MALAYSIA DIGITAL ECONOMY BLUEPRINT

MyDIGITAL

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MALAYSIA DIGITAL ECONOMY BLUEPRINT

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FOREWORD BY

THE PRIME MINISTER OF MALAYSIA

YAB Tan Sri Dato' Haji Muhyiddin bin Haji Mohd. Yassin

The global economy, Malaysia included, continues to endure the severe challenges of the COVID-19 pandemic. This black swan event has affected Malaysians of every ethnicity and social strata as well as workers in both the public and private sectors. Whole industries faced upheavals, and many of our day-to-day interactions are now conducted virtually.

In 2020 alone, growth within the digital economy has understandably accelerated as the COVID-19 pandemic gave birth to new digital businesses, forced traditional brick-and-mortar enterprises to pivot online, and saw millions of Malaysians go virtual for their eCommerce, entertainment, and even education needs. Delivery of quality education now is dependent on a student's home broadband connectivity, or access to laptops or computers.

To ensure that no Malaysian is left behind to catch the wave of digitalisation, the time has come for us to lay the foundations for the country's transformation towards an advanced digital economy. This foundation means building the infrastructure, facilitating innovation and creating an ecosystem for all of us to contribute to bring forth higher standards of living, the fruits of which will be enjoyed by all Malaysians.

MyDIGITAL outlines the plans to accelerate Malaysia's progress as a technologically-advanced economy, through the Malaysia Digital Economy Blueprint. This will chart the path to strategically position ourselves as a competitive force in this new era. MyDIGITAL is a critical enabler in realising our Twelfth Malaysia Plan, 2021-2025 (RMKe-12), as we work towards *Wawasan Kemakmuran Bersama* 2030.

In facing this digital economy transformation, it is imperative for us to work together and take the necessary steps to adapt and collaborate for the next normal. The journey is not going to be easy but under unprecedented circumstances, we need to be brave enough to make this quantum leap forward to elevate the quality of life for all Malaysians.

PREFACE BY

MINISTER IN THE PRIME MINISTER'S DEPARTMENT (ECONOMY)

YB Dato' Sri Mustapa bin Mohamed

Malaysia has embarked on its digitalisation journey since 1996 with the introduction of the Multimedia Super Corridor. Through this initiative, the country has recorded some success stories, such as attracting domestic and foreign information and communication technology (ICT) companies to operate in specific economic zones.

Doubling down on our strengths alone will no longer work in the future, as the Fourth Industrial Revolution (4IR) and the rapid advancement of disruptive technologies including digital technology have shown the potential to significantly transform the economic landscape around the world. The COVID-19 pandemic has accelerated the wave of change in driving the *rakyat*, business and the government to adapt to digitalisation for their daily needs.

Malaysia will lose out in the increasingly competitive global economy if we are not ready for change. We need to embrace digitalisation which improves standard of living and prosperity. Research has shown that Artificial Intelligence (AI) technology can increase Gross Domestic Product (GDP) by up to 26% in the next decade. Digitalisation will also help achieve sustainable growth in the long term.

Current digitalisation efforts have shown much promise for our future. Malaysia's Information and Communication Technology (ICT) has amassed RM289 billion, accounting for 19.1% of GDP in 2019. The COVID-19 pandemic has accelerated the growth of the digital economy as well as encouraging the rakyat, traditional businesses as well as the government to shift online in meeting their daily needs.

The Government understands too well the treasure trove of opportunities that lay in embracing the digital economy towards its long-term goals as outlined in *Wawasan Kemakmuran Bersama* 2030 (WKB 2030). Launched in October 2019, WKB 2030 outlined a commitment to make Malaysia a nation that achieves sustainable growth along with fair and equitable distribution, across income groups, ethnicities, regions, and supply chains.

Nonetheless, the Government also recognises the potential pitfalls if digital economy efforts are not leveraged with the *rakyat* in mind. Hence, the Government introduces MyDIGITAL as a national initiative that symbolises the Government's aspiration to transform Malaysia into a digitally-enabled and technology-driven high income nation, and a regional lead in digital economy.

To realise the aspirations of MyDIGITAL, the Malaysia Digital Economy Blueprint is formulated to set the direction, outline the strategies, initiatives and targets to build the foundation to drive the growth of digital economy, including bridging the digital divide. The Blueprint will also ensure that the country is ready to embrace digital technology by seizing existing opportunities.

The National Digital Economy and 4IR Council forms the highest governance to decide policies, implement and monitor the digital economy strategies and initiatives. This outcome-driven governance structure adopts a whole-of-nation approach which involves partnerships between the *rakyat*, as well as the public and private sectors to realise the aspirations of MyDIGITAL.

It is my hope that MyDIGITAL prepares Malaysia to embrace the rapid digitalisation that has and will continue to provide reasonable standard of living for all the *rakyat*.

INTRODUCTION BY

THE DIRECTOR GENERAL OF ECONOMIC PLANNING UNIT, PRIME MINISTER'S DEPARTMENT

YBhg. Datuk Saiful Anuar bin Lebai Hussen

MyDIGITAL has set the direction of digital economy and built the foundation to drive digitalisation across the nation. To realise the aspirations of MyDIGITAL, the Malaysia Digital Economy Blueprint is formulated as the action plan to outline the efforts and initiatives which will be implemented up to 2030.

This Blueprint envisions Malaysia becoming the regional lead in digital economy and to achieve inclusive, responsible and sustainable socioeconomic development. Its three objectives are to encourage industry players to become creators, users and adopters of innovative business models, harness human capital to thrive in the digital economy and nurture an integrated ecosystem that allows society to embrace digital economy.

Six strategic thrusts have been identified, namely drive digital transformation in the public sector, boost economic competitiveness through digitalisation, build enabling digital infrastructure, build agile and competent digital talent, create an inclusive digital society, build trusted, secure and ethical digital environment. These strategic thrusts are supported by 22 strategies, 48 national initiatives and 28 sectoral initiatives. The implementation of this Blueprint is divided into three phases. Phase 1 starts from 2021 to 2022 which will strengthen the foundation of digital adoption. Phase 2 which covers 2023 to 2025 will drive inclusive digital transformation and Phase 3 covering 2026 to 2030 will make Malaysia a digital content and cyber security lead in the regional market.

Formation of MyDIGITAL - Malaysia Digital Economy Blueprint is formulated through a comprehensive study with active involvement of various stakeholders including the Ministries and their agencies, private sector, as well as civil society organisations (CSOs). A number of stakeholder engagement with industry players were conducted, including nearly 500 companies and over 50 industry associations and technology providers. The implementation of MyDIGITAL will benefit the *rakyat*, business and the government. The *rakyat* will enjoy improved standard of living and wellbeing, the business will be able to optimise resources and expand its operation and market, whereas the government will be able to provide more efficient and effective services.

To enable the implementation of MyDIGITAL to achieve the desired objectives, seamless cooperation with various parties will be continued. A whole-of-nation approach will be adopted to ensure that no one is left behind in the development of digital economy.

The Economic Planning Unit, Prime Minister's Department is appreciative and thankful to all participating parties on the accorded effort and commitments in producing the thorough and comprehensive MyDIGITAL - The Malaysia Digital Economy Blueprint which is of great importance for all Malaysians.

MyDIGITAL: QUICK FACTS

What is MyDIGITAL?

MyDIGITAL is a national initiative which symbolises the aspirations of the Government to successfully transform Malaysia into a **digitally-driven, high income nation and a regional leader in digital economy.** The Malaysia Digital Economy Blueprint spells out the efforts and initiatives to deliver the aspirations of MyDIGITAL. The Blueprint charts the trajectory of the digital economy's contribution to the Malaysian economy and builds the foundation to drive digitalisation across Malaysia including bridging the digital divide.

Why MyDIGITAL?

MyDIGITAL is designed to complement national development policies such as the Twelfth Malaysia Plan (RMKe-12) and *Wawasan Kemakmuran Bersama* 2030 (WKB 2030). Digital economy was identified as a key economic growth area (KEGA) in realising WKB 2030, to make Malaysia a country which is developing sustainably with fair economic distribution as well as equitable and inclusive growth.

The world economic growth is increasingly driven by digitalisation. Consumer behaviour has evolved to prioritise quick and convenient experiences which is powered by the internet and mobile phones. The COVID-19 pandemic amplifies the importance of the digital economy to ensure continuity in economic activities. The use of internet and technology advancement contributes to the rapid growth of data, which is the future commodity. Nevertheless, countries risk creating digital divide if the response to digitalisation is not managed well. We must embrace digitalisation, and seize opportunities arising from this trend for our wellbeing, as well as to stay relevant and competitive.

What is Digital Economy?

Digital economy is defined as economic and social activities that involve the production and use of digital technology by individuals, businesses, and government.

Where are we going - vision and outcomes?

With MyDIGITAL, Malaysia will be able to successfully transform into a **digitally-driven, high-income nation and a regional leader in the digital economy.** MyDIGITAL aspires to enable the *rakyat* to embrace digitalisation to improve their quality of life and standard of living.

The Malaysia Digital Economy Blueprint's vision is to be a regional leader in the digital economy and achieve **inclusive, responsible and sustainable socioeconomic development.**

The future Malaysia envisioned by MyDIGITAL will see the ***rakyat*** enjoy improved digital literacy, more high-paying jobs, improved social wellbeing and environmental sustainability; **businesses**, including micro, small and medium enterprises (MSMEs) that form the backbone of Malaysia's economy, will enjoy greater opportunities to build and expand locally, regionally and even globally through digital revenue streams, more opportunities to integrate between economic sectors, and to be more cost efficient through shared economy. A digitally-enabled **government** will provide integrated end-to-end online government services which are more efficient, effective and transparent. Malaysia in 2025 will advance to achieve the following 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 eCommerce
- Attract 2 unicorns (home-grown or foreign)
- RM70 billion investment in digitalisation
- Increase the number of start-ups to 5,000

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

How do we achieve MyDIGITAL?

MyDIGITAL sets out the consolidated initiatives and targeted outcomes as it pertains to the *rakyat*, business and the government, across three phases of implementation up to 2030. All these benefits will be delivered through 6 strategic thrusts, 22 strategies, 48 national initiatives and 28 sectoral initiatives via the Malaysia Digital Economy Blueprint.

The identified key thrusts and strategies in the Malaysia Digital Economy Blueprint are as follows:

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					

Phase 1 (2021 to 2022) **aims to accelerate adoption towards strengthening the digital foundation** needed for the rapid and smooth rollout of Phase 2 and Phase 3. In Phase 2 (2023-2025), the focus shifts to **driving digital transformation and inclusion** across the digital economy, emphasising inclusivity among the *rakyat* and all levels of businesses. Phase 3 (2026-2030) will chart the pathway for strong, sustainable growth in the decades to come, **positioning Malaysia to become a regional market producer for digital products and digital solutions provider.**

GOVERNANCE STRUCTURE

The Malaysia Digital Economy Blueprint embeds a delivery-driven governance framework and a whole-of-nation approach involving **partnerships between the *rakyat* (people), business (private sector)** and **the government (public sector)**.

In November 2020, Malaysia has set up the National Digital Economy and 4IR Council chaired by the Prime Minister to accelerate local capabilities in embracing digitalisation.

Every Malaysian has a role to play in accelerating digitalisation. The implementation of MyDIGITAL will be overseen by a governance framework which features:

1. A strategic change management office (SCMO) to drive changes on the ground across the nation, especially to inculcate a digital and innovative mindset amongst the *rakyat*;
2. A transparent and clear monitoring and evaluation mechanism to establish complete feedback loops, both top-down and bottom-up;
3. Six specific clusters chaired by Ministers and the Chief Secretary to the Government to improve overall efficiency, effectiveness, accountability and inter-ministry collaboration, each supported by subject matter experts of three key areas, namely regulation, cyber security and inclusivity and sustainability; and
4. Clear timelines to deliver measurable outcomes from each initiative.

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CHAPTER 1
INTRODUCTION

Digital economy presents tremendous new opportunities for Malaysia, on our journey to become a high income nation.

Innovation and knowledge are driving economic growth and competitiveness of a nation in the era of the Fourth Industrial Revolution (4IR). The 4IR, is a technological revolution characterised by the fusion of digital technologies, innovation and knowledge across socioeconomic activities. As a result, the 4IR catalyses the growth of digital economy in Malaysia.

The aspiration to advance the digital economy is in line with the *Wawasan Kemakmuran Bersama* 2030 (WKB 2030), which aims to provide a fair and equitable economic development among all levels of society by 2030. Digital economy is one of the Key Economic Growth Activities in WKB 2030 and Malaysia aims to be at the forefront in driving its growth.

The Malaysia Digital Economy Blueprint provides the way forward to fully realise the potential of the digital economy in achieving inclusive, responsible and sustainable socioeconomic development.

GLOBAL TRENDS

Today, the world is increasingly digital from the way societies interact, to how businesses operate and delivery of public services.

The immense speed and reach of digitalisation in recent years are unprecedented. The size of the digital economy in 2017 is estimated to range from 4.5% to 15.5% of world gross domestic product (GDP) worth US$3.6 trillion to US$12.3 trillion[1], illustrating its scale and significance.

Global internet users are estimated to grow to 4.5 billion people in 2020 from 3.4 billion people in 2016. In 2020 alone, 3.8 billion will be social media users, an increase of 1 billion users from 2017[2]. Internet usage growth will produce opportunities in many fields such as education, business and healthcare.

Many business are already embracing the digital economy. This is indicated by digital marketing spending exceeding offline marketing spending. For instance, in the United States of America, digital advertising made up 51% of total advertising spending between 2018 and 2019. The global eCommerce sales is expected to top US$4.2 trillion in 2020 and accumulate more than US$6.5 trillion by 2023[3].

Governments around the world have also been rapidly digitalising public services, as citizens demand increased efficiency and transparency. The efficiency gains from digitalisation have been recognised as reflected by the United Nations E-Government Development Index (UN-EGDI) where more than 84% of countries now offer online transactional services.

1. United Nations Conference on Trade and Development (UNCTAD) (2019), Digital Economy Report 2019
2. We Are Social Digital 2019 Report
3. Language Insight (2020), Global Trends in 2020

Consumers are moving towards digitalisation, especially through eCommerce and online banking, as they prefer quick and convenient transactions.

Electronic processing of orders, personal and banking information, and seamless access to information has made commerce easier, faster and scalable. A survey by PwC in 2019 in multi-country revealed that 31% of respondents purchase online weekly or more frequently than that, while 51% of respondents paid bills and invoices online in 2018[4].

Mobile payments are becoming a trend with the rapid growth of mobile phone users. This is most observable in emerging economies such as China, the Philippines, Thailand and Vietnam.

Data is the future commodity.

Approximately 90% of the digital data in the world were created within 2015 to 2017[5]. The digital lifestyle creates 2.5 quintillion bytes of data daily. The use of internet and the advancements of tehnologies have contributed to the rapid growth of data.

Digital economy has the potential to enhance economic competitiveness and dynamism.

Countries are investing in the digital economy to ensure they become more inclusive, efficient and innovative by leveraging digital technologies[6]. Countries such as Finland, Singapore and Thailand have launched long-term strategies and initiatives to reap the benefits of the digital economy, while safeguarding against its risks.

4. PwC (2019), Global Consumer Insights Survey 2019
5. IBM (2017), 10 Key Marketing Trends for 2017 and Ideas for Exceeding Customer Expectations
6. World Bank (2017),World Development Report 2016: Digital Dividends

SOUTHEAST ASIA IS PRIMED FOR GREATER GROWTH

Southeast Asia has the fourth largest internet market in the world and a growing eCommerce sector, with 14 unicorns[7]. Several countries have developed digital economy strategies for increased competitiveness and their achievements based on the Global Competitiveness Index (GCI) ranking, 2019[8], as shown in *Figure 1-1*. The success of the Malaysia Digital Economy Blueprint will elevate Malaysia to become the regional leader in the digital economy.

REGIONAL OPPORTUNITIES THAT CAN BE LEVERAGED[9]

- 4th largest internet market in the world with 360 million users
- eCommerce revenues to surpass US$25 billion by 2020
- 14 unicorns in Southeast Asia worth US$57 billion
- Southeast Asia's data centre market to reach US$3.5 billion by 2024, growing at 12.9%[10] per annum

Figure 1-1: GCI 2019 ranking and digital economy strategies by selected countries

#1 SINGAPORE
Smart Nation agenda
- Digital Economy Framework for Action
- Digital Government Blueprint
- Digital Readiness Blueprint
- National AI Strategy
- National Data Strategy

#40 THAILAND
- Digital Thailand

#50 INDONESIA
- Making Indonesia 4.0

#67 VIETNAM
- National Digital Transformation Programme by 2025

7. Unicorn is a start-up company with a value of over USD1billion
8. World Economic Forum (WEF) (2019), The Global Competitiveness Report 2019
9. The ASEAN Post, e-Conomy SEA 2019 Report
10. Cushman & Wakefield (2019), Data Centres in Southeast Asia Poised for Rapid Growth

The COVID-19 pandemic has accelerated the growth of the digital economy, thereby helping build economic resilience.

In many countries, economic activities during the lockdown period were driven by eCommerce, working from home and online food delivery services. Contact tracing applications helped contain the spread of the virus, while enabling business continuity.

Digitalisation in all facets of life also increase the risk of digital divide.

The lack of access to the internet and smart devices limit the opportunities to the underprivileged groups to quality education, healthcare services, employment and other benefits.

Inappropriate use of and vulnerabilities in digital technologies erode trust.

The World Economic Forum (WEF) has highlighted that data fraud and cyber attacks are among the top 10 risks to economic stability and social cohesion[11]. An increase in digital risks may affect people's trust and confidence in the digital economy.

The advancement of digital technology is rendering conventional skills irrelevant.

People with limited digital skills are disadvantaged as automation and technology cause job displacement. The WEF estimated that 75 million jobs globally may be displaced by 2022[12].

As digital technologies become more prevalent, the digital economy will become the foundation of the modern economy. Accelerating the digital economy is no longer an option but crucial for Malaysia.

11. WEF (2020), Global Risks Report 2020
12. WEF (2018), The Future of Jobs 2018

THE DIGITAL ECONOMY: OPPORTUNITIES FOR MALAYSIA

The impact of the digital economy is wide-ranging and transformative. It is able to influence society, business and government.

SOCIETY

Job opportunities for gig and digitally skilled workers

- The digital economy is creating new job opportunities, such as network specialists, mobile application developers, data scientists and community specialists in social networks[13]
- New business models have also created opportunities for people to participate as gig workers

BUSINESS

New business models offer new products and services

- Digital technologies have produced new business models that have disrupted traditional practices
- Physical products and services are becoming digital, such as books and DVDs in stores which are being replaced by e-books and online streaming
- Cloud computing allows businesses to procure services without having to own and maintain assets

Larger market catchment for commercial activities

- Online business provides channels to expand market reach domestically and globally
- Greater opportunities for local products to be marketed and sold via eCommerce

GOVERNMENT

Improved public service delivery

- Digital technologies enable governments to increase the scope and quality of public services
- e-Government portals improve the efficiency of service delivery, such as application for licences, tax filing and procurement processes

13. WEF (2018), The Future of Jobs Report 2018

DEFINITION OF DIGITAL ECONOMY

The definition of digital economy varies globally. Since the late 1990s, various entities including academic institutions and international organisations have conceptualised what digital economy is. While there is a lack of a universal definition, digital technologies remain as the defining feature of the digital economy.

Malaysia defines digital economy as:

> **"Economic and social activities that involve the production and use of digital technology by individuals, businesses and government."**

The digital economy definition for Malaysia originates from research, analysis and engagement with various key stakeholders from the public and private sectors. Works referenced are from the Organisation for Economic Cooperation and Development (OECD), the Group of 20 (G20), the Australian and the Canadian governments, among others.

THE DIGITAL ECONOMY AND 4IR

The digital economy is an outcome of the 4IR, where digital technologies are being widely adopted. According to the WEF, 4IR involves a fusion of technologies, blurring the lines between the physical, digital and biological domains[14], as shown in *Figure 1-2*. 4IR induces fundamental changes in the economy, similar to previous industrial revolutions.

The speed of current breakthroughs has no historical precedent. Moreover, it disrupts almost every industry in the world and transforms production, management and governance. The rapid adoption of digital technology from 4IR and the integration of data will greatly advance the digital economy.

Figure 1-2: Domains of 4IR technologies

Under the 4IR, digital technologies catalyse the digital economy as well as other economic areas, including the green and circular economies. As digital technology becomes more pervasive, the digital domain will eventually merge with both physical and biological domains. For instance, advanced materials utilise breakthrough technology, while embedding sensors in them. Gene sequencing is aided by a vast amount of biological information available in data banks. Digitalisation, which started in the Third Industrial Revolution, provides various growth opportunities, as shown in *Figure 1-3*.

14. WEF (2016), The Fourth Industrial Revolution: what it means, how to respond

Figure 1-3: Evolution of industries

To improve the country's readiness to embrace the digital economy, the government has developed the Malaysia Digital Economy Blueprint which will benefit the society, business and government.

Various ministries and agencies have stepped up the efforts to embed digitalisation in their agenda. More is needed for the nation to keep up with the pace of change, especially in technological advancements, labour market requirements, business model innovations and changing public expectations.

The Malaysia Digital Economy Blueprint charts the trajectory of digital economy contribution to the Malaysian economy and builds the foundation to drive digitalisation across the nation. The Blueprint has action plans to achieve Malaysia's vision to become a regional leader in the digital economy, as well as attain inclusive, responsible and sustainable socioeconomic development.

The Blueprint advocates for co-solutioning approaches with businesses and society to tackle economic, social and environmental challenges via innovative people-private-public partnerships, in order to achieve the intended outcomes, as shown in *Figure 1-4*.

As for the implementation of the Blueprint, the approach will include delivery-driven and Minister-led clusters in the governance structure. The aim is to increase clarity of focus areas, improve overall efficiency and accountability, which can ultimately facilitate change across the nation.

Figure 1-4: Intended outcome for the society, businesses and government

MALAYSIA DIGITAL ECONOMY BLUEPRINT

- Charts the growth trajectory of the digital economy
- Builds foundation to drive digitalisation across the nation, including bridging the digital divide

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

STRENGTHENING THE COUNTRY'S CAPABILITIES BY ADVANCING THE DIGITAL ECONOMY

The Malaysia Digital Economy Blueprint places as much emphasis on other fundamental components of digital economy as well as growing the economy through digital technology. These include a digital government[15], fit-for-purpose digital talents, a digitally inclusive society and a safe and secure digital environment. The Blueprint intends to continue the Malaysian government's efforts towards growing its digital economy.

The Blueprint charts the way forward that complements other policies by implementing a holistic approach to grow the digital economy. *Figure 1-5* highlights examples of new and enhanced national initiatives of the Malaysia Digital Economy Blueprint. The details of the national initiatives can be found in Chapter 3 *Accelerating the Digital Economy.*

The Blueprint has also highlighted four main sectors, namely agriculture, construction, manufacturing and services. Under services sector, 10 subsectors have been identified to create more value for the purpose of growing the digital economy.

15. Digital Government refers to the use of digital technologies, as an integrated part of governments' modernisation strategies, to create public value. It relies on a digital government ecosystem comprised of government actors, non-governmental organisations, businesses, citizens' associations and individuals which supports the production of and access to data, services and content through interactions with the government (OECD).

Figure 1-5: Highlights of new and enhanced national initiatives of the Malaysia Digital Economy Blueprint

Thrust	Drive digital transformation in the public sector	Boost economic competitiveness through digitalisation	Build enabling digital Infrastructure
Examples of new initiatives in the Malaysia Digital Economy Blueprint	• Transform the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) to better drive digitalisation and respond to rapidly evolving digital technologies	• Empowering local champions and stimulating investment through digital industry clusters	• Broadband to be mandated as basic infrastructure to ensure internet access for new developments
Examples of enhanced initiatives from the existing policies	• All federal and state level agencies to adopt cashless payments as the preferred method for more efficient transactions • Establish data-driven policy development and improve the data sharing environment to ensure data quality • Accelerate digital signature implementation across public sector online services to enable end-to-end digital transactions	• Streamline pro-competition measures with digital economy policy to promote fair competition	• Provide real-time broadband demand platform for effective planning and monitoring
Other highlights	• Includes both ecosystem and sectoral approach with government facilitating private sector innovation and application of technologies • Leverages cross platform and private sector for solutions		

Build agile and competent digital talent	Create inclusive digital society	Build trusted, secure and ethical digital environment
• Introduce "My Device" programme to ensure all students in Malaysia can access digital learning • Introduce digital packages to ensure all schools in Malaysia have good connectivity • Introduce "My Digital Teacher" programme to encourage teachers to fully embrace the use of digital tools and technology • Introduce the "GigUp" programme to equip gig workers with versatile skills	• Introduce *My Ikrar* programme to encourage volunteerism in conducting digital training • Establish centralised database to provide a comprehensive and up-to-date data on digital divide	• Reinforce cyber security outreach to all levels of society
• Introduce long-term social protection for gig workers	• Promote electronic payment onboarding programme for both merchants and consumers towards a cashless society	• Strengthen cross-border data transfer mechanisms and protection to facilitate seamless data flows
• Aligned to meet United Nations (UN) Sustainable Development Goals and WKB 2030 • Involves change management as a key focus area for implementation		

CHAPTER 2

THE DIGITAL ECONOMY LANDSCAPE

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

Figure 2-1: Connectivity, activity and eCommerce in the digital economy

Connectivity

90.1%
households have internet connections (2019)[16]

40th
in Speedtest Global Index with 81.46 Mbps fixed broadband speed (2020)[17]

135.4%
mobile cellular penetration (2019)[18]

93.1%
population use smartphone to access the internet (2018)[19]

70.2%
mobile subscriptions are 4G (2019)[20]

The digital divide between urban and rural

Household access to mobile broadband (2019)[21]

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)[22]

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

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

16. DOSM (2019), ICT Use and Access by Individuals and Households Survey Report 2019
17. Speedtest Global Index 2020
18. MCMC (2020), Communication & Multimedia Facts & Figures
19. MCMC, Internet User Survey 2019
20. MCMC (2020), Communication & Multimedia Facts & Figures
21. DOSM (2019), ICT Use and Access by Individuals and Households Survey Report 2019
22. DOSM (2019), ICT Use and Access by Individuals and Households Survey Report 2019

Activities

81%
Malaysians are active on social media (2020)[23]

66%
of internet users use mobile banking (2019)[26]

RM900 million
Estimated data centre market (2018)[29]

Top 5
social media penetration in Southeast Asia (2019)[24]

144
e-payment transactions per capita (2019)[27]

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

3rd in SEA
in ride-hailing utilisation (2019)[25]

90%
of government services are online[28]

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

eCommerce

~RM16 billion
eCommerce market value in Malaysia in 2019[30]

Food, travel, clothing, cosmetics, perfumes and sports – the most popular categories in eCommerce[31]

3rd in SEA
in eCommerce penetration among individuals[32]; 4 in 10 transactions involve cross-border spending[33]

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[34]

50% of MSMEs are using some form of data analytics, where 70% of them are referring to spreadsheet[35]

35% of MSMEs have deployed Internet of Things (IoT) solutions but mainly for building surveillance and fleet tracking[36]

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)[37]

23. Simon Kemp (2020), Digital 2020: Malaysia
24. We Are Social Digital 2019 report
25. We Are Social Digital 2019 report
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MALAYSIA'S DIGITAL ECONOMY JOURNEY

The Government's long-standing commitment in harnessing the potential of technology for country-wide transformation began back in 1996.

Establishing the Multimedia Super Corridor (MSC) was the first step in this transformation journey. MSC introduced high-technology business districts and special economic zones to transform Malaysia into an advanced nation by 2020.

Focus was given to building a knowledge-based society as well as leveraging on information and communication technology (ICT).

Since then, the government has implemented a wide range of policies and measures to spur technological and digital transformation in Malaysia, as shown in *Figure 2-2*.

Figure 2-2: Policy evolution in relation to ICT development

In 1996, Malaysia Digital Economy Corporation (MDEC)[38] was established to advise the government on ICT and multimedia development as well as facilitate MSC rollout across the nation in the early 2000s.

Efforts were intensified and focused on digitalisation, technology adoption and connectivity. The National Broadband Initiative was introduced in 2010 as the backbone for connectivity in accelerating internet usage in Malaysia. The National Policy on Science, Technology and Innovation, launched in 2013, sought to advance mainstream science, technology and innovation. The 11MP identified ICT as a necessary enabler for a knowledge-based economy.

Other initiatives included The National eCommerce Strategic Roadmap (launched in 2014) and the Malaysia Productivity Blueprint in 2017 to strengthen digitalisation among micro, small and medium enterprises (MSMEs) through eCommerce and innovative technology adoption. In 2017, the Digital Free Trade Zone was also launched to facilitate cross-border eCommerce and widen global market access for MSMEs.

Initiatives to modernise and improve data sharing in the public sector started since early 2010s, which include the Public Sector Big Data Analytics Project (initiated in 2015) and the Public Sector ICT Strategic Plan, 2016-2020. These were introduced to implement data analysis to gain insights and enhance public service delivery. In 2019, the Public Sector Modernisation and Digitisation Committee was formed as a governance mechanism for the implementation and monitoring of digitalisation initiatives.

The coverage, affordability and quality of the domestic broadband services were strengthened to unleash the full potential of digitalisation. The government established the National 5G Task Force in 2018 and the NFCP in 2019 to enhance digital infrastructure and accelerate digital economy transformation.

38. Formerly known as Multimedia Development Corporation in 1996

The government also undertook efforts to nurture future digital talent, as well as upskill and reskill the existing workforce. The Malaysia Education Blueprint highlighted the importance of ICT innovation in schools and emphasised strengthening the delivery of science, technology, engineering and mathematics (STEM) subjects across the education system. The Blueprint also devotes one of its 11 shifts identified to place importance on ICT skills to transform the education system.

Additionally, the government's efforts in growing the digital economy is to build businesses and industries, and society as a whole. The government has also supported vulnerable groups such as the B40 and women to ensure equal access and opportunity to participate in the digital economy. Among the related initiatives are eRezeki and Empowering Women in Cyber Risk Management Programme.

The government is formulating new policies and related initiatives to create a more conducive environment and provide opportunities for the continued growth of the digital economy. Some of the focus areas include cyber security, eCommerce, data sharing and emerging technologies.

The digital economy is also pivotal to mitigate the impact of COVID-19 and stimulate the economic growth as highlighted in the Short-Term Economic Recovery Plan (PENJANA). Some of its digital initiatives are shown in *Figure 2-3*.

Figure 2-3: Digital initiatives in PENJANA

Free 1GB internet to support e-learning and productivity activities

Digital discount vouchers to encourage online spending on products from local retailers

ePENJANA RM50 e-wallet credit value per eligible Malaysian

RM700 million grants and loans to eligible firms for digitalisation adoption or subscription

RM35 million Dana Kandungan Digital for animation and visual effects projects

RM70 million fund for eligible MSMEs to utilise eCommerce platforms

RM1.2 billion Dana PENJANA Nasional, an investment fund to benefit start-ups, and local private sector venture capital funds

Matching grant for gig economy platforms that contribute to gig workers' social protection

Malaysia's performance in key global indices have reflected the effectiveness of national policies in developing the digital economy. As shown in *Figure 2-4*, Malaysia is positioned in the top 50 in these indices. However, more effort is needed to elevate the country towards becoming a regional leader in digital economy and achieving inclusive, responsible and sustainable socioeconomic development.

Figure 2-4: Malaysia's performance in key global indices

IMD WORLD DIGITAL COMPETITIVENESS RANKING (FUTURE READINESS)[39]			
	2017	2018	2019
	14	11	14
	8	9	18
	4	8	7
	6	15	11
	45	49	50
	27 ▼	29 ▲	28

WEF GLOBAL COMPETITIVENESS INDEX[40] (ICT ADOPTION)[41]			
	2017	2018	2019
	27	22	21
	23	34	35
	16	16	13
	14	4	5
	61	64	62
	46 ▲	32 ▼	33

THE INCLUSIVE INTERNET INDEX 2020[42]			
	Overall	Availability	Readiness
	4	13	24
	7	18	13
	15	2	22
	39	29	69
	35	38	3

39. IMD World Competitiveness Center
40. World Economic Forum
41. The ICT Adoption pillar looks at mobile-cellular subscriptions, mobile-broadband subscriptions, fixed-broadband internet subscriptions, fibre internet subscriptions and internet users. This pillar was added in 2018, prior to which the indicators were included under the Technological Readiness pillar
42. The Economist Intelligence Unit

The Government's continuous efforts to develop Malaysia's digital economy, have accelerated the growth.

Past policies and initiatives have provided Malaysia with the right imperatives to start the digital economy growth journey. To drive the national agenda further, there needs to be a clear, comprehensive and concerted strategic response to expedite the growth of the digital economy.

Malaysia is in the position of strength.

Malaysia is the regional leader in alternative financing and is the first ASEAN country to create a regulatory framework for equity crowdfunding.

Malaysia has made great strides in achieving global standards on cyber security.

The Malaysia Cyber Security Strategy has coherent cyber security strategies which has improved national resilience in countering cyber attacks. To remain resilient, the regulatory policy mandates the review of regulations as necessary to remove outdated regulations that could hinder the growth of digitalisation.

The future looks promising. With more coordinated and calibrated efforts to bring out the best in the digital economy, while mitigating its detrimental effects, Malaysia is on the right track to become a regional leader for the digital economy.

CASE FOR CHANGE

The digital economy offers enormous opportunities that Malaysia has yet to be fully leveraged upon, due to several issues and challenges. These issues and challenges make the case for change in optimising digital economy opportunities. The case for change, which can be grouped into six areas, is as shown in *Figure 2-5*, form the basis to develop thrusts, strategies and initiatives of the Malaysia Digital Economy Blueprint.

Figure 2-5: Issues and challenges in advancing the digital economy

- **The need to have digital-first mindset and higher digital technology adoption across the public sector**
- **The need to build a more supportive ecosystem for local enterprises to digitalise**
- **The need for better deployment of quality broadband and digital technologies infrastructure**
- **The need to nurture a future-ready workforce**
- **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**

CHAPTER 3

ACCELERATING THE DIGITAL ECONOMY

The Malaysia Digital Economy Blueprint will enable Malaysia to fully benefit from the digital economy. This Blueprint is aligned with the WKB 2030, the 2030 Agenda for Sustainable Development and Twelfth Plan to ensure structured and coordinated efforts towards a common goal.

SHARED PROSPERITY VISION 2030

- Development for all
- Addressing wealth and income disparities
- A united, prosperous and dignified nation

2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

SUSTAINABLE DEVELOPMENT GOALS

- Ensure economic, social and technological progress occur in harmony with nature
- Ensure all *rakyat* enjoy prosperous and fulfilling lives in dignity and equality
- Ensure environmental sustainability to support the needs of present and future generations

TWELFTH MALAYSIA PLAN

- Resetting the economy
- Accelerating technology adoption and innovation
- Strengthening security, wellbeing and inclusivity
- Advancing environmental sustainability
- Strengthening the public sector

The Malaysia Digital Economy Blueprint is led by the following three guiding principles:

Inclusivity	to ensure nobody is left behind as a result of digitalisation.
Ethics	to ensure that data and digital tools are used in an ethical manner.
Trust	to ensure the growth of the digital economy, without compromising privacy and cyber security.

VISION

3 OBJECTIVES

6 THRUSTS

22 STRATEGIES

48 NATIONAL INITIATIVES

28 SECTORAL INITIATIVES

Figure 3-1: Malaysia Digital Economy Blueprint

MALAYSIA DIGITAL ECONOMY BLUEPRINT

VISION

To be a regional leader in the digital economy and achieve inclusive, responsible and sustainable socioeconomic development

OBJECTIVES

- Encourage industry players to become creators, users and adopters of innovative business models under the digital economy
- Harness human capital that is able to thrive in the digital economy
- Nurture an integrated ecosystem that allows society to adopt digital economy

6 THRUSTS

1 Drive digital transformation in the public sector

2 Boost economic competitiveness through digitalisation

3 Build enabling digital infrastructure

4 Build agile and competent digital talent

5 Create an inclusive digital society

6 Build trusted, secure and ethical digital environment

22 STRATEGIES

Thrust 1

- **S1:** Managing change for effective digital transition
- **S2:** Leveraging digital technology to improve workflow efficiency and productivity
- **S3:** Enhancing digital skill sets of civil servants
- **S4:** Utilising data to improve government services
- **S5:** Increasing scope and quality of online services for better user experience

Thrust 2

- **S1:** Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level
- **S2:** Accelerating industry development by enhancing local participation
- **S3:** Streamlining regulatory requirements to respond to digital economy and encourage innovative business models
- **S4:** Developing digital industry cluster and driving entrepreneurial activity

Thrust 3

- **S1:** Utilising regulatory measures to expand infrastructure coverage
- **S2:** Leveraging digitalisation to address legacy challenges
- **S3:** Enhancing digital technology infrastructure capabilities

Thrust 4

- **S1:** Integrating digital skills into education at primary and secondary level
- **S2:** Shifting focus of vocational and tertiary education from job-specific skills to competencies and adaptability
- **S3:** Reskilling current workforce with the digital skills needed to stay relevant
- **S4:** Ensuring that gig workers are protected and equipped with the right skills

Thrust 5

- **S1:** Increasing inclusivity of all Malaysians in digital activities
- **S2:** Empowering special target groups in the society to participate in the digital economy through entrepreneurship

Thrust 6

- **S1:** Strengthening safety and ethics in digital activities and transactions
- **S2:** Enhancing institutions commitment to personal data protection and privacy
- **S3:** Improving cross-border data transfer
- **S4:** Increasing cyber security uptake among businesses

48 NATIONAL INITIATIVES

28 SECTORAL INITIATIVES

VISION

The Malaysia Digital Economy Blueprint envisions that Malaysia will become the regional digital economy leader and achieve inclusive, responsible and sustainable socioeconomic development.

OBJECTIVES

The Malaysia Digital Economy Blueprint intends to fulfil three policy objectives:

1. **Encourage industry players to become creators, users and adopters of innovative business models under the digital economy.**
2. **Harness human capital that can thrive in the digital economy.**
3. **Nurture an integrated ecosystem that allows society to adopt the digital economy.**

This Blueprint will drive the digital economy to optimise digital possibilities across the society, businesses and government.

THRUSTS

The Malaysia Digital Economy Blueprint framework comprises six thrusts that supports the objectives and overall vision of the Blueprint. Each thrust guides the strategic direction of the Blueprint to address specific issues and cases for change. The following are the six thrusts:

1. **Drive digital transformation in the public sector.**
2. **Boost economic competitiveness through digitalisation.**
3. **Build enabling digital infrastructure.**
4. **Build agile and competent digital talent.**
5. **Create an inclusive digital society.**
6. **Build a trusted, secure and ethical digital environment.**

Role of stakeholders in achieving inclusive, responsible and sustainable socioeconomic development.

The roles of the public sector (government), private sector (businesses) and civil society organisations (society) are complementary to each other to achieve the vision and objectives set in the Blueprint. The government plays a key role as an enabler in transforming the country by setting a direction, facilitating the initiatives, as well as encouraging businesses and society to embrace digital technology. The private sector is encouraged to capitalise on digital platforms, ecosystems and marketplaces in their activities, and collaborate with the public sector and civil society organisations (CSOs) in new partnership models. It is imperative that the private sector leads a responsible and sustainable approach when delivering products and services, and co-create innovative solutions to create positive social and environmental impacts.

STRATEGIC THRUSTS AND NATIONAL INITIATIVES

THRUST 01

Drive digital transformation in the public sector

Thrust 1 aims to accelerate the transformation of the public sector into a digital government. This will be achieved by leveraging digital technologies, data and digital intelligence, enhancing the digital skill sets of civil servants and increasing the quality of online services.

The goal is for the Government to adopt and use digital technologies and data to modernise the public service and become more citizen-centric in its approaches. With strong leadership to drive digital transformation, the government is striving to be agile and proactive as well as digital by design, data-driven and user-driven.

It is imperative for the Government to keep up with global digital transformation. The challenge is not merely introducing digital technologies to public administration, but also integrating the usage into efficient and improved public service delivery.

The government has invested in digital technologies and tools and introduced national plans to modernise and advance the digital economy. Despite the initiatives, adoption rates remain low due to the practice of traditional ways. There is an urgent need to change the culture of the civil service and encourage embracing a digital-first mindset.

The emergence of new technologies, data analytics and a digital environment changes expectations towards the ability of the Government in delivering public services.

THRUST 01 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

OBJECTIVE

- Position MAMPU as the sole agency to drive public sector digital transformation
- Review and streamline MAMPU's roles and functions to drive the adoption and execution of the national digital agenda in the public sector
- Strengthen MAMPU's capacity and capability to facilitate effective change management

DESCRIPTION OF INITIATIVE

- This initiative aims to strengthen MAMPU's role in designing nationwide systems for both Federal and state governments, to better drive digitalisation
- MAMPU to drive new capabilities and existing strategies in ministries and agencies that go beyond IT implementation, including embracing change
- MAMPU to be granted a greater mandate in enforcement and to act as an advisor, project member or subject matter expert on nationwide digital-related projects

OUTCOME

- **The sole agency responsible for pushing forward the public sector digital transformation agenda**
- **Ministries and agencies have new capabilities to harness 4IR and digital technologies towards becoming an agile and data-driven government**

Timeline: Phase 1 (2021 - 2022)

LEAD	TARGET
MAMPU	Tranformation of MAMPU with augmented roles and functions by 2022

S1: Managing change for effective digital transition

2 Chief Information Officer in every ministry to take on the Chief Digital Officer role to create a digitally-driven culture

OBJECTIVE

- Create roles and responsibilities for Chief Digital Officer (CDO)
- Create a digital-driven culture in the public sector that practices a principle-based approach

DESCRIPTION OF INITIATIVE

- This initiative aims to transform all current Chief Information Officers in ministries and agencies to assume the role of Chief Digital Officer (CDO) at top management level
- The CDO will lead in areas related to digital technologies, data infrastructure, data governance, data analytics, digital literacy, open data and smart technology
- All CDOs will report implementation and progress to the Chief Secretary to the Government (KSN) as the chair of the Government Cluster under The National Digital Economy and 4IR Council

OUTCOME

- **A digitally-driven government with greater openness to innovative ideas and approaches**
- **Shift towards a principle-based approach for better decision making and outcomes**

Timeline: Phase 1 (2021 - 2022)

LEAD	TARGET
MAMPU and Public Service Department Malaysia (JPA)	Every ministry and agency to have CDO reporting to Government Cluster

THRUST 01 Drive Digital Transformation in the Public Sector

S2: Leveraging digital technology to improve workflow efficiency and productivity

3 Increase adoption of digital technologies and utilise digital tools to improve efficiency and productivity

OBJECTIVE

- Adopt digital technologies to improve efficiency and boost productivity
- Maximise the usage of digital tools available across the public sector

DESCRIPTION OF INITIATIVE

- This initiative aspires to increase technology adoption to enable the transformation of government operating models. For example, AI is used to fight cyber attacks, chatbots for customer service and blockchain to streamline medical records
- This initiative will introduce the mandatory usage of selected existing digital tools. It will also provide mobility tools and implement new management and work culture approaches

OUTCOME

- Adoption of digital technologies to enable greater effectiveness, efficiency and innovation
- Improved workplace productivity and digital service delivery

Timeline: Phase 1 to Phase 2 (2021 - 2025)

LEAD	TARGET
MAMPU	• 80% end-to-end online government services • Ranked 12th in the Online Services Index by 2025

S2: Leveraging digital technology to improve workflow efficiency and productivity

4 Introduce a Digital Accelerator in every ministry to create in-house experts to identify and increase digital technology usage

OBJECTIVE

- Create a dedicated role as well as in-house experts to identify and increase digital technology usage in everyday work processes for improved work efficiency and output
- Increase government agility to take advantage of technological advancements towards better decision making and policy formulation

DESCRIPTION OF INITIATIVE

- This initiative aims to introduce Digital Accelerators to drive the adoption of digital technologies within organisations
- This role requires cross-functional capabilities, with knowledge of daily operations and deep familiarity with digital technologies

OUTCOME

- Coherent use of digital technologies across policy areas and levels of government
- Increase agility to take leverage on technological advancements towards better decision making and policy formulation
- Development of a roadmap for high-impact digital technologies usage in the government

Timeline: Phase 1 (2021 - 2022)

LEAD	TARGET
MAMPU	Appointment of Digital Accelerator in every ministry by 2022

THRUST 01 Drive Digital Transformation in the Public Sector

S2: Leveraging digital technology to improve workflow efficiency and productivity

5 Introduce the Digital-First programme to enhance Federal and state levels usage of cloud services

OBJECTIVE:

- Shift towards a digital-first mindset through business process reengineering
- Empower work mobility by maximising digital storage usage

DESCRIPTION OF INITIATIVE

- This initiative focuses on two main areas, namely reducing the usage of physical storage files by shifting towards the cloud first strategy and adopting a paperless culture in everyday work
- This initiative will also identify and adopt necessary technologies to enable paper-free workflows and transactions

OUTCOME

- Optimisation of government resources and automation of tasks through establishment of digital workflows
- Improved accessibility to data and information through centralisation of data storage in the cloud
- Improvement of remote work approach among civil servants

Timeline: Phase 1 (2021 - 2022)

LEAD	TARGET
MAMPU	• 80% of cloud storage across the government in 2022 • Circular on remote work approach by 2021

S3: Enhancing digital skill sets of civil servants

6 Develop "Digital Transformers" to groom highly skilled civil servants comprising technical experts and professional ICT-related talent

OBJECTIVE

- Equip talent with the right skill sets in specific areas
- Create a pool of highly skilled civil servants who will steer digital transformation
- Reduce dependency on external vendors or experts in technical services

DESCRIPTION OF INITIATIVE

- This initiative aims to develop two pools of in-house talent, namely specialised technical talent including data scientists, cyber security experts and programmers as well as subject matter experts with skills to plan and execute a strategic digital agenda such as employees with experience in economy, supply-chain management, business development and planning
- This includes creating attractive career paths to retain talent
- This initiative will also include long-term plans for continuous training and upskilling in technical areas

OUTCOME

- Empowerment of ICT-related talent with skills to steer digital transformation
- Decrease dependency on external vendors or professional services

Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MAMPU and JPA	250 certified trainers under Digital Government Competency and Capability Readiness programme by 2025

THRUST 01 Drive Digital Transformation in the Public Sector

S3: Enhancing digital skill sets of civil servants

7 Develop and upskill civil servants with digital skills, across all grades and schemes

OBJECTIVE

Equip civil servants across all grades and schemes including top management, with digital skills

DESCRIPTION OF INITIATIVE

- This initiative aims to upskill civil servants through well planned digital training modules and continuous training. Training will be mandatory
- This is also to establish a digital development cluster at the National Institute of Public Administration (INTAN)

OUTCOME

- Civil servants with a holistic set of digital skills to enhance service delivery
- Improved public training institution capabilities

Timeline: Phase 1 to Phase 2 (2021 - 2025)

LEAD	TARGET
JPA	• Establishment of a digital development cluster by 2022 • 100% civil servants to possess digital literacy in 2025

S4: Utilising data to improve government services

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

OBJECTIVE

- Maximise data usage for improved policy analysis and development as well as optimise machine-readable data
- Provide more services in MyGDX for data utilisation and facilitate data sharing by agencies

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance evidence-based policy development
- Establish guidelines for open data to ensure data is open by default, accessible, reliable, reusable, comprehensive, comparable and interoperable
- Expand MyGDX service catalogues to include all potential ministries and agencies to facilitate more data sharing
- Ministries and agencies to produce their own open Application Programming Interface (API) to share real-time and aggregated data

OUTCOME

- Establishment of open data guidelines to produce data with transparency, integrity and accountability
- Improvement of Malaysia's position in open data global rankings

Timeline: Phase 1 to Phase 2 (2021 - 2025)

LEAD	TARGET
MAMPU	• 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

THRUST 01 Drive Digital Transformation in the Public Sector

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

9 All federal and state level agencies to adopt cashless payments as the preferred method for more efficient transactions

OBJECTIVE

Increase e-payment adoption for all government services in ensuring efficient, transparent and timely transactions

DESCRIPTION OF INITIATIVE

- This initiative aims to ensure that government agencies at all levels implement e-payment as the preferred transaction method
- Increase the number of point-of-sale terminals, implement a unified payment interface (UPI) and digital wallet
- Promote the benefits of cashless transactions to gain public trust
- Adopt international standards to improve interoperability and ensure all payment systems are reliable, resilient and secure

OUTCOME

- Increased access to convenient payment options at all government agencies
- More efficient and transparent public service delivery
- Reliable and comprehensive data set for evidence-based policy development

Timeline: Phase 1 (2021 - 2022)

LEAD	TARGET
Ministry of Finance (MOF)	All ministries and agencies to provide cashless payment option by 2022

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

10 Enhance Government Online Services Gateway (GOS Gateway) with integrated systems for greater ease of doing business

OBJECTIVE

- Enhance one stop MyGovernment portal by incorporating services offered by state governments and selected private companies
- Reduce fragmentation of services, thereby increasing public sector efficiency and productivity

DESCRIPTION OF INITIATIVE

- This initiative aims to expand the GOS Gateway to integrate with state governments and selected private companies' systems in phases
- Integration will be undertaken in phases, as follows:
  - Phase 1: focusing on services within the Federal government
  - Phase 2: focusing on services between the Federal and state governments
  - Phase 3: focusing on selected private company services

OUTCOME

- Improved ease of doing business and optimisation of resources
- Efficient public service delivery

Timeline: Phase 2 to Phase 3 (2023-2030)

LEAD	TARGET
MAMPU	85% end-to-end online government services to be integrated

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

11 Accelerate National Digital Identity (NDI) implementation to improve security, service delivery and convenience

OBJECTIVE

- Accelerate the realisation of digital governance
- Promote inclusivity, reduce cost of access to services and enhance service delivery to the *rakyat*

DESCRIPTION OF INITIATIVE

- This initiative aims to implement the NDI as a trusted digital identification for individual verification in obtaining services from multiple service providers
- Ensure online transactions are performed in a flexible and secure digital environment
- The NDI will complement MyKad as proof of citizenship

OUTCOME

- Secure online transactions
- Reduction in identity fraud
- Lower administrative costs and more efficient service delivery

Timeline: Phase 1 to Phase 2 (2021 – 2025)

LEAD	TARGET
Ministry of Home Affairs (KDN)	Full implementation of the NDI by 2025

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

12 Accelerate digital signature implementation across public sector online services to enable end-to-end digital transactions

OBJECTIVE

Enable end-to-end digital transactions through secured authentication of the signatory to fulfil requirements of confidentiality, identity authentication and integrity of information involving public sector online services

DESCRIPTION OF INITIATIVE

- The initiative aims to accelerate the adoption of digital signatures across the public sector
- Ensure civil servants thoroughly understand and master digital signature processes for smooth implementation
- Implement suitable security measures to avoid cyber fraud

OUTCOME

- Enhanced security and trust with a tamper-evident seal as the unique identifying "fingerprint" data, which is permanently embedded within a document
- Saved costs and time in managing documents

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Ministry of Communications and Multimedia Malaysia (KKMM)	Full adoption of digital signature in the public sector by 2025

THRUST 02

Boost economic competitiveness through digitalisation

Thrust 2 aims to accelerate digital adoption, empower digital stewardship as well as shape new value pools and emerging business models. As the economy transforms and digital ecosystems integrate, businesses that embrace technology and build on the digital economy will generate value and thrive.

The aspiration is to have industries in Malaysia fuelled by innovative ideas and models, where economic growth will be led by local champions with focus on productivity and improving livelihoods. This will create new industry players for a more vibrant and innovative economy.

Globalisation and the shift in consumer priorities have enhanced the needs and expectations of digitalisation. It is forecasted that in the next decade, 60% to 70% of new values will be created on digitally-enabled platforms, making digital economy the next economic revolution.

Malaysia has consistently strived to become an innovation-driven economy. This has resulted in Malaysia being ranked 2nd for Global Competitiveness among ASEAN Countries by the WEF Global Competitiveness report and 5th for Digital Readiness among Asian Economies in UNCTAD's Business-to-Customer (B2C) eCommerce Index 2018.

However, digital adoption among industries is still in its infancy, with industrial development showing slow progression and being less aggressive than neighbouring countries. These will need to be addressed for more resilient and sustainable economic growth.

The mass adoption of digital technologies and establishment of connected digital services are the main accelerators of economic competitiveness in advanced economies.

THRUST 02 Boost economic competitiveness through digitalisation

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

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

OBJECTIVE

Offer a mechanism that handholds businesses at different stages of digitalisation, towards digital excellence

DESCRIPTION OF INITIATIVE

- This initiative aims to introduce a "Digital Compass" to all businesses, which is a tailored technological roadmap specific to different sectors and businesses of different digital maturity levels
- The Compass will provide businesses a step-by-step guide on the digital solutions available for different stages of their growth
- The initiative include awareness programme on IP benefits to facilitate and encourage enterprises to include IP registration in the digitalisation journey

OUTCOME

- Creation of digitally savvy businesses that operate successfully in managing end-to-end service provisions and driving industry-changing innovation
- Businesses that dominate market niche through digitalisation

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Ministry of Entrepreneur Development and Cooperatives (MEDAC) and KKMM	More than 800,000 MSMEs adopt digitalisation

S2: Accelerating industry development by enhancing local participation

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

OBJECTIVE

Grow local digital champions capable of solving social and environmental issues, ultimately becoming regional players

DESCRIPTION OF INITIATIVE

- This initiative aims to introduce a national innovation challenge, which allows experimentation as well as collaborative, heterogeneous and hybrid networks, as a tool to solve social and environmental issues
- This will be organised in four phases, from identification of the issue to the commercialisation of solutions

OUTCOME

- Creation of locally-grown regional champions
- Improve ranking in the Global Innovation Index

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Ministry of Science, Technology and Innovation (MOSTI)	Contribute to the creation of at least 5,000 start-ups by 2025

THRUST 02 Boost economic competitiveness through digitalisation

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

3 Nurture a dynamic IP system for the digital economy to encourage innovations

OBJECTIVE

Strengthen IP regulatory framework and enforcement, as well as enhance awareness to foster a dynamic and conducive environment for local innovators to increase IP ownership

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance existing IP framework and laws to cater to the digital economy. The four types of IP that need improvement are patents, trademarks, copyrights and trade secrets
- Programmes will involve efforts in:
  - Understanding the need for different ruling and processes of the digital economy including ruling for products and services that are digitally generated and transacted
  - Reviewing and updating existing laws
  - Implementing a digital IP enforcement strategy
- Enhancing awareness on digital/online branding protection using a Malaysian domain, which is .MY

OUTCOME

- More secure and conducive IP ecosystem
- Increased local IP registration and ownership
- Higher flow of innovation into Malaysia to spur IP development

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
Ministry of Domestic Trade and Consumer Affairs (KPDNHEP) and KKMM	• Reviewed IP laws by 2023 • More than 50,000 IP ownership by 2030

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

4 Adopt an agile regulatory approach to meet the needs of digital economy businesses

OBJECTIVE

- Establish a conducive regulatory environment for digital economy development
- Review regulatory requirements to facilitate innovation and expand coverage to include new technologies and business models

DESCRIPTION OF INITIATIVE

- This initiative aims to identify priority regulations to review and update
- Developing code of conduct (for regulators) to encourage industry involvement in regulatory designs for the digital economy
- Identifying areas of involvement in developing a typology of relevant regulatory approaches to capitalise on opportunities and mitigate the challenges of digital transformation
- Expanding regulatory sandboxes

OUTCOME

- Increased market entry for new businesses
- More opportunities to transform industry structure

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Malaysia Productivity Corporation (MPC)	Contribute to the creation of at least 5,000 start-ups by 2025

THRUST 02 Boost economic competitiveness through digitalisation

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

5 Streamline pro-competition measures with digital economy policy to promote fair competition

OBJECTIVE

Ensure efficient and effective implementation as well as enforcement of the competition policies and laws in order to achieve level playing field in the digital economy

DESCRIPTION OF INITIATIVE

- This initiative aims to review existing policy and competition laws to facilitate responsible digital economy growth
- The regulatory framework should be agile and accompanied by continuous effort in enhancing the relevant institutional capacity related to the enforcement of competition law

OUTCOME

- Growth of the digital economy that is conducive to fair competition while safeguarding consumers

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Malaysia Competition Commission (MyCC)	• Reviewed competition laws by 2023 • Competition impact assessment framework included in the regulatory impact assessment process in the formulation of laws and policies

S4: Developing digital industry cluster and driving entrepreneurial activity

6 Empowering local champions and stimulating investment through digital industry clusters

OBJECTIVE

Elevate Malaysia as the regional champion of digital industry clusters to spur the economic development

DESCRIPTION OF INITIATIVE

- This initiative aims to develop value proposition for the establishment of potential digital industry clusters. This includes digital content and cyber security
- Promoting the digital industry clusters to establish their presence internationally and raise the industry cluster's profiles in foreign markets through promotional drives, including participation in trade missions and international trade fairs, internationally and locally
- Developing a single window platform with comprehensive database for investment opportunities and increasing ease of doing business within the clusters
- Enhancement of incentive packages to attract targeted investors in the digital industry clusters

OUTCOME

- Establishment of digital industry clusters as a regional hub
- More local champions become regional players

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
Ministry of International Trade and Industry (MITI) and KKMM	Five unicorns (homegrown or foreign) in the key digital industry clusters operationally headquartered in Malaysia

THRUST 02 Boost economic competitiveness through digitalisation

S4: Developing digital industry cluster and driving entrepreneurial activity

7 Incorporate comprehensive digital economy elements in international trade arrangements and cooperation

OBJECTIVE

Establish digital economy arrangements and cooperation to support the productivity and competitiveness of businesses, particularly the MSMEs in regional and global markets

DESCRIPTION OF INITIATIVE

- This initiative aims to accelerate digital integration actions at the regional level, to facilitate cross-border trade and investment and lower the operating barriers for businesses, particularly the MSMEs
- Influencing the process at multilateral and plurilateral levels, to establish a global framework and obligations that enable digital trade in a non-discriminatory and less restrictive manner
- Implementing and exploring enhanced trade arrangements and framework of cooperation in strategic areas of digital economy at the bilateral and regional levels

OUTCOME

- Creation of a digital trade environment with improved stability, lowered risks and reduced compliance costs

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
MITI	Key and strategic digital economy elements incorporated in all international trade arrangements and cooperation pursued by Malaysia

S4: Developing digital industry cluster and driving entrepreneurial activity

8 Introduce fit-for-purpose tax framework to capture revenue from the digital economy growth

OBJECTIVE

Ensure the income generated in Malaysia from cross-border digital activities is taxed in Malaysia

DESCRIPTION OF INITIATIVE

- This initiative aims to develop frameworks and guidelines relevant to Malaysia on taxing businesses deriving income from the digital economy in the country
- The development of the framework and guideline will be based on international best practices

OUTCOME

- Clear tax framework in promoting digital economy
- Broaden tax base for Government
- Facilitation of fair competition for local businesses

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOF	Introduction of tax frameworks and guidelines based on international best practices by 2025

THRUST 03

Build enabling digital infrastructure

Thrust 3 aims to provide access to extensive and high quality digital infrastructure, which will enable people to participate in the digital economy. The government and businesses will be able to operate with ease and innovate continuously through a conducive digital environment provided by seamless and extensive digital connectivity.

Digital infrastructures focused under this thrust comprise broadband, data centres and submarine cable landing stations. Such infrastructures allow for the generation, flow, exchange, consumption and storage of data.

Malaysia has made great strides in improving the state and coverage of such foundational infrastructure. Regulatory reforms through the Mandatory Standard on Access Pricing (MSAP) have reduced broadband prices while increasing broadband speed. In 2019, Malaysia launched the NFCP 2019-2023, to improve broadband quality and coverage. This plan was reviewed in 2020 and is known as Pelan Jalinan Digital Negara (JENDELA) with improved targets.

However, broadband access is not universal and the speed still lags, especially in rural areas. An enabling environment is required in enhancing the development of digital infrastructures, including high-end data centres.

Building enabling digital infrastructures is fundamental in advancing the digital economy.

THRUST 03 Build enabling digital infrastructure

S1: Utilising regulatory measures to expand infrastructure coverage

1 Review laws and regulations to improve provision for digital infrastructure

OBJECTIVE

Ensure supportive regulatory framework for telcos to accelerate digital infrastructure rollout

DESCRIPTION OF INITIATIVE

- This initiative aims to review, improve and streamline all relevant federal and state legislations and regulations regarding digital infrastructure development

OUTCOME

- More supportive regulatory environment for the telcos
- Expedited rollout of broadband infrastructure

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
KKMM	All federal and state legislations and regulations relating to digital infrastructure development are reviewed by 2025

S1: Utilising regulatory measures to expand infrastructure coverage

2 Broadband to be mandated as basic infrastructure to ensure internet access for new developments

OBJECTIVE

Ensure internet access is an essential service mandated by relevant laws for new developments

DESCRIPTION OF INITIATIVE

- This initiative aims to make amendments to several laws at federal and state levels to include broadband as a basic infrastructure for new developments including residential and commercial buildings
- Among the laws to be reviewed are the Local Government Act and the Street 1976, Drainage and Building Act 1974 (Act 133)
- Encourage wider adoption and enforcement of the amended Uniform Building By-Law 1984 (UBBL)
- Streamline terminology concerning internet connectivity in the federal and state acts

OUTCOME

- Broadband as a basic utility

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
KKMM	Legislations relating to broadband as a basic utility at the federal and state levels are streamlined by 2025

THRUST 03 Build enabling digital infrastructure

S2: Leveraging digitalisation to address legacy challenges

3 Expand the adoption of OSC 3.0 Plus Online to more local authorities to speed up approval process in deploying broadband infrastructure

OBJECTIVE

- Shorten the time taken by relevant regulatory authorities to provide approvals and permits for broadband infrastructure projects
- Allow information sharing among regulatory authorities to avoid the duplication of submissions

DESCRIPTION OF INITIATIVE

- This initiative aims to increase the adoption of OSC 3.0 Plus Online by all local authorities and relevant technical agencies
- Priority to be given to localities with industrial areas to spur economic activity

OUTCOME

- Cost and time efficient regulatory compliance process
- Faster and increased rollout of broadband infrastructure projects

Timeline: Phase 1 (2021-2022)

LEAD	TARGET
Ministry of Housing and Local Government (KPKT)	All local authorities to use OSC 3.0 Plus Online

S2: Leveraging digitalisation to address legacy challenges

4 Provide real-time broadband demand platform for effective planning and monitoring

OBJECTIVE

- Enhance real-time broadband demand intelligence for better network capacity planning and management
- Provide transparent coverage information of broadband services

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance the real-time data-driven platform on broadband demand for planning and monitoring purposes, hosted and operated by Malaysian Communications and Multimedia Commission
- This initiative will be undertaken in phases to ensure coordinated measures in addressing coverage and speed gaps for fixed and mobile services

OUTCOME

- High quality broadband services

Timeline: Phase 1 (2021-2022)

LEAD	TARGET
KKMM	Real-time broadband platform providing accurate information on nationwide demand for coverage

THRUST 03 Build enabling digital infrastructure

S3: Enhancing digital technology infrastructure capabilities

5 Boost capabilities of domestic data centre companies to provide high-end cloud computing services

OBJECTIVE

Provide enabling environment for local data centre companies to specialise in high-end cloud computing services

DESCRIPTION OF INITIATIVE

- This initiative aims to establish a whole of industry transformation programme to increase local data centre companies capabilities in offering high-end cloud computing services
- Enable the local data centre companies to offer customised cloud services through partnership with international key technology providers

OUTCOME

- Regional champion for cloud computing services
- Increased capabilities and innovation of local data centre companies

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
KKMM and MITI	Local data centre industry revenue at RM3.6 billion by 2025

S3: Enhancing digital technology infrastructure capabilities

6 Attract more international submarine cables landing in Malaysia to expand global connectivity

OBJECTIVE

Provide enabling environment to facilitate higher investment in digital economy

DESCRIPTION OF INITIATIVE

- This initiative aims to provide the necessary infrastructure to improve broadband services and promote establishment of more high-end data centres
- Develop a clear strategic plan in collaboration with industry, among others to:
  - introduce the policy to promote investment in submarine cables landing station;
  - expand domestic data demand and creation through introduction of various data heavy services;
  - attract international data company to set up data hosting facilities; and
  - identify and expand on local niche areas (example, Islamic finance and digital content)

OUTCOME

- Higher investment in digital economy
- More reliable and fast internet connection

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
KKMM	Malaysia to have the highest number of submarine cables landing in Southeast Asia by 2025

THRUST 04

Build agile and competent digital talent

Thrust 4 aims to ensure that digitalisation is successfully embedded and adopted within talent development, at various levels of education and also in the upskilling and reskilling of the existing workforce. Current and future workforces will be well-equipped with digital skills to thrive in the evolving digital economy. Gig workers will be given opportunities to upskill, reskill and provided with adequate support in the effort to have fit-for-purpose talent.

Malaysia began deploying a revised ICT curriculum for primary schools and a new computer science curriculum for secondary schools in 2017. There are also various existing initiatives in place to cultivate digital skills in schools. These initiatives have evolved from focusing on basic infrastructure to deploying innovative ways of informal learning over the years.

However, a gap exists in the use of technology and introduction of computational thinking in the school curriculum, insufficient bandwidth and shortage of ICT facilities. These form barriers preventing students and teachers from embracing digital technologies. As vocational and tertiary education focuses heavily on job-specific skills, less focus is given to competencies and adaptability in using technology. This has contributed to job mismatch in the labour market.

The success of local businesses will depend on the skills and capabilities of the workforce. As job requirements change and new jobs are created, the key challenge is for Malaysians to acquire the necessary skills to remain relevant. Efforts to upskill and reskill the workforce are still lacking despite the growing demand for technical skills.

Building future-ready digital talents who are well-equipped with the skills required to thrive in an evolving job market.

THRUST 04 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

OBJECTIVE

Enable all school students to have access to digital learning

DESCRIPTION OF INITIATIVE

- This initiative aims to introduce the "My Device" programme where all students will have access to devices, through various mechanisms, depending on their household income levels
- The programme will be setup through public-private-people partnerships, where students will be provided with data plans and devices with strict security settings. This is to ensure the effective use and control of the device

OUTCOME

- Enhanced learning experience
- Digitally well-equipped students
- Narrowed digital divide

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Ministry of Education (MOE)	Each school student to have access to individual digital device

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

2 Introduce digital packages to ensure all schools in Malaysia have good connectivity

OBJECTIVE

Equip all schools with good internet connectivity to facilitate digital learning

DESCRIPTION OF INITIATIVE

- This initiative aims to provide good internet connectivity in schools to facilitate online learning through the introduction of special digital packages
- Identifying financing models with contributions from the private sector and CSOs to support the implementation of this initiative

OUTCOME

- Students have equal access to internet connectivity to embrace digital learning

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOE	All schools have access to internet connectivity

THRUST 04 Build agile and competent digital talent

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

3 Adopt digital technology through collaboration with the private sector to enhance overall learning environment

OBJECTIVE

Provide a platform for managing online teaching and learning in primary schools

DESCRIPTION OF INITIATIVE

- This initiative aims to accelerate the adoption of digital technologies within the current curriculum and existing subjects to create a more interactive learning environment and instil confidence in students on digital technologies from a young age
- The current Digital Educational Learning Initiative Malaysia (DELIMa) will be expanded in terms of content and coverage to be more effective
- The digital technologies can also be leveraged to improve the quality of STEM education in secondary schools

OUTCOME

- Digital technology is embedded in the delivery of education
- Development of creative thinking among students

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOE	All schools adopt digital solutions and technology in the delivery of education by 2025

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

4 All schools in Malaysia to be Digital Maker Schools

OBJECTIVE

- Equip students with creative thinking and digital innovation skills
- Transform students from consumers to producers of technology

DESCRIPTION OF INITIATIVE

- This initiative aims to expand the number of Champion Schools across the nation
- This programme will equip students and teachers with the necessary digital skills and tools to cultivate adaptability skills and innovative mindsets through activities and competitions
- My Digital Maker Champion Schools will require support from industry players in the forms of financing, co-development of concepts, and training

OUTCOME

- Students with ability to adapt, create and innovate with digital technology

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
MOE and KKMM	2,500 My Digital Maker Champion Schools by 2030

THRUST 04 Build agile and competent digital talent

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

5 Introduce "My Digital Teacher" programme to encourage teachers to fully embrace the use of digital tools and technology

OBJECTIVE

Upskill teachers to embrace technology in teaching and learning, as well as administrative work

DESCRIPTION OF INITIATIVE

- This initiative aims to roll out a professional development programme for teachers, who will be equipped with the knowledge and digital tools to improve teaching skills and work organisation
- Co-creating a tech-based innovative solution with tech companies to enhance teachers' work organisation relating to learning plan development, teaching aids and reporting

OUTCOME

- Higher technology utilisation rate among teachers
- Enhanced capacities and capabilities of teachers in utilising digital technology
- Reduction in time spent on administrative work

Timeline: Phase 2 (2023-2025)

LEAD	TARGET
MOE	All teachers undergone My Digital Teacher training programme by 2025

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

6 Expand an open access knowledge bank to house teaching materials for educators

OBJECTIVE

Create a knowledge bank for education materials in digital format

DESCRIPTION OF INITIATIVE

- This initiative aims to develop a knowledge bank that contains materials where their quality and standards fulfil MOE and Ministry of Higher Education (MOHE) guidelines
- The content include a list of teaching material in e-format such as workbooks and practice papers as well as teaching sources such as videos and podcasts
- The knowledge bank will have a seamless interface to enhance user experience

OUTCOME

- Educators to have access to teaching material through open access knowledge bank

Timeline: Phase 2 (2023-2025)

LEAD	TARGET
MOE and MOHE	Establishment of an open access knowledge bank by 2025

THRUST 04 Build agile and competent digital talent

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

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

OBJECTIVE

Strengthen the role of MBOT in establishing the performance standards of industry players in their partnership with HEIs

DESCRIPTION OF INITIATIVE

- This initiative aims to align curriculum design of HEIs and in-demand digital skills of the industries
- This will also leverage existing partnerships between Government, academia and industry, through (MBOT) and its Technology Expert Panels (TEP)
- This initiatives also provides opportunities for participating industry players to assess future workforce capabilities, and increase students agility in becoming quality workforce

OUTCOME

- Improved coordination and interaction between industry players, HEIs and students
- Improved capability of students to be future work-ready

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOSTI and MOHE	All HEIs in Malaysia are strategic partners in the MBOT

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

8 Launch the "Social Entrepreneurs Circle" programme to equip social entrepreneurs with digital skills and provide a networking platform

OBJECTIVE

Ensure that social entrepreneurs can access support related to networking, mentoring and coaching for them to grow

DESCRIPTION OF INITIATIVE

- This initiative aims to offer mentoring, coaching, networking and digital skills development designed to help social entrepreneurs grow through digitalisation and increase their footprint and impact
- The programme involves access to webinars hosted by international social entrepreneurs, online training on digital technologies to improve their business processes, as well as monthly networking sessions
- Upskilling programmes will include training in data science and cyber security as well as mentoring from established digital companies and start-ups
- An inclusive business model, which is commercially viable, bankable and for-profit will be introduced to provide systemic solutions to problems faced by vulnerable groups

OUTCOME

- The growth of social entrepreneurs in Malaysia
- Malaysia as a regional hub for social entrepreneurs

Timeline: Phase 2 (2023-2025)

LEAD	TARGET
MEDAC	All social entrepreneur will become members in the Social Entrepreneur Circle by 2025

THRUST 04 Build agile and competent digital talent

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

9 Introduce a training programme for senior managers to improve digital skills

OBJECTIVE

Encourage senior management to acquire relevant digital skills and embrace the digital culture at the workplace

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance the digital technology skills of senior management
- MOHR via HRDF will drive this programme, which can be carried out through online platform (e-learns) in collaboration with technology providers

OUTCOME

- Senior managers who are equipped with digital skills
- Narrow the digital gap among employees

Timeline: Phase 2 (2023-2025)

LEAD	TARGET
MOHR	50% of senior management in Government-linked companies (GLCs), multinational companies (MNCs) and MSMEs to participate in the programme by 2025

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

10 Streamline reskilling initiatives by various government agencies onto a centralised portal for ease of access

OBJECTIVE

Give employers and employees access to information on skills training and job availability through a centralised portal

DESCRIPTION OF INITIATIVE

- This initiative aims to centralise information on all existing upskilling and reskilling training initiatives by different agencies onto the MYFutureJobs portal
- All training programmes will be streamlined to optimise resources and enhance effectiveness
- Companies will be able to access customisable training programmes, while employees will be able to explore career opportunities through this portal

OUTCOME

- Establishment of a single point of reference for employers and employees

Timeline: Phase 2 to Phase 3 (2023-2030)

LEAD	TARGET
MOHR	MYFutureJobs as a single platform for upskilling and reskilling programme for all employers and employees in Malaysia by 2030

THRUST 04 Build agile and competent digital talent

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

11 Introduce professional upskilling programmes related to the digital economy

OBJECTIVE

Develop and upskill the workforce's digital skills in areas such as cyber security, content creation, data analytics, system integration, AI and other relevant professional skills

DESCRIPTION OF INITIATIVE

- This initiatives aims to upskill the workforce in specific digital skills for professional development and allows professionals such as data scientists, data analysts, cyber security workers and AI specialists to share knowledge, expertise and skill sets
- Increase awareness on the Global Accredited Cybersecurity Education (ACE) Certification Scheme which defines the competencies expected of skilled cyber security personnel. The certification supports the continuous development of individuals in mitigating cyber-related threats, as well as grooms effective cyber defenders
- Upskilling programmes for digital skills will be undertaken either by local universities, or through online masterclasses. Training carried out for workers by companies will be eligible for tax deduction

OUTCOME

- Workforce equipped with specific skills in digital economy that allows them to grow in tandem with the nation's digital economy
- Enhanced cyber security capabilities and standards among companies

Timeline: Phase 2 (2023-2025)

LEAD	TARGET
MOHR	Develop professional digital talent including 20,000 cyber security knowledge workers and 30,000 data professionals by 2025

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

12 Introduce the "GigUp" programme to equip gig workers with versatile skills

OBJECTIVE

Ensure that gig workers from various educational backgrounds are given the skills to improve their employability and mitigate the precarity of their job

DESCRIPTION OF INITIATIVE

- This initiative aims to encourage companies that employ gig workers, including technology companies, start-ups and even larger companies, to invest in training gig workers
- Training will be subsidised via HRDF on existing online platforms such as Coursera, Udemy, edX and Codeacademy

OUTCOME

- Enhanced skills and improved employability of gig workers in sharing economy

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOHR	All gig workers in sharing economy participate in the "GigUp" programme by 2025

THRUST 04 Build agile and competent digital talent

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

13 Introduce long-term social protection for gig workers

OBJECTIVE

Ensure that gig workers are supported with long-term social protection

DESCRIPTION OF INITIATIVE

- This initiative aims to expand current gig worker benefits offered by PENJANA to protect full-time gig workers or those that work at least a minimum number of hours for various platforms
- A feasibility study will be undertaken to develop appropriate social protection schemes and map out the implementation plan for gig workers
- Indirect incentives will be provided to employers that contribute to SOCSO and EPF for their gig workers

OUTCOME

- **Provision of social protection for gig workers**

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOF and MOHR	All gig workers to have social protection

THRUST 05

Create an inclusive digital society

Thrust 5 aims to narrow the digital divide in ensuring every individual participates and reaps the benefits of the digital economy. One of the key outcomes of the Blueprint is to achieve an inclusive digital society, with no one is left behind in line with the WKB 2030. Ethical behaviour in using digital technology will be given priority in the effort to create a digitally responsible society.

Thus, it is important to ensure that all segments of the population are provided equal opportunities to be equipped with the necessary knowledge and skill sets to thrive in the digital economy.

There are numerous government initiatives and programmes, including eRezeki, eUsahawan, *Pusat Internet* and digital social responsibility to improve society's wellbeing. As part of the economic recovery initiative, ePenjana credit was introduced to encourage e-wallet usage among the *rakyat*.

However, a digital gap still remains across the dimensions of income, strata, age, gender and skill sets. If not properly addressed, this will impede efforts to achieve an inclusive digital society.

In a digitally inclusive society, individuals will be competent at adopting and integrating digital technologies into their lives.

THRUST 05 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

OBJECTIVE

- Ensure digital inclusion by improving digital literacy and empowering vulnerable groups to actively participate in the digital economy
- Encourage volunteerism towards creating positive social impact

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance efforts to increase digital literacy and skills among rural residents through collaborations with the private sector, academia and CSOs
- Encourage volunteers to assist local communities in acquiring skills and adopting digital technologies

OUTCOME

- **Improved digital literacy and skills among society members**
- **Enhanced participation of the private sector, academia and CSOs in assisting the society to adopt digital technologies**

Timeline: Phase 1 (2021-2022)

LEAD	TARGET
KKMM	Implementation of 222 *My Ikrar* programmes until 2022

THRUST 05 Create an inclusive digital society

S1: Increasing inclusivity of all Malaysians in digital activities

2 Establish centralised database to provide a comprehensive and up-to-date data on digital divide

OBJECTIVE

- Integrate relevant data on vulnerable groups into a single database to measure digital inclusion levels in Malaysia
- Minimise exclusion and inclusion errors through comprehensive and up-to-date information on the digital divide

DESCRIPTION OF INITIATIVE

- This initiative aims to facilitate the development of data-driven policies to bridge the digital divide
- Develop the Digital Inclusion Index Malaysia (DIIM), which quantifies digital inclusion at the national level

OUTCOME

- More accurate identification of exclusion and inclusion errors in the provision of assistance
- More targeted policies towards achieving a digitally inclusive society

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
Implementation Coordination Unit (ICU)	• A single database on vulnerable groups established by 2022 • DIIM developed by 2023

S1: Increasing inclusivity of all Malaysians in digital activities

3 Promote electronic payment onboarding programme for both merchants and consumers towards a cashless society

OBJECTIVE

- Expand electronic payments adoption by small merchants
- Increase electronic payments usage by consumers

DESCRIPTION OF INITIATIVE

- This initiative aims to incentivise both merchants and consumers to go cashless
- Implement electronic payments on boarding programme by expanding the adoption of electronic payments among merchants, especially MSMEs through subsidising point of sale system setup costs and exempting e-payments transaction costs
- Incentivise the public to increase the usage of electronic payments

OUTCOME

- Cashless environment with reduced reliance on cash
- Widely used electronic payments in the society

Timeline: Phase 1 (2021-2022)

LEAD	TARGET
Bank Negara Malaysia (BNM)	• 400 electronic payment transaction made per capita by 2022 • 36 EFTPOS terminals per 1,000 inhabitant by 2022

THRUST 05 Create an inclusive digital society

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

4 Providing an online platform to facilitate better access for vulnerable groups

OBJECTIVE

- Enhance digital technology adoption to empower vulnerable groups
- Improve access to assistance or information, thus facilitating entrepreneurship among vulnerable groups through an online platform

DESCRIPTION OF INITIATIVE

- This initiative aims to provide a one-stop online platform through integration of existing platforms, designated for vulnerable groups such as the B40, women and people with disabilities to obtain information and resources to grow their online businesses
- The platform provides information and services such as:
  - Dissemination of online business-related information including business registration procedures, regulations, business opportunities, existing government assistance programmes and financial resources
  - Provision of entrepreneurial and business management training, advice, counselling and consultancy as well as mentoring and coaching
  - Financial literacy programmes
  - Webinars and networking opportunities to acquire knowledge about starting or growing an online business

OUTCOME

- **Vulnerable groups are provided with opportunities to become digital entrepreneurs in uplifting their socioeconomic status**

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MEDAC	875,000 MSMEs onboard eCommerce by 2025

THRUST 06

Build trusted, secure and ethical digital environment

Thrust 6 aims to create a digital environment that is trusted, secure and ethical. This will enable businesses and society to fully reap the benefits of digital services without compromising safety, data security, privacy, reliability and ethical standards. The environment requires the development of a holistic ecosystem, such as a regulatory framework and cyber security capabilities to prevent threats or breaches that can disrupt the full function of the digital economy.

Building a trusted, secure and ethical digital environment does not just cover hardware, but also people and institutions.

As Malaysia embraces the digital economy, cyber security threats have increased as people generate, exchange and use data more extensively. Malaysia has taken proactive steps to strengthen its cyber security ecosystem, with strengths in its institutional framework. This is evident by the ITU Global Cybersecurity Index, where Malaysia has been consistently ranked among the top 10 countries in the world for cyber security commitment since 2014 and was second in the Asia Pacific behind Singapore in 2018.

Challenges remain with regards to the awareness levels among the public and businesses, especially MSMEs, on the importance of being secure in cyber space. Public trust on the integrity of organisations processing and use of personal data remains weak. Ethical concerns have also arisen with the usage of digital technologies. Additionally, financial constraints faced by MSMEs prevent the wider adoption of cyber security tools.

THRUST 06 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

OBJECTIVE

Raise cyber security awareness and ensure that all Malaysians have the skills and knowledge to combat cyber attacks and cyber crimes

DESCRIPTION OF INITIATIVE

- This initiative aims to develop a multi-pronged and sustained cyber security awareness programme through People-Private-Public Partnership approach. Programmes include a variety of activities to ensure efforts are concerted and continuous such as:
  - Enhance activities during the cyber security month to heighten awareness
  - Promote CyberSafe website to access cyber security information
  - Develop guideline for users of digital and online applications, including consumer rights on commercial transactions
  - Encourage the private sector to include cyber security training in human capital development
- Strengthen law enforcement and governance for cyber security

OUTCOME

- **Enhanced public confidence to go digital**

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
Majlis Keselamatan Negara (MKN) and KKMM	• 75% of Malaysians are aware of cyber security and cyber crime • 60% of cyber crime cases can be prosecuted

S1: Strengthening safety and ethics in digital activities and transactions

2 Enhance education module to promote netiquette in schools

OBJECTIVE

Equip students with the knowledge and skills on correct or acceptable ways of using the internet

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance the MOE's National Cyber Security Awareness Module by making netiquette a main component of the module
- This enhanced module will be included as part of the national education curriculum

OUTCOME

- **Students with the appropriate netiquette**

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MOE and KKMM	Implementation of netiquette modules as part of national education curriculum by 2025

S2: Enhancing institutions commitment to personal data protection and privacy

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

OBJECTIVE

Ensure that laws, practices and enforcement regarding personal data protection and privacy are comprehensive, fit-for-purpose and timely

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance the nation data protection and related regulatory framework to be more holistic, covering more than just industry
- Review of existing laws, including Personal Data Protection Act (PDPA), Digital Signature Act, Cyber Security Act and Official Secrets Act
- Enhance the capacity and capability of related enforcement agencies, including through standards and certification

OUTCOME

- Individual rights are well protected through better governance of personal data and data privacy
- Enhanced public and business trust in the management of personal data and data privacy

Timeline: Phase 1 to Phase 3 (2021-2030)

LEAD	TARGET
KKMM	• PDPA reviewed by 2025 • Other relevant laws reviewed by 2030

S3: Improving cross-border data transfer

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

OBJECTIVE

Ensure cross-border data flows for commerce are seamless, safe and secure

DESCRIPTION OF INITIATIVE

- This initiative aims to enhance cross-border data transfer mechanisms in both PDPA and international trade policies
- Streamline mechanisms related to data usage, storage and transfers

OUTCOME

- Seamless and secure cross-border data flows
- Better trust in the protection of personal data

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
KKMM and MITI	• 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

THRUST 06 Build trusted, secure and ethical digital environment

S4: Increasing cyber security uptake among businesses

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

OBJECTIVE

Increase cyber security especially among the MSMEs, to ensure a safe digital ecosystem

DESCRIPTION OF INITIATIVE

- This initiative aims to increase cyber security awareness and adoption among companies
- Enhance existing incentives, such as SME Digitalisation Grant and SME Technology Transformation Fund (STTF), in encouraging MSMEs to invest in cyber security products and services
- Encourage companies to leverage existing initiatives such as Information Security Governance, Risk & Compliance Health Check Assessment and cyber security empowerment programmes for MSMEs to determine the level of cyber security and investment needed

OUTCOME

- Trusted and secure business ecosystem
- Reduced risk of business losses due to cyber threats and cyber attacks

Timeline: Phase 1 to Phase 2 (2021-2025)

LEAD	TARGET
MEDAC and KKMM	70% of companies adopt cyber security measures by 2025

ROADMAP TO THE FUTURE AND TARGETED OUTCOMES

The implementation of proposed initiatives are envisioned to help achieve the outcomes of each phase and ultimately, the aspirations of the Blueprint. There are three phases in the implementation roadmap to achieve the long-term aspirations.

Phase 1: 2021 - 2022

ACCELERATE ADOPTION TOWARDS STRENGTHENING THE DIGITIAL 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 DIGITAL 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

PHASE 1: Accelerate adoption towards strengthening the digital foundation

T1 | Data and digital intelligence at the heart of the digital economy in Malaysia, with the government leading this effort

OUTCOMES

- MAMPU as one sole agency responsible for pushing forward the public sector digital transformation agenda
- Ministries and agencies have new capabilities to harness 4IR and digital technologies towards becoming an agile and data-driven government
- Optimisation of government resources and automation of tasks through establishment of digital workflows
- Improved accessibility to data and information through centralisation of data storage in the cloud
- Improvement of remote work approach among civil servants
- A digitally-driven government with greater openness to innovative ideas and approaches
- Shift towards a principle-based approach for better decision making and improved outcomes
- Coherent use of digital technologies across policy areas and levels of government
- Increased agility to take advantage of technological advancement towards better decision making and policy formulation
- Development of a roadmap for high-impact digital technologies usage in the government
- Increased access to convenient payment options at all government agencies
- More efficient and transparent public service delivery
- Reliable and comprehensive data set for evidence-based policy development

TARGETS

- Tranformation of MAMPU with augmented roles and functions by 2022
- 80% of cloud storage across the government in 2022
- Circular on remote work approach by 2021
- Every ministry and agency to have CDO reporting to Government Cluster
- Appointment of Digital Accelerator in every ministry by 2022
- All ministries and agencies to provide cashless payment option by 2022
- Establishment of a digital development cluster by 2022

T3 Conducive regulatory framework that can expedite digital infrastructure development

OUTCOMES

- Cost and time efficient regulatory compliance process
- Faster and increased rollout of broadband infrastructure projects
- High quality broadband services

TARGETS

- All local authorities in Malaysia to use OSC 3.0 Plus Online
- Real-time broadband platform providing accurate information on nationwide demand for coverage

T5 Increased confidence to use technology across all levels of society

OUTCOMES

- Improved digital literacy and skills among society members
- Enhanced participation of the private sector, academia and CSOs in assisting the society to adopt digital technologies
- Cashless environment with reduced reliance on cash
- Widely used electronic payments in the society

TARGETS

- Implementation of 222 *My Ikrar* programmes until 2022
- 400 electronic payment transactions made per capita by 2022
- 36 EFTPOS terminals per 1,000 inhabitants by 2022

PHASE 2: Drive digital transformation and inclusion

T1

A government with extensive use of e-government services, where technologies and data are used effectively to benefit the public and businesses

OUTCOMES

- Adoption of digital technologies to enable effectiveness, efficiency and innovation
- Improved workplace productivity and digital service delivery
- Empowerment of ICT-related talent with skills to steer digital transformation
- Decrease dependency on external vendors or professional services
- Establishment of open data guidelines with data that is transparent, has integrity and accountability
- Improvement of Malaysia's position in the open data global ranking
- Secure online transactions
- Reduction identity fraud
- Lower administrative costs and more efficient service delivery
- Enhanced security and trust with a tamper-evident seal as the unique identifying 'fingerprint' data, which is permanently embedded within a document
- Saved costs and time in managing documents

TARGETS

- 100% civil servants to be digitally literate by 2025
- 80% end-to-end online government services
- Ranked 12th in the Online Services Index by 2025
- 250 certified trainers under Digital Government Competency and Capability Readiness programme by 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
- Full implementation of the NDI by 2025
- Full adoption of digital signature by the public sector by 2025

T2

Local champions with the potential to become regional leaders are identified and groomed

OUTCOMES

- Creation of digitally-savvy businesses that operate successfully in managing end-to-end service provisions and driving industry changing innovations
- Businesses that dominate market niche through digitalisation
- Creation of locally-grown regional champions
- Improve ranking in the Global Innovation Index
- Increased market entry for new businesses
- More opportunities to transform industry structure
- Growth of the digital economy that is conducive to fair competition while safeguarding consumers
- Clear tax framework in promoting digital economy
- Broaden tax base for government
- Facilitation of fair competition for local businesses

TARGETS

- More than 800,000 MSMEs adopt digitalisation
- Tax frameworks and guidelines based on international best practices
- Contribute to the creation of at least 5,000 start-ups by 2025
- Reviewed competition laws by 2023
- Reviewed IP laws by 2023
- Competition impact assessment framework included in the regulatory impact assessment process in the formulation of laws and policies
- Introduction of tax framework and guidelines based on international best practices by 2025

T3 Faster and increased rollout of broadband infrastructure projects

OUTCOMES

- More supportive regulatory environment for the telcos
- Expedite rollout of broadband infrastructure
- Broadband as basic utility
- Regional champion for cloud computing services
- Increased capabilities and innovation of local data centre companies
- Higher investment in the digital economy
- More reliable and faster internet connections

TARGETS

- 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
- Local data centre industry revenue at RM3.6 billion by 2025
- Malaysia to have the highest number of submarine cable landing in Southeast Asia by 2025

T4 Competent and agile workforce that adds greater values to the economic sectors as well as to the communities they live in

OUTCOMES

- Enhanced learning experience
- Digitally well-equipped students
- Narrowed digital divide
- Students have equal access to internet connectivity to embrace digital learning
- Digital technology is embedded in the delivery of education
- Development of creative thinking among students
- Higher technology utilisation rate among teachers
- Enhanced capacities and capabilities of teachers in utilising digital technology
- Reduction in time spent on administrative work
- Educators to have access to teaching material through open access knowledge bank
- Improved coordination and interaction between industry players, HEIs and students
- Improved capability of students to be future work-ready
- The growth of social entrepreneurs in Malaysia
- Malaysia as a regional hub for social entrepreneurs
- Senior managers are equipped with digital skills
- Narrow the digital gap among employees
- Workforce equipped with specific skills in digital economy that allows them to grow in tandem with the nations's digital economy
- Enhanced cyber secutity capabilities and standards among companies
- Provision of social protection for gig workers

TARGETS

- Each school students 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
- All teachers undergone My Digital Teacher training programme by 2025
- Establishment of an open access knowledge bank by 2025
- All HEIs in Malaysia are strategic partners in the MBOT
- All social entrepreneurs will become members of the Social Entrepreneur Circle by 2025
- 50% of senior management in Government-linked companies (GLCs), multinational (MNCs) and MSMEs to participate in the programme by 2025
- All gig workers to have social protection
- Growth in number of professional skills related to the digital economy such as 20,000 cyber security knowledge workers and 30,000 data professionals by 2025

T4 Agile regulations for the gig economy while ensuring unhindered business innovation

OUTCOMES

- Enhanced skills and improved employability of gig workers in sharing economy

TARGETS

- All gig workers in sharing economy participate in the "GigUp" programme by 2025

T5 Equitable access to opportunities to uplift socioeconomic status

OUTCOMES

- More accurate identification of exclusion and inclusion errors in the provision of assistance
- More targeted policies to achieve a digitally inclusive society
- Vulnerable groups are provided the opportunity to become digital entrepreneurs in uplifting their socioeconomic status

TARGETS

- A single database on vulnerable group established by 2022
- DIIM develop by 2023
- 875,000 MSMEs onboard eCommerce by 2025

T6 Increased trust in the management personal data and data privacy agencies

OUTCOMES

- Students with the appropriate netiquette
- Seamless and secure cross-border data flows
- Better trust in the protection of personal data
- Trusted and secure business ecosystem
- Reduced risk of business losses due to cyber threats and cyber attacks

TARGETS

- Implementation of netiquette modules as part of national education curriculum by 2025
- 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
- PDPA reviewed by 2025
- 70% of companies to adopt cyber security measures by 2025

PHASE 3: Become a regional market producer for digital products and digital solutions provider

T1

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

OUTCOMES

- Civil servants with holistic set of digital skills to enhance service delivery
- Improved public training institutions capabilities
- Improved ease of doing business and optimisation of resources
- Efficient public service delivery

TARGETS

- 85% end-to-end online government services to be integrated

T2

High ease of doing business, where the government provides a highly conducive environment for businesses to start and operate

OUTCOMES

- More secure and conducive IP ecosystem
- Increased local IP registration and ownership
- Higher flow of innovation into Malaysia to spur IP development
- Establishment of digital industry clusters as a regional hub
- More local champions will become regional players
- Creation of digital trade environment with improved stability, lowered risks and reduced compliance costs

TARGETS

- More than 50,000 IP ownerships by 2030
- 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

T4

A high quality pool of digital talent and inclusive digital society

OUTCOMES

- Students with ability to adapt, create and innovate with digital technology
- Establishment of a single point of reference for employers and employees

TARGETS

- 2,500 My Digital Maker Champion Schools by 2030
- MYFutureJobs as a single platform for upskilling and reskilling programme for all employers and employees in Malaysia by 2030

T6 Increased cyber security awareness among businesses and society members

OUTCOMES

- Enhanced public confidence to go digital
- Individual rights are well protected through better governance of personal data and data privacy
- Enhanced public and business trust in the management of personal data and data privacy

TARGETS

- 75% of Malaysians are aware of cyber security and cyber crime
- 60% of cyber crime cases can be prosecuted
- Other relevant laws reviewed by 2030

SECTORAL INITIATIVES

Besides national initiatives, sectoral-focus initiatives are recommended to grow the digital economy. These initiatives enable the 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.

Four sectors are covered, namely agriculture, construction, manufacturing and services. Under the services sector, 10 subsectors are identified.

A total of 28 initiatives were developed, which fall under three themes, namely digital adoption, data sharing and analytics as well as digital skills.

Digital adoption

Initiatives to enhance the acceleration of digital adoption. These include digitalising business and processes, as well as platform onboarding

Data sharing and analytics

Initiatives to increase data sharing and usage of data through an open API system and centralised data access

Digital skills

Initiatives to cultivate the right digital skillset specific to sectors, such as through training programmes

4 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

	INITIATIVES	OUTCOMES	TARGETS
AGRICULTURE	Promote smart farming adoption through a centralised open data platform amongst industry players	Increased digital adoption and generated new business models by accessing the open data platform and identifying specific cost-cutting measures	1. To have machine-readable data, with access through API 2. Contribute to creation of at least 5,000 start-ups by 2025 3. Increase in digital adoption rate across businesses
AGRICULTURE	Create more local digital platforms to enable access to 'Farm to Table' digital marketplace	Increased participation in digital marketplace and sales of farmers	1. Increase in digital adoption rate across businesses 2. Contribute to creation of at least 5,000 start-ups by 2025 3. Contribute to 30% uplift in labour productivity across all sectors
CONSTRUCTION	Increase and accelerate the construction industry's adoption of digital technologies throughout the construction project lifecycle	Increased the adoption of digital technologies in the construction industry	1. To have machine-readable data, with access through API 2. Contribute to creation of at least 5,000 start-ups by 2025 3. Increase in digital adoption rate across businesses
CONSTRUCTION	Expand HRDF claimable programme to cover new and CIDB organised digital skills training programmes	More workers adept at relevant digital technologies	1. Contribute to 30% uplift in labour productivity across all sectors 2. Top 15 under the Skills pillar in the WEF Global Competitiveness Index
CONSTRUCTION	Intensify research, development, commercialisation and innovation (R&D&C&I) in emerging digital technologies in centres of excellence for sustainable construction	Increased the number of buildings and infrastructure which feature emerging digital technologies and sustainability	1. Top 20 under the Knowledge and Technology pillar in the Global Innovation Index 2. Contribute to 30% uplift in labour productivity across all sectors
CONSTRUCTION	Introduce an enhanced mechanism to accelerate the roll out of smart cities	Increased partnership between cities and industry and technology partners to roll out smart cities	1. Contribute to creation of at least 5,000 start-ups by 2025 2. At least five smart cities established by 2025

	INITIATIVES	OUTCOMES	TARGETS
MANUFACTURING	Establish technology labs and collaborative platforms, especially through public-private partnerships (PPPs)	More access for local companies, especially MSMEs, to key enabling Industry 4.0 technologies and partners as well as stronger collaboration in deploying new technologies across value chains	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors 3. Top 20 under the Knowledge and Technology pillar in the Global Innovation Index
	Develop customised national development programmes for specific manufacturing subsectors	Increase in overall labour productivity and skills of workers to mitigate potential job losses	1. Contribute to 30% uplift in labour productivity across all sectors 2. Top 15 under the Skills pillar in the WEF Global Competitiveness Index 3. Contribute to creation of at least 5,000 start-ups by 2025
SERVICES	**TOURISM**		
	Establish a comprehensive tourism database with open access for industry stakeholders	Accurate and informed decision making by stakeholders and increased innovation in the tourism ecosystem	1. To have machine-readable data, with access through API 2. Contribute to creation of at least 5,000 start-ups by 2025
	Strengthen digital marketing activities to enable wider connection and engagement with customers	More competitive tourism industry	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors
	ARTS, ENTERTAINMENT AND RECREATION		
	Enable virtual access to cultural products and services via high-resolution image technologies such as virtual reality and augmented reality	High quality experience of local arts, entertainment and culture are accessible globally	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors
	Encourage the usage of digital technologies in amusement and recreation parks	Seamless and enhanced visitor experience in local amusement and recreation parks	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors 3. Reduce in number of incidents in amusement and recreation parks

	INITIATIVES	OUTCOMES	TARGETS
SERVICES	**ARTS, ENTERTAINMENT AND RECREATION**		
	Nurture and upskill digital talent in the creative industry	Malaysia as a regional hub for digital content	1. 200 IP creation in digital content by 2025 2. 8% average annual growth rate of digital content export from 2021 to 2025 3. Top 20 under the Knowledge and Technology pillar in the Global Innovation Index
	EDUCATION		
	Encourage textbook and workbook publishers to explore digitalisation and move to e-book and interactive formats	Continous improvement of digital materials for education with lower cost	1. All students in Malaysia to have access to online learning 2. Increase in digital adoption rate across businesses
	Empower education centres and educators to adopt digital technologies to carry out online teaching	Enhanced access to online education	1. All students in Malaysia to have access to online learning 2. All educators in Malaysia to use digital tools and technology
	Develop and establish technical guidelines for data usage in education sector	Effective custodianship of students' data while ensuring compliance with regulations, as well as safeguarding all users	1. To have machine-readable data, with access through API 2. To have a secure and reliable education ecosystem
	FINANCIAL AND INSURANCE		
	Establish Fintech Innovation Accelerator Programme to accelerate the growth of fintech start-ups	Malaysia as a fintech gateway to the ASEAN market and become an ideal regional centre for early stage fintech start-ups	1. Increase in digital adoption rate across businesses 2. Contribute to creation of at least 5,000 start-ups by 2025

	INITIATIVES	OUTCOMES	TARGETS
SERVICES	**HEALTHCARE**		
	Develop a framework for rapid adoption of technology for healthcare-related products	Shortened approval process for healthcare product commercialisation	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors
	Accelerating the usage of the Malaysia Health Data Warehouse (MyHDW) with the inclusion of blockchain	More efficient policy making and leaner operations for healthcare service delivery	1. To have machine-readable data, with access through API 2. Contribute to 30% uplift in labour productivity across all sectors
	INFORMATION AND COMMUNICATION TECHNOLOGY		
	Promote open access, and a centralised database, supported by sector-specific technical guide on personal data protection	Accurate and informed decision making by stakeholders and increased innovation in the ICT industry	1. To have machine-readable data, with access through API 2. Sector-specific technical guide on personal data protection established
	PROFESSIONAL SERVICES		
	Establish a sectoral-based digital skills development scheme to equip the current workforce in the professional services sector	The workforce is well equipped with the necessary knowledge and skills to meet the changing industry demands	1. Contribute to 30% uplift in labour productivity across all sectors 2. Top 15 under Skills pillar in WEF Global Competitiveness Index
	Establish sector-specific digital toolkit to facilitate the improvement of digital capabilities of professional services firms	Improved productivity and efficiency of businesses which are at the early stage of digitalisation	1. Increase in digital adoption rate across businesses 2. Contribute to 30% uplift in labour productivity across all sectors

	INITIATIVES	OUTCOMES	TARGETS
SERVICES	**PROFESSIONAL SERVICES**		
	Develop ethical guidelines for the usage of digital technologies within the professional services industry	Digital technologies are adopted in a secure and beneficial as well as minimising ethical risks	1. Top 15 of the Inclusive Internet Index by The Economist Intelligence Unit (EIU)
	TRANSPORTATION AND LOGISTICS		
	Promote and encourage a centralised and open transport database to allow for more and better analytics, monitoring and evaluation	Efficient and smart mobility of people and goods	1. To have machine-readable data, with access through API 2. 5% growth of public transport ridership in Greater KL/Klang Valley by 2025
	Expedite the implementation of ubiquitous customs (uCustoms) system	Efficient customs clearance in logistics services	1. Increase in digital adoption rate across businesses 2. 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	Increased adoption of technologies amongst stakeholders and better customer experience	1. To have machine-readable data, with access through API 2. Contribute to creation of at least 5,000 start-ups by 2025 3. Contribute to 875,000 MSMEs adopt eCommerce by 2025
	Equip existing wholesale and retail subsector workforce with digital skill sets	Digitally skilled workforce	1. Contribute to 30% productivity increase across all sectors 2. Top 15 under Skills pillar in WEF Global Competitiveness Index
	FOOD AND BEVERAGES		
	Accelerate eCommerce onboarding programme for offline food and beverages (F&B) businesses	More F&B businesses onboard eCommerce to optimise their operations and improve customer experience	1. Contribute to 30% uplift in labour productivity across all sectors 2. Top 15 under Skills pillar in WEF Global Competitiveness Index 3. Contribute to 875,000 MSMEs adopt eCommerce by 2025

QUICK-WIN INITIATIVES

are the high impact initiatives which can be implemented in a short timeline

NATIONAL

T1

Initiative 1: Transform MAMPU to better drive digitalisation and respond to rapidly evolving digital technologies

Initiative 5: Introduce the Digital-First programme to enhance Federal and state levels usage of cloud services

Initiative 8: Establish data-driven policy development and improve the data sharing environment to ensure data quality

Initiative 9: All federal and state level agencies to adopt cashless payments as the preferred method for more efficient transactions

Initiative 12: Accelerate digital signature implementation across public sector online services to enable end-to-end digital transactions

T2

Initiative 4: Adopt an agile regulatory approach to meet the needs of digital economy businesses

Initiative 5: Streamline pro-competition measures with digital economy policy to promote fair competition

T3

Initiative 3: Expand the adoption of OSC 3.0 Plus Online to more local authorities to speed up approval process in deploying broadband infrastructure

T5

Initiative 1: Introduce *My Ikrar* programme to encourage volunteerism in conducting digital training

T6

Initiative 4: Strengthen cross-border data transfer mechanisms and protection to facilitate seamless data flows

SECTORAL

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

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

Wholesale and Retail Trade: Equip existing wholesale and retail subsector workforce with digital skill sets

BOLD AND NEW INITIATIVES

are the high impact initiatives and have great importance on achieving the vision of the Blueprint

NATIONAL

T1

Initiative 10: Enhance Government Online Services Gateway (GOS Gateway) with integrated systems for greater ease of doing business

T2

Initiative 6: Empowering local champions and stimulating investment through digital industry clusters

T2

Initiative 1: Introduce "My Device" programme to ensure all students in Malaysia can access digital learning

Initiative 2: Introduce digital packages to ensure all schools in Malaysia have good connectivity

Initiative 5: Introduce "My Digital Teacher" programme to encourage teachers to fully embrace the use of digital tools and technology

Initiative 6: Expand an open access knowledge bank to house teaching materials for educators

Initiative 12: Introduce the "GigUp" programme to equip gig workers with versatile skills

SECTORAL

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

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

CHAPTER 4

GOVERNANCE STRUCTURE

GOVERNING THE IMPLEMENTATION

A dedicated governance structure has been established to drive effective formulation, implementation and monitoring of the Malaysia Digital Economy Blueprint. It comprises five key components:

1. **National Digital Economy and 4IR Council** provides leadership and policy direction
2. **Clusters** provide expert and technical support for policy development and direction
3. **Steering Committee** functions to coordinate and monitor effective implementation
4. **Strategic Change Management Office** functions as the (i) change management driver, (ii) overall monitoring and evaluation unit and (iii) secretariat to the National Digital Economy and 4IR Council and Steering Committee
5. **Working Groups** act as lead implementers of the initiatives and provide technical expertise

The governance structure and the policy implementation approach have the following key features to ensure accountability, efficiency and effectiveness:

Strategic Change Management Office to roll out and drive change to ensure acceptance across the nation

Implementation through people-private-public partnerships, including academicians and civil society organisations (CSOs)

Transparent and clear monitoring and evaluation mechanism to establish complete feedback loop

Specific clusters chaired by Ministers and the Chief Secretary to the Government to improve overall efficiency, accountability and inter-ministry collaboration

Clear timelines for measurable outcomes

GOVERNANCE STRUCTURE

National Digital Economy and 4IR Council chaired by the Prime Minister
supported by Ministers, relevant private sector representatives, academicians and CSOs

DIGITAL TALENT	DIGITAL INFRASTRUCTURE AND DATA	EMERGING TECHNOLOGY	ECONOMY	SOCIETY	GOVERNMENT
Chair: Minister of MOHR	**Chair:** Minister of KKMM	**Chair:** Minister of MOSTI	**Chair:** Minister of MITI	**Chair:** Minister of KPWKM	**Chair:** Chief Secretary to the Government (KSN)
Key Members: MOE, MOHE, KBS, KKMM, KKR, EPU, KPWKM, KPLB	**Key Members:** MOT, MOSTI, KPKT, KKR, KPLB, KPWKM, MOHE , EPU, MAMPU, MCMC	**Key Members:** KKMM, MITI, EPU, MOHE, Public Research Institutions	**Key Members:** MOF, MEDAC, KPDNHEP, MOSTI, KKMM, KKR, KPWKM, EPU, MIDA, BNM	**Key Members:** KKM, KPLB, KBS, KASA, KETSA, EPU, MEDAC, KKMM	**Key Members:** KPKT, MOSTI, MAMPU, KDN, KKMM, EPU, JPA
Private Sector: Private HEIs, content providers, education associations	**Private Sector:** Telecommunication industries, technology providers, data centre providers	**Private Sector:** Technology providers, private HEIs	**Private Sector:** Industry associations, investors	**Private Sector:** Telecommunication industries, CSOs	**Private Sector:** Training providers, digital technology providers

Agile regulation (including Good Regulatory Practice, sandbox): MPC

Cyber security: KDN, NACSA

Inclusivity and sustainability: EPU

Secretariat: MOHR	**Secretariat:** KKMM	**Secretariat:** MOSTI	**Secretariat:** MITI	**Secretariat:** KPWKM	**Secretariat:** MAMPU

Multiple Working Groups (WGs)

- **Federal and state government-led initiatives**
- **Private sector, CSOs, academia-driven initiatives**

STEERING COMMITTEE

(Chair: Minister in the Prime Minister's Department (Economy))

Cluster chairs or Secretary Generals

Representatives from private sector, academia and CSOs

Others (for example, relevant ministries, federal agencies, state government)

Strategic Change Management Office (EPU)

CHAPTER 5
CONCLUSION

BEING PROACTIVE WILL ENABLE MALAYSIA TO THRIVE IN THE DIGITAL ERA

THE MALAYSIA DIGITAL ECONOMY BLUEPRINT

The Blueprint represents Malaysia's aspirations and action in accelerating growth of the digital economy to enrich and improve the wellbeing of all Malaysians. It outlines strategies and initiatives to enable Malaysia to be a regional leader in the digital economy and achieve inclusive, responsible and sustainable socioeconomic development.

THE IMPERATIVE

The global trends and Malaysia's aspiration of becoming a high-income, technology-based and prosperous nation necessitate a thriving digital economy. Meanwhile, the adverse effects, if not managed properly, pose a threat to livelihoods and the social fabric.

THE GAME PLAN

The Blueprint emphasises human-centric values, which will benefit the society at large. The success of this Blueprint relies on the concerted efforts and cooperation of the society, businesses and government .

The Blueprint's strategies and initiatives are developed under the six thrusts aiming to accelerate the digital economy in Malaysia. These are accompanied by a clear governance structure and implementation framework. Malaysia is committed to being agile, sustainable and progressive towards a vibrant digital economy.

ACT TOGETHER TO DRIVE THE ASPIRATIONS OF MyDIGITAL

The roles of society including CSOs, business and the government are complementary to each other. Insights and actions from all stakeholders are pivotal in shaping and understanding the impacts of digital and technology disruption on Malaysia.

Active participation from and strong partnerships between all stakeholders are necessary for the equitable and cohesive success of MyDIGITAL. Ultimately, the motivation to do good for all should be the driving force of every endeavour, in order to positively impact society.

SOCIETY

To reap the benefits of digital transformation, society needs to:

- be willing and adaptable to change
- embrace opportunities to ensure their personal digital readiness through furthering their knowledge and skills
- make use of open data platforms to develop digital solutions which are relevant to their communities
- be responsible in their use of technologies for good
- contribute to building trust and overcoming the challenges of digital transformation related to data protection, digital misinformation and cyber bullying

To assist society in embarking on digital transformation and scale up their impact, CSOs can contribute to:

- bridge the digital divide – by reaching out to those who need help with digital access and literacy
- influence the use of emerging technologies for good

BUSINESS

To remain resilient and competitive, the businesses need to:

- invest in innovation and adopt digital solutions
- take lead for some of the MyDIGITAL initiatives
- lead innovative, responsible and sustainable approaches in delivering products and services
- propel innovative solutions to solve socio-environmental challenges
- equip the workforce with the necessary skill sets to embrace widespread transformation
- participate in community and socioeconomic empowerment agenda

GOVERNMENT

To create a complementing ecosystem that facilitates responsible and sustainable transformation, the government will:

- continue to provide strategic direction and policy decisions for areas of focus and actions needed
- continue to invest in infrastructure and facilitate skills upgrading
- adopt a more data-driven and *rakyat*-centric approach in developing policies and regulatory frameworks
- facilitate businesses and society to have equal access to the opportunities and socioeconomic benefits of the digital revolution
- prioritise public funds to encourage innovation and technology adoption

MyDIGITAL – EMPOWERING PEOPLE, ENABLING BUSINESS

The goal of MyDIGITAL is to ensure all of us enjoy the opportunities and benefits from this digital revolution. For this to be realised, we need to rid the fear of the unknown future and with it, the resistance to change. Instead, we need to be ready to face the challenges of digitalisation.

To become the nation it envisions, Malaysia needs to take hold of the opportunity and power to shape this digital revolution. We need to be adaptable, excited to learn and eager to contribute towards a future that reflects our common objectives and values. Recognising the rapid unfolding of the digital revolution, we shall drive the desired MyDIGITAL agenda with a great sense of urgency.

GLOSSARY

10MP	Tenth Malaysia Plan
11MP	Eleventh Malaysia Plan
4IR	Fourth Industrial Revolution
ACE	Accredited Cybersecurity Education
AI	Artificial Intelligence
API	Application Programming Interface
B2C	Business-to-Consumer
BNM	*Bank Negara Malaysia*
CDO	Chief Digital Officer
CSO	Civil society organisation
DELIMa	Digital Educational Learning Initiative Malaysia
DIIM	Digital Inclusion Index Malaysia
EIU	Economist Intelligence Unit
EPU	Economic Planning Unit
F&B	Food and beverages
G20	Group of 20
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GLC	Government-linked company
GOS Gateway	Government Online Services Gateway
HEI	Higher Education Institution
ICT	Information and Communication Technology
ICU	Implementation Coordination Unit
IMD	International Institute for Management Development
INTAN	National Institute of Public Administration
IoT	Internet of Things
IP	Intellectual property
JENDELA	*Pelan Jalinan Digital Negara*
JPA	Public Service Department
KASA	Ministry of Environment and Water
KBS	Ministry of Youth and Sports
KDN	Ministry of Home Affairs
KEGA	Key Economic Growth Area
KETSA	Ministry of Water, Land and Natural Resources
KKM	Ministry of Health
KKMM	Ministry of Communications and Multimedia
KKR	Ministry of Works
KPDNHEP	Ministry of Domestic Trade and Consumer Affairs
KPKT	Ministry of Housing and Local Government
KPLB	Ministry of Rural Development
KPWKM	Ministry of Women, Family and Community Development
KSN	Chief Secretary to the Government
MAMPU	Malaysian Administrative Modernisation and Management Planning Unit
MBOT	Malaysia Board of Technologies
MCMC	Malaysian Communications and Multimedia Commission
MDEC	Malaysia Digital Economy Corporation
MEDAC	Ministry of Entrepreneur Development and Cooperatives
MIDA	Malaysian Investment Development Authority
MITI	Ministry of International Trade and Industry
MKN	*Majlis Keselamatan Negara*
MNC	Multinational company
MOE	Ministry of Education

MOF	Ministry of Finance
MOHE	Ministry of Higher Education
MOHR	Ministry of Human Resources
MOSTI	Ministry of Science, Technology and Innovation
MOT	Ministry of Transport
MPC	Malaysia Productivity Corporation
MSAP	Mandatory Standard on Access Pricing
MSC	Multimedia Super Corridor
MSME	Micro, Small and Medium Enterprise
MyCC	Malaysia Competition Commission
MyHDW	Malaysia Health Data Warehouse
NACSA	National Cyber Security Agency
NDI	National Digital Identity
NFCP	National Fiberisation and Connectivity Plan
OECD	Organisation for Economic Cooperation and Development
PDPA	Personal Data Protection Act
PENJANA	Short-Term Economic Recovery Plan
PPP	Public-Private Partnership
R&D&C&I	Research, development, commercialisation and innovation
RMKe-12	Twelfth Malaysia Plan
SCMO	Strategic change management office
STEM	Science, technology, engineering and mathematics
STTF	SME Technology Transformation Fund
TEP	Technology Expert Panels
UBBL	Uniform Building By-Law
uCustoms	ubiquitous customs
UN	United Nations
UN-EGDI	United Nations E-Government Development Index
UNCTAD	United Nations Conference on Trade and Development
UPI	Unified Payment Interface
WEF	World Economic Forum
WG	Working Group
WKB 2030	*Wawasan Kemakmuran Bersama 2030*

BERSEKUTU

BERTAMBAH MUTU