPA cross-border data transfer provisions and implementation mechanism by 2025
- All new trade agreements to incorporate cross-border data protection elements
- 70% of companies adopt cyber security measures by 2025

Sectoral initiatives

There are 28 sectoral initiatives enable sectoral-specific opportunities that are arising from global and regional trends to be captured and they are aligned with the three objectives of the blueprint.

Three Themes

- Digital adoption
- Data sharing and analytics
- Digital skills

Four Sectors

Agriculture | Construction | Manufacturing | Services

10 SERVICES SUBSECTORS

- Tourism
- Arts, Entertainment and Recreation
- Education
- Financial and Insurance
- Healthcare
- Information and Communication Technology
- Professional Services
- Transportation and Logistics
- Wholesale and Retail Trade
- Food and Beverages

Sectoral initiatives (cont.)

Agriculture

Promote smart farming adoption through a centralised open data platform amongst industry players

Outcome

- Increased digital adoption and generated new business models by accessing the open data platform and identifying specific cost-cutting measures

Create more local digital platforms to enable access to 'Farm to Table' digital marketplace

Outcome

- Increased participation in digital marketplace and sales of farmers

Contribute to target:

- To have machine-readable data, with access through API
- Contribute to creation of at least 5,000 start-ups by 2025
- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors

Quick-win initiative

Bold and new initiative

Manufacturing

Establish technology labs and collaborative platforms, especially through public-private partnerships (PPPs)

Outcome

- More access for local companies, especially micro, small and medium-sized enterprises, to key enabling Industry 4.0 technologies and partners as well as stronger collaboration in deploying new technologies across value chains

Develop customised national development programmes for specific manufacturing subsectors

Outcome

- Increase in overall labour productivity and skills of workers to mitigate potential job losses

Contribute to target:

- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors
- Top 20 under the Knowledge and Technology pillar in Global Innovation Index
- Top 15 under the Skills pillar in the WEF Global Competitiveness Index
- Contribute to creation of at least 5,000 start-ups by 2025

Sectoral initiatives (cont.)

Construction

Increase and accelerate the construction industry's adoption of digital technologies throughout the construction project lifecycle

Outcome

- Increased the adoption of digital technologies in the construction industry

Expand HRDF claimable programme to cover new and CIDB organised digital skills training programmes

Outcome

- More workers adept at relevant digital technologies

Contribute to target:

- To have machine-readable data, with access through API
- Contribute to creation of at least 5,000 start-ups by 2025
- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors
- Top 15 under the Skills pillar in the WEF Global Competitiveness Index
- Top 20 under the Knowledge and Technology pillar in Global Innovation Index
- At least five smart cities established by 2025

Intensify research, development, commercialisation and innovation (R&D&C&I) in emerging digital technologies in centres of excellence for sustainable construction

Outcome

- Increased the number of buildings and infrastructure which feature emerging digital technologies and sustainability

Introduce an enhanced mechanism to accelerate the roll out of smart cities

Outcome

- Increased partnership between cities and industry and technology partners to roll out smart cities

Quick-win initiative

Sectoral initiatives (cont.)

Services

Tourism

Establish a comprehensive tourism database with open access for industry stakeholders

Outcome

- Accurate and informed decision making by stakeholders and increased innovation in the tourism ecosystem

Strengthen digital marketing activities to enable wider connection and engagement with customers

Outcome

- More competitive tourism industry

Contribute to target:

- To have machine-readable data, with access through API
- Contribute to creation of at least 5,000 start-ups by 2025
- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors

Healthcare

Develop a framework for rapid adoption of technology for healthcare-related products

Outcome

- Shortened approval process for healthcare product commercialisation

Accelerating the usage of the Malaysia Health Data Warehouse (MyHDW) with the inclusion of blockchain

Outcome

- More efficient policy making and leaner operations for healthcare service delivery

Contribute to target:

- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors
- To have machine-readable data, with access through API

Bold and new initiative

Sectoral initiatives (cont.)

Services

Transportation and logistics

Promote and encourage a centralised and open transport database to allow for more and better analytics, monitoring and evaluation

Outcome

- Efficient and smart mobility of people and goods

Expedite the implementation of ubiquitous customs (uCustoms) system

Outcome

- Efficient customs clearance in logistics services

Contribute to target:

- To have machine-readable data, with access through API
- 5% growth of public transport ridership in Greater KL/Klang Valley by 2025
- Increase in digital adoption rate across businesses
- Top 30 ranking in the World Bank Logistics Performance Index in 2025

Wholesale and retail trade

Facilitate collaboration between retailers and last-mile delivery services providers via open API system

Outcome

- Increased adoption of technologies amongst stakeholders and better customer experience

Equip existing wholesale and retail subsector workforce with digital skill sets

Outcome

- Digitally skilled workforce

Contribute to target:

- To have machine-readable data, with access through API
- Contribute to creation of at least 5,000 start-ups by 2025
- Contribute to 875,000 MSMEs adopt e-commerce by 2025
- Contribute to 30% uplift in labour productivity across all sectors
- Top 15 under Skills pillar in WEF Global Competitiveness Index

Quick-win initiative

Sectoral initiatives (cont.)

Services

Arts, entertainment and recreation

Enable virtual access to cultural products and services via high-resolution image technologies such as virtual reality and augmented reality

Outcome

- High quality experience of local arts, entertainment and culture are accessible globally

Encourage the usage of digital technologies in amusement and recreation parks

Outcome

- Seamless and enhanced visitor experience in local amusement and recreation parks

Nurture and upskill digital talent in the creative industry

Outcome

- Malaysia as a regional hub for digital content

Contribute to target:

- Increase in digital adoption rate across businesses
- Contribute to 30% uplift in labour productivity across all sectors
- Reduce in number of incidents in amusement and recreation parks
- 200 IP creation in digital content by 2025
- 8% average annual growth rate of digital content export from 2021 to 2025
- Top 20 under the Knowledge and Technology pillar in Global Innovation Index

Financial and insurance

Establish Fintech Innovation Accelerator Programme to accelerate the growth of fintech start-ups

Outcome

- Malaysia as a fintech gateway to the ASEAN market and become an ideal regional centre for early stage fintech start-ups

Contribute to target:

- Increase in digital adoption rate across businesses
- Contribute to creation of at least 5,000 start-ups by 2025

Sectoral initiatives (cont.)

Services

Education

Encourage textbook and workbook publishers to explore digitalisation and move to e-book and interactive formats

Outcome

- Continuous improvement of digital materials for education with lower cost

Empower education centres and educators to adopt digital technologies to carry out online teaching

Outcome

- Enhanced access to online education

Develop and establish technical guidelines for data usage in education sector

Outcome

- Effective custodianship of students data while ensuring compliance with regulations, as well as safeguarding all users

Contribute to target:

- All students in Malaysia to have access to online learning
- Increase in digital adoption rate across businesses
- All educators in Malaysia to use digital tools and technology
- To have machine-readable data, with access through API
- To have a secure and reliable education ecosystem

ICT

Promote open access, and a centralised database, supported by sector-specific technical guide on personal data protection

Outcome

- Accurate and informed decision making by stakeholders and increased innovation in the ICT industry

Contribute to target:

- To have machine-readable data, with access through API
- Sector-specific technical guide on personal data protection established

Sectoral initiatives (cont.)

Services

Professional services

Establish a sectoral-based digital skills development scheme to equip the current workforce in the professional services sector

Outcome

- The workforce is well equipped with the necessary knowledge and skills to meet the changing industry demands

Establish sector-specific digital toolkit to facilitate the improvement of digital capabilities of professional services firms

Outcome

- Improved productivity and efficiency of businesses which are at the early stage of digitalisation

Develop ethical guidelines for the usage of digital technologies within the professional services industry

Outcome

- Digital technologies are adopted in a secure and beneficial as well as minimising ethical risks

Contribute to target:

- Contribute to 30% uplift in labour productivity across all sectors
- Top 15 under Skills pillar in WEF Global Competitiveness Index
- Increase in digital adoption rate across businesses
- Top 15 of the Inclusive Internet Index by The Economist Intelligence Unit (EIU)

Food and beverages

Accelerate e-commerce onboarding programme for offline food and beverages (F&B) businesses

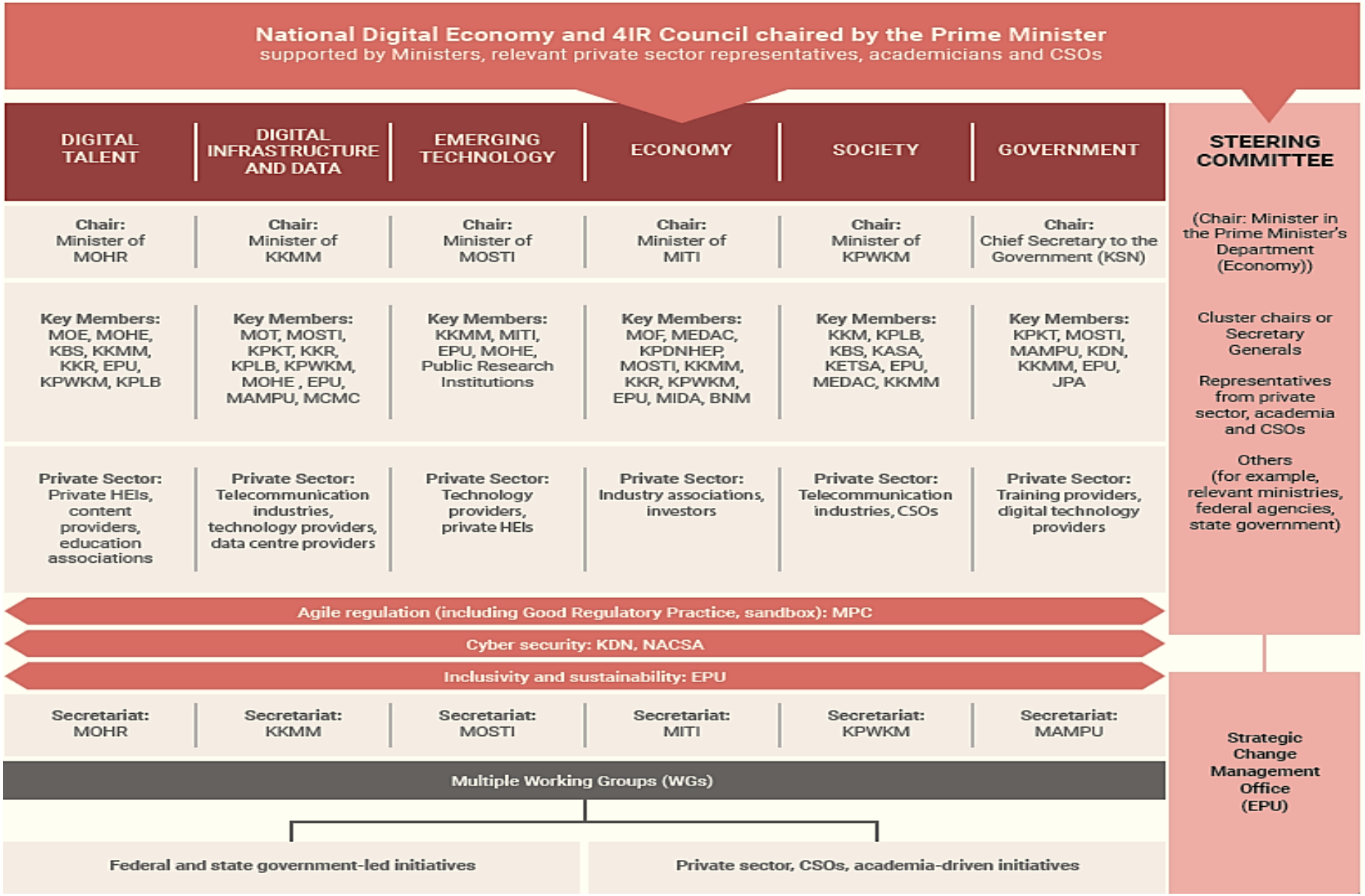
Outcome

- More F&B businesses onboard e-commerce to optimise their operations and improve customer experience

Contribute to target:

- Contribute to 30% uplift in labour productivity across all sectors
- Top 15 under Skills pillar in WEF Global Competitiveness Index
- Contribute to 875,000 MSMEs adopt e-commerce by 2025

Governance structure to oversee the implementation



Commentary

- In this growing digital world, the Government, businesses and individuals face a future of immense possibilities and challenges as we adapt to this new reality that the digital technologies have become the cornerstone of our daily economic life and business activities. The COVID-19 pandemic underscores the need to accelerate digitalisation in a new normal.
- This Malaysia Digital Economy Blueprint serves as one of the prime growth catalysts in championing the growth of a country-wide digital economy for all Malaysians. It is our hope that this blueprint will enhance a competitive digital ecosystem to realize the potential of digital transformation that will leapfrog our economy to prosperous heights.
- The digital economy is targeted to contribute 22.6% to Malaysia GDP by 2025. In 2019, the information and communication technology (ICT) had contributed RM289.2 billion (19.1% of GDP) to the Malaysian economy, growing by 8.0% p.a. from RM213.0 billion (18.1% of GDP) in 2015.
- It is utmost important to ensure that 48 national initiatives and 28 sectoral initiatives are well-executed to achieve the intended outcomes and targets. Hence, the implementation of MyDIGITAL will be overseen by a governance framework, which sets clear timelines for measurable outcomes as well as a transparent and clear monitoring and evaluation mechanism to establish complete feedback loops.
- The Government should publish the status of measurable outcomes and indicators at least once a year and the progress of implementation and development on semi-annual basis. Any behind schedule or off target outcomes should be rectified immediately.

Commentary

Public sector-led digital transformation

- The creation of a robust and advance digital economy is a whole-of-government-private sector effort, which requires articulation, consensus and the use of political will.
- To deliver on all outcomes for a digital economy, modernising internal government ICT platform is foundational to all aspects of a digital Government, whether it is external services (public delivery services) or internal operations is the best place to start.
- There are quick gains to the economy. Government investment in ICTs will lead to better, faster and more efficient public delivery services. Digitising health records and automating processes will lead to improved healthcare delivery. Agricultural information systems connecting government, farmers and agro-business will improve food security. Digitising land records will reduce fraud and unlock value. In addition, integrating ICTs in education increases skills base.
- Culture and concerns about the jobs displacement can be what holds public sector digitalization back. Technology often is not the biggest barrier, instead, mindset holds back some public sector bodies to embrace digital technologies to enhance public delivery services.
- The targets set for the digitalisation of public sector can be accelerated as some are low hanging areas.

Commentary (cont.)

Digital infrastructure

- Despite the Mandatory Standard on Access Pricing (MSAP) has reduced broadband prices and increased broadband speed, **the coverage and speed of broadband, particularly mobile broadband still markedly weaker than our regional peers**. According to Speedtest Global Index (January 2021), Malaysia's mobile download speed ranked 94th (out of 140) in the world and 8th among ASEAN. The 4G mobile network coverage under Network Readiness Index 2020 also showed that Malaysia was ranked 61st (out of 134), lagging behind Singapore, Thailand, India and Vietnam.

- The digital infrastructure (soft and hard), in particular high-speed broadband must be further enhanced and reinforced for electronic communications and applications that are crucial for transmitting data.

- Digital experience needs to be enhanced in terms of speed, reliability and coverage to narrow the urban-rural digital divides. The implementation of RM21.0 billion National Digital Network Plan (JENDELA) must be expedited. For example, all the industrial parks should be equipped with high speed internet infrastructure to enhance business operations.

Digital infrastructure investment

1 **RM21 billion will be invested over the next five years through National Digital Network (JENDELA)**

- Fixed line optical fibre network will cover almost 100% populated areas in stages, from 7.5 million premises by the end of 2022 to 9 million premises by the end of 2025.

2 **RM1.65 billion will be invested by several telecommunication companies**

Strengthen connectivity to the international submarine cable network until the year 2023

↓

Open up space for faster and more stable international data transfer

↓

Lower internet costs to consumers

3 **RM15 billion will be invested over a period of ten years for the implementation of 5G nationwide**

- ➢ Carried out by a special purpose vehicle under the Malaysian Government
- ✓ Create approximately a total of 105,000 job opportunities
- ✓ Rakyat will be able to enjoy the 5G technology in stages by the end of 2021

4 **Between RM12 billion and RM15 billion will be invested by the Cloud Service Provider (CSP) companies over the next five years**

Four CSPs to build and manage hyper-scale data centres and cloud services

Microsoft

Google

Amazon

Telekom Malaysia

Three local ICT companies as Manage Service Providers (MSP) to work with CSPs to manage their services to agencies in the public sector

- ➢ Enfrasys Solution Sdn Bhd
- ➢ Prestariang Systems Sdn Bhd
- ➢ Cloud Connect Sdn Bhd

RM21 billion National Digital Network (JENDELA) action plan

Jendela
Jalinan Digital Negara

Eight (8) targets realisation

JENDELA Targets

National target realisation of 96.9% mobile coverage, 35 Mbps speed and 83% of premises passed*

Four (4) policy support

Policy Support & Harmonisation

Four (4) CIMS KPIs have been proposed

National Digital Infrastructure Map

	2020	2021	2022
JENDELA Targets	Construct 940 new mobile sites in urban and suburban Upgrade 16,214 existing base stations at urban & suburban areas Fiberise 352,101 premises		
	Upgrade 4,589 existing 2G/3G base stations to 4G to expand coverage and increase the speed Sunset 3G network and migrate the spectrum for 4G technology use Fiberise 1,245,452 additional premises		
	Construct 1,661 new sites across Malaysia to extend the mobile 4G coverage in rural and remote areas Fiberise 929,631 additional premises		
Policy Support & Harmonisation	1 Blanket approval for States and PBTs (based on the commencement of USP sites) 2 Access to Federal-owned lands and buildings to develop digital infra 3 Digital infrastructure to be planned, deployed and treated as public utility 4 Standardisation of electricity tariff for communications service based on industrial rates		
National Digital Infrastructure Map	1 CIMS to be upgraded into a one-stop digital infrastructure databank	2 Rakyat-centric Portal on Service Coverage Availability by SPs 3 Policy Development on Infrastructure Asset Management Framework	4 Integration of e-Spectra and CIMS
	Phase 2: Ongoing discussion between MCMC and Ministries on introduction of 5G and new technology		
	5G demo	5G planning and priming for infra to be 5G-ready	5G rollout to meet the National Aspirations

* Service to be made available within 14 business days after request made by potential subscriber

Commentary (cont.)

- Attracting investment, especially FDI (to bring technology, technical know-how and create jobs) in the digital economy requires different set of policies and conducive regulatory framework as well as friendly investment environment as digital firms have business models that vary from traditional brick-and-mortar businesses.

- Digital firms and business models rely heavily on data and technology. A precursor to achieving such investment are policies and measures, including telemedicine, mobile banking and online sales, e-payment system and innovative digital financial solutions that encourage adoption of digital features to conduct business.

- Southeast Asia is a notable example where policies and measures have encouraged investment, such as the billions being invested in Gojek and Grab, ridesharing and delivery firms competing for market share in this region.

- While the data localization provisions mandate firms to establish a physical presence in a country, to store and process data locally through data centers, it remains uncertain whether this serves as an impediment for digital FDI.

- The growing digitalisation of the economy would bring new challenges to the tax systems. In recent years, several countries have either imposed or are contemplating imposing taxes on mobile and internet usage, electronic goods, digital services such as e-books, and online streaming. The adoption of digital tax would serve to reduce the competitive advantages of companies operating in the digital economy while equate a level playing field for brick-and-mortar businesses. It is unclear to what degree such taxes affect the adoption of digital.

Commentary (cont.)

Digital talents

- The blueprint has placed significant emphasis on human capital development to build agile and competent digital skilled workforce talent. If technologies and all other complementary factors were in place, but people did not have the skills to use such technologies, there would be no impact.
- The digital skills pillar must cover basic skills, intermediate skills and advanced skills at the different level of technologies adoption. Such skill-sets include: Entrepreneurial skills for example risk-taking, adaptability and critical thinking and intermediate and advanced digital skills such as data analytics, cloud, social media, digital marketing, and Web and App development.
- Hence, the Government-industry-academia (training institutions) collaboration is vital to develop adequate and future ready manpower that will provide technological solutions. Re-tooling of faculty and implementation, internship and apprenticeship programs, and mentorship opportunities are some avenues that may help bridge this gap.
- The Government also needs to look into the job displacement issue as some may be left out. These include devise a reskilling and upskilling program to help them equip with job-ready skills adapting to the digital environment.

Commentary (cont.)

Cyber security

- Data security and privacy are fundamental to building consumer trust in digital services. The necessary safeguards should be derived from a combination of internationally agreed approaches, national legislation and industry action. The Government should ensure legislation is service and technology neutral, so that rules are applied consistently to all entities that collect, store and process data.
- Based on Malaysia Computer Emergency Response Team (MyCERT), cyber crime cases had increased by 10.7% p.a. from 7,962 cases in 2017 to 10,790 cases in 2020. In 2020, more than 80% of total cybercrime cases were due to “Fraud” (7,593 cases or 70.4%) and “Intrusion” (1,444 cases or 13.4%).
- Most of the SMEs cannot afford to have a full fledge digital team to handle cyber security due to the cost and availability of talent, and hence, they are either vulnerable to or face constraint in managing data fraud, cyber theft or cyberattacks. In order to achieve 70% of companies adopt cyber security measures by 2025, the Government can provide a one-to-one matching grant for companies to implement cyber security measures, especially for the vulnerable and important sectors.

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THANK YOU

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