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Staying relevant to stay in business

Accelerating Malaysia's digital economy
with technology

February 2021

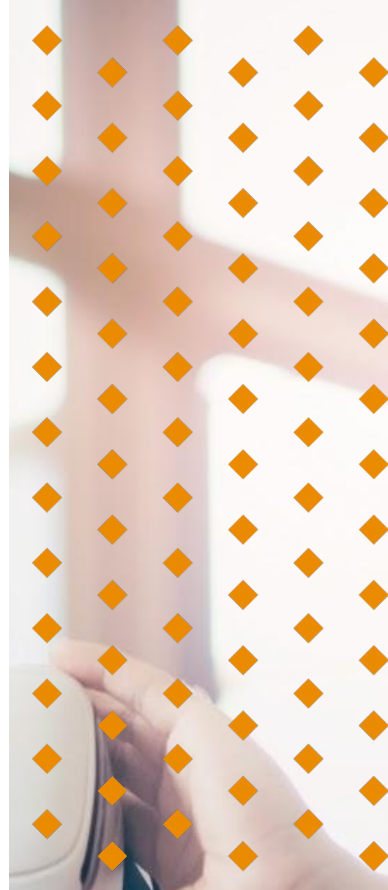


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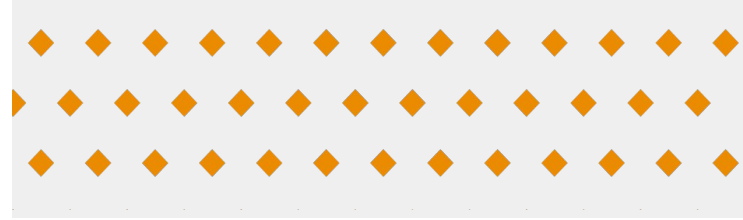
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The Fourth Industrial Revolution is here

Imagine this. You're shopping for a new TV at home. Unsure of which model to buy, you ask your virtual assistant for recommendations. You select a product and go to their website. A chatbot appears, answering your questions in real time.

This scenario may have seemed far-fetched decades earlier (maybe even years) but today, it's a reality that millions of people around the world are living in - the reality of the Fourth Industrial Revolution (4IR).

The dawning of this new age was of course ushered in by the rapid acceleration of technological developments, which is gradually blurring the lines¹ between the physical, digital, and biological spheres. Indeed, technology has allowed for the possibility of *real-time data gathering analysis and algorithm-based decision-making, creating a "digital twin of our physical world."*²

More and more, we are consuming or interacting with established or emerging technologies³ such as artificial intelligence (AI), the Internet of Things (IoT), cloud computing, blockchain, and robotic process automation, whether in our work or in our personal lives.

Without a doubt, it is changing how we experience the world, and as the adoption of technology continues to grow, so too will our digital economy - a key contributor⁴ to the nation's growth domestic product (GDP).

To opt in or not? That isn't the question

To stay relevant, it is mandatory for businesses to embed technology into their DNA, aligning the value they can create with today's continuously changing expectations e.g. consumers want speed and convenience, global economies are becoming increasingly digital - facts that can't be ignored. Saying no to technology would then be akin to accepting a fate of obsolescence.

So the real questions businesses should be asking themselves are, "*How exactly do I use these technologies? What must I do to get the most out of them?*"

The opportunities are boundless if technologies are applied with careful consideration. For instance, they could create new jobs, and improve innovation and productivity in the workplace, shielding businesses from economic uncertainties⁵, much like what we're experiencing now due to COVID-19.

There is also great potential to use technology for good, like addressing urgent social and environmental challenges for a better world.

Digitalising the nation calls for close collaboration between the private and public sectors

On 19 February, the government introduced MyDIGITAL, a national initiative that symbolises the aspirations of the Government to successfully transform Malaysia into a digitally-driven, high income nation and a regional leader in digital economy⁶. To realise this aspiration, the government launched the Malaysia Digital Economy Blueprint to accelerate the country's

¹The Fourth Industrial Revolution: what it means, how to respond. World Economic Forum. 14 Jan 2016

²⁻³⁻⁵Consumer intelligence series: Are we ready for the Fourth Industrial Revolution?. PwC. 2019

⁴Malaysia's digital economy contributes 18.5% to GDP in 2018. The Sun Daily. 16 October 2019

⁶Malaysia Digital Economy Blueprint. Economic Planning Unit. 2021. Pg. 10



digital economy, recognising that while technology adoption in the country has steadily increased over the years, the pace could be faster and more inclusive. The Blueprint aims to achieve this by providing a framework to strengthen the building blocks needed for digitalisation, which will enable the adoption of more advanced technologies in Malaysia.

Speeding up adoption on a broad scale is a monumental effort that no one party can take on single-handedly. So while the government can steer the strategies and initiatives to digitalise the nation for the well-being of Malaysians, they will need the private sector's support to lead the charge in certain areas.

A partnership between the public and private sectors makes sense, because both are well positioned to effect change, and each has specific roles to play - the government can ensure regulations are agile enough so as not to hinder innovation, for instance, while businesses can contribute by sharing their experiences and expertise within their respective fields.

In this regard, the government is encouraging the private sector to be active participants in helping them meet the Blueprint objectives. Leveraging the strengths of both parties is reinforced by the fact that a National Digital Economy and 4IR Council has been set up to oversee the implementation of the Blueprint, and the Council Members not only comprise members from the public sector, but representatives from the private sector as well.

This fosters a sense of shared responsibility and accountability, which will no doubt be favourable to implementation success.

As such, we believe it is imperative for the private sector to answer the government's call for collaboration. Together, we can create innovative solutions with technology, using them in ways that will benefit society and our environment, while keeping the potential risks of technology at bay.

The interlinking of technology and the digital economy



When you shop online, the e-Commerce platform that you're using is representative of the digital economy. When the app recommends certain products to you based on your browsing history or past purchases, it is the result of AI - a 4IR technology - at work.

As the *Malaysia Digital Economy Blueprint*⁷ aptly puts: "The digital economy is an outcome of the Fourth Industrial Revolution." Which means that as digitalisation intensifies because of 4IR, the digital economy is expected to grow in parallel.

In a nutshell, the Blueprint charts the trajectory for Malaysia's digital economy growth, which includes laying the foundation to drive digitalisation across the nation, and bridging the digital divide.

The Malaysia Digital Economy Blueprint - Points to note⁸

The Malaysia Digital Economy Blueprint is built on the foundation to drive digitalisation across the nation, including bridging the digital divide and is guided by 3 principles. This is aligned with Malaysia's Shared Prosperity Vision 2030, the 2030 Agenda for Sustainable Development, and the 12th Malaysia Plan.



1

Inclusivity

To ensure digitalisation leaves no one behind



2

Ethics

To ensure data and digital tools are used ethically



3

Trust

To ensure growth without compromising privacy and cyber security

⁷Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 24

⁸Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 41

Key highlights

Malaysia Digital Economy Blueprint⁹

3 phases

Vision

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

3 objectives

Harness human capital that is able to thrive in the digital economy

Encourage industry players to become creators, users and adopters of innovative business models under the digital economy

Nurture an integrated ecosystem that allows society to adopt digital economy

6 thrusters

Support the vision and objectives. Each thrust addresses specific issues and cases for change

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



Key highlights (cont'd)

Malaysia Digital Economy Blueprint¹⁰

48 national initiatives

28 sectoral initiatives

22 strategies across the 6 thrusts

Drive digital transformation in the public sector

- (1) Managing change for effective digital transition
- (2) Leveraging digital technology to improve workflow efficiency and productivity
- (3) Enhancing digital skill sets of civil servants
- (4) Utilising data to improve government services
- (5) Increasing scope and quality of online services for better user experience



Build enabling digital infrastructure

- (10) Utilising regulatory measures to expand infrastructure coverage
- (11) Leveraging digitalisation to address legacy challenges
- (12) Enhancing digital technology infrastructure capabilities



Create an inclusive digital society

- (17) Increasing inclusivity of all Malaysians in digital activities
- (18) Empowering special target groups in the society to participate in the digital economy through entrepreneurship



Boost economic competitiveness through digitalisation

- (6) Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level
- (7) Accelerating industry development by enhancing local participation
- (8) Streamlining regulatory requirements to respond to digital economy and encourage innovative business models
- (9) Developing digital industry cluster and driving entrepreneurial activity



Build agile and competent digital talent

- (13) Integrating digital skills into education at primary and secondary level
- (14) Shifting focus of vocational and tertiary education from job-specific skills to competencies and adaptability
- (15) Reskilling current workforce with the digital skills needed to stay relevant
- (16) Ensuring that gig workers are protected and equipped with the right skills



Build trusted, secure and ethical digital environment

- (19) Strengthening safety and ethics in digital activities and transactions
- (20) Enhancing institutions' commitment to personal data protection and privacy
- (21) Improving cross-border data transfer
- (22) Increasing cyber security uptake among businesses



¹⁰Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 42

Key highlights (cont'd)

Malaysia Digital Economy Blueprint¹¹

The Blueprint states that “the roles of society including CSOs, business and the government are complementary to each other.” For strong partnerships to take hold, the Blueprint proposes for society, businesses and the government to embrace the following roles.



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



Businesses

To remain resilient and competitive, businesses are encouraged to:

- Capitalise on digital platforms, ecosystems and marketplaces in their activities
- Collaborate with the government and CSOs in new partnership models
- Invest and adopt digital solutions
- Take lead for some of the **MyDIGITAL** initiatives
- Lead innovative, responsible and sustainable approaches in delivering digital products and services
- Equip the workforce with the necessary skill sets to embrace widespread transformation
- Participate in community and socioeconomic empowerment agendas



Government

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

- Provide strategic direction and policy decision for areas of focus and actions needed
- Invest in infrastructure and facilitate human capital development
- Facilitate the implementation of identified initiatives in the Blueprint
- Encourage businesses and society to embrace digital economy

Where do businesses come in?

Achieving the objectives of the Blueprint: A shared responsibility



The private sector is a key beneficiary group of the government's Malaysia Digital Economy Blueprint. But businesses themselves have a key role to play in seeing the strategies come to fruition.

A starting point: They need to accept that technology will carry them forward into the industries of the future.

What's in it for me? The benefits of saying 'yes' to technology

Adopting technology can:



Create opportunities for growth and strengthen business resilience in economic uncertainties



Improve efficiency and productivity, resulting in time and cost savings



Improve social and environmental performance, simultaneously protecting the company's reputation and our planet

Key areas to look into for successful technology implementation

Transformation is more than just investing in technology. To get the most out of the tools and systems, and to promote the practice of using technology responsibly, companies need to:

“

I agree that technology is important in helping my business maintain relevance.

Now what? ”

- **Re-examine their business models**
Companies must adapt as traditional business models are disrupted
- **Upskill their workforce**
Digital and human skills are needed for employees to thrive in their roles
- **Safeguard data privacy and enhance cyber security measures**
Tech vulnerabilities can expose companies to risk and must be addressed to build trust
- **Apply technology in crisis management and response**
It's hard to predict when a crisis will strike, but technology can help minimise its impact

What's in it for me? The benefits of saying 'yes' to technology



Opportunity for growth

Consumer behaviours have gradually been evolving, the speed of which has accelerated because of COVID-19. As we observed in *PwC's Global Consumers Insights Survey 2020*¹², the pandemic has encouraged consumers to explore different ways of accessing products and services. As an example, 45%¹³ of respondents said their mobile shopping increased after the outbreak (93%¹⁴ said they were likely to maintain this current increased usage). When it came to shopping online for groceries, only 9%¹⁵ did so before COVID-19, but that figure jumped to 63%¹⁶ after social distancing measures were introduced.

These trends represent the shift in consumer expectations, where the desire for speed and convenience have become the cornerstones of great consumer experience. The businesses that are attuned to these new demands will recognise that meeting them will only be possible with the help of technology - the catalyst for innovation.

In fact, in a *PwC report on 4IR*¹⁷, we highlighted that 4IR technologies can open up new use-cases for products, allowing for the possibility of entering new markets and reaching more diverse customer segments. For instance, a *virtual reality (VR) gaming developer*¹⁸ could potentially diversify its business by branching into industrial training using VR systems. This would not only fulfill a market need, but also create new revenue streams for the business.

For businesses that want to broaden their reach, they can attract customers by decreasing reliance on brick and mortar stores alone. Carving a mobile presence for themselves and leveraging geotagging software, for instance, can allow for notifications to be targeted towards individuals who are nearby or in a specific radius. Integrating such a mobile app with payment features would also provide customers with convenience, and more importantly in our COVID-19 environment - safety.

As new players enter the market, a strategic application of technology will become more crucial if companies are serious about increasing visibility to stand out from the crowd.

Strengthens resilience in times of economic uncertainty

COVID-19 has proven that businesses and society as a whole are today relying more and more on innovative technological solutions to carry out our day-to-day tasks. So it's no surprise that companies that had already made investments into digital transformation pre-pandemic were able to pivot more quickly¹⁹ than those who hadn't.

What this has reinforced is the undeniable fact that technology can fortify a company and cushion it from shocks during times of economic uncertainty - consistent with a *PwC survey finding*²⁰ where business leaders (63%) believed 4IR technologies offer them protection against economic downturns.

With the virus still threatening to impede the nation's plans to achieve full economic recovery, there is no better time than now for businesses to invest in technology. In our new world where uncertainties loom, implementation should no longer be viewed as a luxury, but a necessity.



63%

said 4IR provides protection against economic downturns

78%

said 4IR tech solves new problems for customers²¹

¹²⁻¹³⁻¹⁴PwC's Global Consumer Insights Survey 2020, The Consumer Transformed, 2020, Pg. 13

¹⁵⁻¹⁶PwC's Global Consumer Insights Survey 2020, The Consumer Transformed, 2020, Pg. 14

¹⁷⁻¹⁸The fourth industrial revolution: a recovery plan for today's economic storm, PwC, 2020, Pg. 12

¹⁹Being resilient isn't enough. Get digital right—now. PwC, 2020

²⁰Consumer intelligence series: Are we ready for the Fourth Industrial Revolution? PwC, 2019

²¹The fourth industrial revolution: A recovery plan for today's economic storm, PwC, 2020, Pg. 11

Greater efficiency, improved productivity

The association between technology and benefits like increased productivity and efficiency is gradually strengthening, and with reason. When we surveyed Malaysians around the impact of technology on their jobs²², 93% said that technology would improve the way they carried out their tasks, such as boosting efficiency. A number²³ also believed that technology could enable them to get more done and allow them to do more interesting work.

Therein lies the advantage of having automation on your side. Manual, tedious and repetitive tasks can be automated - improving productivity by saving employees time.

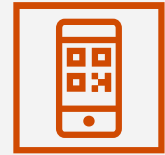
The impact on productivity is rooted in research. In a PwC study²⁴, it was found that small automation (e.g. robotic process automation (RPA), machine learning, natural language processing) has the potential to improve the productivity of individual processes by 80-100%, and overall functions by 20% or more. The time and cost savings²⁵ mean employees are able to steer their focus towards higher-value work, like analysing data generated from digital tools, then translating them into actionable insights.

The quality of deliverables may also be improved, as human error is taken out of the equation. For example, using a data collection tool would promise greater accuracy than if this were to be done manually, especially if the volume of data is significant.

If technology is implemented, the winners won't just be employees. Consumers or those on the receiving end of a service would feel the difference too, especially if efficiency is concerned. For instance, no one likes waiting, and using AI to analyse hospital records²⁶ could allow staff to be resourced more efficiently, which ultimately improves waiting times and ensures patients are attended to faster.

To put it simply, improved efficiency and productivity will lead to satisfied employees and customers, which are key drivers of business growth.

However, the outcome of a more efficient and productive workforce will be dependent on whether they are equipped with the right skills to extract the full value of a particular technology (See pg. 16 for section on upskilling)



93%

said technology would improve how they carry out their tasks



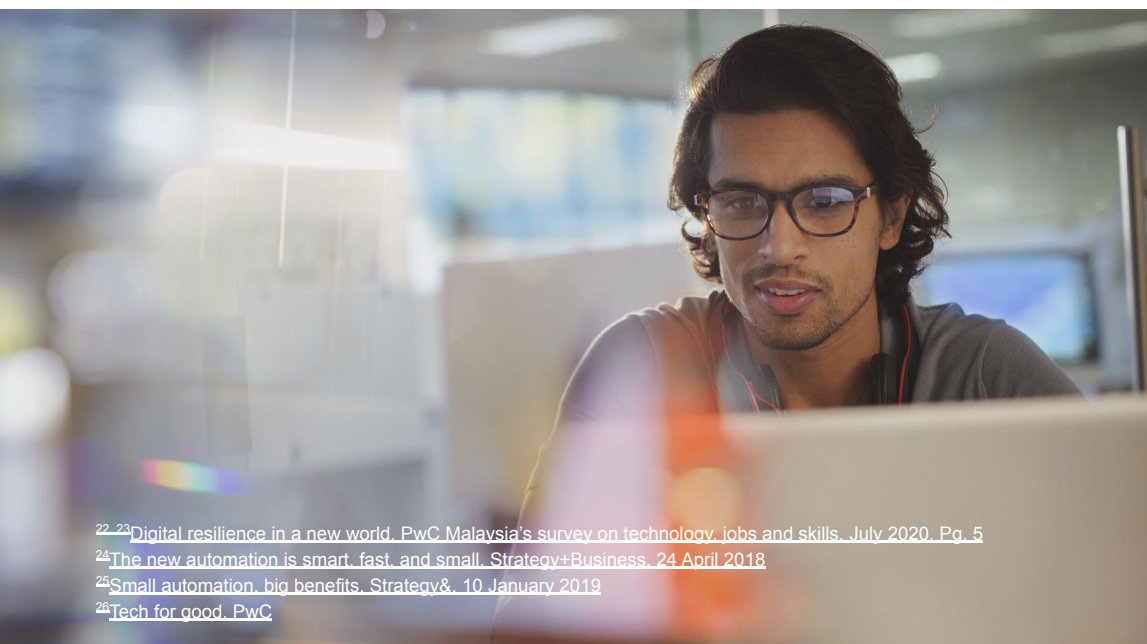
77%

were excited or optimistic about the role technology can play in their jobs

Of those who felt positive:

35% were hopeful that technology would allow them to do more interesting work

27% were hopeful that technology would enable them to get more done



²²⁻²³Digital resilience in a new world. PwC Malaysia's survey on technology, jobs and skills. July 2020. Pg. 5

²⁴The new automation is smart, fast, and small. Strategy+Business. 24 April 2018

²⁵Small automation, big benefits. Strategy&. 10 January 2019

²⁶Tech for good. PwC

A better grasp of environmental performance

Decades of industrialisation have put our planet and its resources under strain, and with climate change threatening to bring forth rising sea levels and severe weather changes, businesses can no longer treat sustainability as an initiative under their Corporate Responsibility agenda, but rather as a guiding force within an overall business strategy that dictates how decisions should be made.

Not only would this be the right thing to do because our planet is our responsibility, it's also become a business imperative given society's growing awareness of sustainability issues. People are expecting businesses to be accountable for their environmental impact²⁷, and their interest in a company's sustainable business practices has only increased during COVID-19. Put in other words: A company will be judged by the level of attention and investment they make into protecting our planet, whether by their employees, customers, or investors.

The good news is that it's starting to become a topic of conversation in the business sphere, with more and more companies committing to net zero carbon emissions targets (PwC included²⁸).

There's no overnight solution to running a business responsibly and achieving net zero, but businesses can start by investing in the proper technologies to improve environmental performance.

In a PwC report with the World Economic Forum (WEF), we mapped out 345 technology applications²⁹ across the Sustainable Development Goals (SDGs), looking into how innovation can be harnessed to address our most pressing social and environmental issues.

"4IR-enabled peer-to-peer renewable energy trading", "technology solutions that reduce the need for travel" and "advanced materials for low/zero emissions aluminium, steel and cement" are just several examples of applications that can be deployed. In fact, the WEF report 'Unlocking Technology for the Global Goals³⁰' published in collaboration with PwC, found that 70% of the 169 SDG targets could be enabled by 4IR technologies already in deployment.

In Malaysia where we still have some way to go with regards to tech maturity, the challenge would be for us to look closely into how we can invest or develop key technologies/infrastructure that will support this long-term goal. Doing so would be crucial not only to boosting the country's global competitiveness and attractiveness in terms of doing business, especially now as sustainability progressively secures its place as a core business focus worldwide. It would also improve the rakyat's standard of living - for example, through the ability to ensure that frequent water disruptions due to pollution become a thing of the past.

The approval of stakeholders aside, being environmentally conscious could also result in cost savings for businesses. With the help of IoT sensors³¹, for example, companies can detect when people are in a room, and adjust lighting and temperature levels accordingly, effectively lowering utility bills without the need for human intervention.

²⁷PwC's Global Consumer Insights Survey 2020. The Consumer Transformed. 2020. Pg. 20

²⁸Committing to Net Zero by 2030. PwC

²⁹Exploring 4IR-enabled applications for the SDGs. PwC. 2020. Pg. 2, 4, 6

³⁰Unlocking Technology for the Global Goals. World Economic Forum in collaboration with PwC. January 2020. Pg. 12

³¹Five unexpected ways to use the Internet of Things. PwC. 19 February 2019



Chapter key takeaways

- 1 Adopting technology presents businesses with the opportunity for growth, as they can help satisfy the changing needs of today's consumers, while improving efficiency and productivity.
- 2 Technology facilitates innovation, allowing companies to pivot faster when needed, protecting them from economic shocks.
- 3 With technology assisting with manual, tedious, and repetitive tasks, employees can focus on higher-value work for the company. Time and cost savings aside, efficiency can also translate to an improved experience for customers.
- 4 Society is now scrutinising the sustainable business practices of a company, and companies can work on improving their environmental performance by harnessing the potential of various technologies.
- 5 Besides maintaining a company's reputation, using technology to lower environmental impact could also result in cost savings for the company.



Key areas to look into for successful technology implementation



Implementing technology is no small feat, but once you've agreed that it can transform your business for the needs of today's world, you've already taken a step in the right direction. That doesn't mean, however, that companies should rush into implementation.

There are a number of critical questions that must be considered. For instance, what is the end result you hope to achieve with technology? After all, the technology is merely the enabler, deployed to fulfill your purpose. To lay the groundwork, we believe businesses should direct their focus towards:

- Re-examining their business models
- Upskilling their workforce
- Safeguarding data privacy and enhancing cyber security measures
- Applying technology in crisis management and response

By working on these areas, businesses can play a significant role in helping the government execute some of their strategies laid out in the Malaysia Digital Economy Blueprint.

Re-examine your business models

Digital Economy Blueprint strategy	Facilitating digital adoption, access and effective use of digital technology across all firm sizes & digital maturity level ³²	Streamlining regulatory requirements to respond to digital economy and encourage innovative business models ³³
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Adopting technology does not automatically equate to a transformed company. For meaningful transformation, companies need to take a second look at their business model and ask themselves *how* that particular technology can help them execute their business strategy.

In recent years, we have seen technology disrupt traditional business models, opening doors to new, innovative ones, while breaking down barriers for new, smaller players to enter the market.

The possibilities are varied - Will you continue to sell your products and services or pivot to a subscription-only model? Is it worth opening a new restaurant outlet or should you partner with a food delivery service provider to expand your reach? The decision you land on should be based on careful research of whether this is indeed what your customers want.

At the end of the day, the technology you decide to adopt should stem from the business model you deem most ideal in facilitating the delivery of value to your stakeholders.

^{32, 33} [Malaysia Digital Economy Blueprint. Economic Planning Unit, 2021, Pg. 42](#)

Partnerships within the private sector

With your business model setting the foundation for how your company will deliver value, the next step would be deciding on an approach to leverage technology.

Companies may choose to buy and implement their own tools and systems to drive their strategies. But there may be factors that influence them to do otherwise. Perhaps they lack the finances needed to implement their desired technology, or maybe the human resources they have aren't pushing the boundaries of innovation far enough.

A viable solution to consider then, would be to partner with a company that's already digitally advanced, much like traditional banks partnering with fintech startups, or hotels partnering with online booking platforms.

These partnerships make sense, because the respective companies are given access to draw on each other's strengths and capabilities. A digitally-advanced company may provide the technology and the know-how to use them effectively in response to market needs. The more traditional company may in turn share industry insights or lend its brand strength to the startup for increased credibility. This would undoubtedly give both companies an edge over their competitors.

Agreeing to a partnership is a commitment, and businesses should do a thorough assessment of the mutual benefits it will yield before sealing the deal. Importantly, the decision to partner or not should be based on shared values and trust³⁴.



Partnerships between the public and private sectors

The proliferation of technology adoption in the country will be challenging without government intervention, so we are excited to see a number of initiatives within the Malaysia Digital Economy Blueprint placing emphasis on public-private partnership.

To help the construction sector unlock the benefits of using technology, for instance, the government plans to intensify innovation in emerging digital technologies for sustainable construction³⁵, and pioneer technologies through industry-academia-government partnerships. And to widen access to local companies (especially SMEs) in manufacturing, there are plans to establish digital and technology labs³⁶ to demonstrate how applications can be used within the industry. [To view all the initiatives by sectors, click here³⁷ to access the Blueprint]

In our view, these initiatives have the potential to educate and raise awareness among the most reluctant of technology adopters, giving them an opportunity to 'test the waters' and uncover for themselves the value (e.g. time/cost savings) that technology can bring when applied effectively.

In order to speed up the country's digitalisation goals, we encourage the private sector to explore the many possible areas of collaboration with the public sector once these initiatives are rolled out in phases.

³⁴10 principles for modernizing your company's technology. Strategy+Business. 21 February 2019

³⁵Malaysia Digital Economy Blueprint. Economic Planning Unit. 2021. Pg. 86

³⁶Malaysia Digital Economy Blueprint. Economic Planning Unit. 2021. Pg. 87

³⁷Malaysia Digital Economy Blueprint. Economic Planning Unit. 2021. Pg. 85

Upskilling may have been optional before, but in a COVID-19 world where technology has become essential in our work and personal lives, that is no longer the case.

Employees need to know how to use the implemented technologies, and they need to have the confidence to do so with support from their employers. To expect someone to be adept at using a tool with little to no training is to set them up for failure, which could ultimately affect team morale and performance. Should this happen, the company would no doubt be negatively impacted. From our experience, companies may even end up incurring additional financial and time costs due to the need to fix issues arising from ineffective technology deployment.

But what do we mean by ‘upskilling’?

To us, upskilling means more than just signing up for a course that teaches you digital skills like coding and developing apps.

We define³⁹ upskilling as “an organisation’s clear intent to develop its employees’ capabilities and employability, and to advance and progress the knowledge, skills and attitude required to enhance business and individual performance.”

In other words, an upskilling programme should be tailored to fit the needs of the business, and cover the development of not only an employee’s digital skills, but also the human skills that will complement how they’ll work alongside machines.

After all, while technology is powerful, they cannot replicate human skills like empathy and leadership. A survey⁴⁰ we ran to capture the perspectives of Malaysian CFOs in May 2020 confirms our view that human skills are still valued. When asked the question: “what about the current situation will make your company better in the long run”, 81% responded with ‘better resilience and agility’.

Indeed in times of uncertainty, having resilience as a skill will empower employees to persevere in the face of adversity - crucial to overcoming challenges. Being agile, meanwhile, is equally essential as it ensures employees can respond to disruption and adapt quickly to change. Just as digital skills can be taught, these transferable skills can also be nurtured within an organisation.

³⁸Malaysia Digital Economy Blueprint. Economic Planning Unit. 2021. Pg. 42

³⁹Talent Trends 2020. Upskilling: Building confidence in an uncertain world. PwC. 2020. Pg. 3

⁴⁰PwC’s COVID-19 CFO Pulse: Malaysia results. 12 May 2020. Pg. 12

Adopting a citizen-led approach

Formal programmes aside, a more unconventional approach that we find works is one that's built around employee crowd-sourcing. We call it citizen-led innovation⁴¹ because after employees are provided with the relevant tools and training, they're then given the autonomy to apply their new skills and knowledge to develop, test and share their solutions with other teams.

By giving employees the freedom to explore and try out different digital solutions, this effectively encourages them to push the boundaries of innovation, and fosters excitement and motivation within teams.

From what we've gathered, people are hungry to upskill. In PwC Malaysia's 'Digital resilience in a new world'⁴² survey, 93% of respondents said they would accept the opportunity to better understand or use technology. However, only 38% are given many opportunities by their current employer to improve their digital skills outside their normal duties.

There is no one approach to upskilling. But to feed their employees' appetite for learning, companies need to first identify the skills gaps and mismatches within their business, then map out a future-proof skills strategy aligned to their business needs. With technology disrupting almost every facet of business at lightning pace, a delay in upskilling could signal a slow decline in brand relevance.

A disregard for upskilling could put jobs at risk

There are many benefits that can be reaped from technology, but we cannot ignore the other side of the conversation: there are also risks if technology is deployed irresponsibly.

For one, it could result in the redeployment of jobs due to changes in skill requirements. Should this happen, it is imperative for the affected employees to be given the opportunity to be upskilled and reskilled so that they can thrive in their new roles.

Secondly, the lack of upskilling opportunities could mean a widening of the digital divide in Malaysia, as certain segments move ahead alongside technological growth while others are left behind. This would certainly go against the government's 'Shared Prosperity Vision 2030', and as businesses are in a position to effect change, we should do everything in our capacity to help narrow the divide.

Here, we see another opportunity for private and public sector collaboration. With their experience and industry knowledge, businesses can help the government shape and drive the upskilling agenda forward in the country. Such a partnership that draws on the strengths of both would have the potential to speed up the mobilisation of upskilling programmes nationwide, ensuring underserved communities are also reached, so no one gets left behind.

93% of respondents would accept the opportunity to better understand or use technology.

However, only **38%** say they are given many opportunities by their current employer to improve their digital skills outside their normal duties.



⁴¹Upskilling 2.0: business-led, people-powered, results-driven. PwC

⁴²Digital resilience in a new world. PwC Malaysia's survey on technology, jobs and skills. July 2020. Pg. 12

Safeguard data privacy and enhance cyber security measures

Digital
Economy
Blueprint
strategy

Enhancing institutions' commitment to personal data protection and privacy⁴³

Increasing cyber security uptake among businesses⁴⁴

Using data ethically

A lot of technologies run on vast volumes of data, not excluding personally-identifiable information. We see data being used by AI-powered e-Commerce platforms to give customers a more personalised shopping experience. It is used by IoT-enabled systems within manufacturing assembly lines. Even fitness trackers are fed data. And the list goes on.

While data is the fuel that drives the success of these applications, we cannot ignore the fact that the collection and processing of data have given rise to legitimate privacy concerns. In a pre- COVID-19 [survey on 4IR](#)⁴⁵, we found that while 70% of respondents agreed that 4IR technology is making their lives easier, 68% have concerns surrounding data privacy and security.

In our present environment where contact tracing apps have become necessary to contain the spread of COVID-19, that concern may only grow, as we've seen in some parts of the [world](#)⁴⁶.

As more technologies are rolled out across sectors, businesses have the responsibility of ensuring the data they collect is stored securely and used in a way that doesn't breach privacy laws.

Putting consumers at ease

We've talked a lot about how people's needs should be at the heart of every technology implementation strategy, and the issues surrounding privacy shouldn't be an exception.

Consumers know there is a trade-off when they agree to surrender data in exchange for access to a product or service. So what exactly are they asking of businesses to assuage their fears?

In the same [4IR survey](#)⁴⁷ mentioned earlier, consumers asked for more control and transparency. A majority of them wanted:

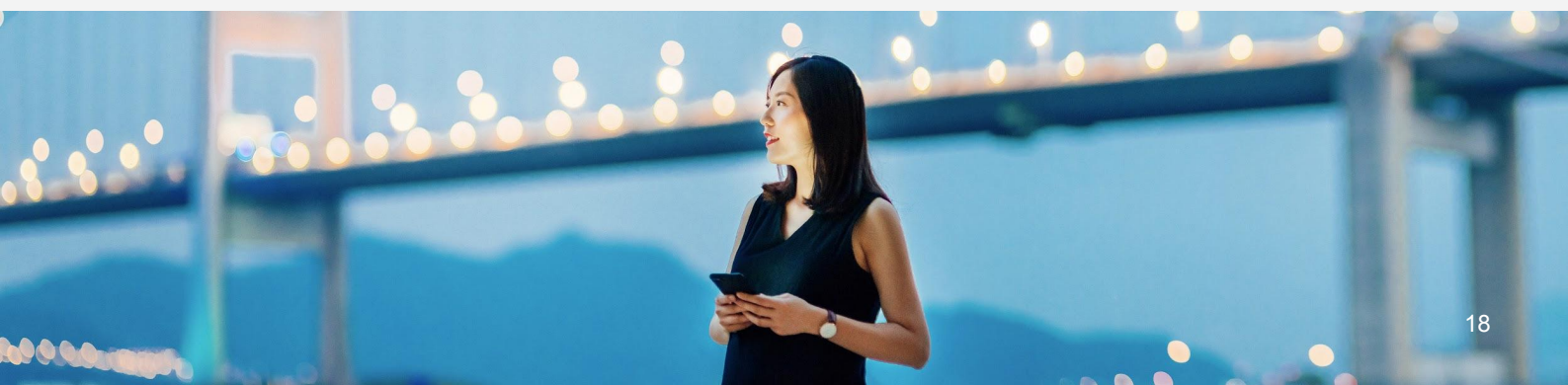
- The option to turn functions on and off
- The assurance of immediate notification if personal data is compromised
- The assurance that personal data will not be shared

With those insights in mind, companies should look into how they can put their consumers at ease while ensuring the full benefits of a particular technology can still be unlocked. The challenge would be to find the right balance, one where data risks are mitigated.

^{43, 44} [Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 42](#)

^{45, 47} [Consumer intelligence series: Are we ready for the Fourth Industrial Revolution?, PwC, 2019](#)

⁴⁶ [European Contact-Tracing Apps Stumble on Privacy Concerns, Glitches, WSJ Pro Cybersecurity, 17 August 2020](#)



It is important to develop our digital economy, but to echo the government's Malaysia Digital Economy Blueprint, we must do so *without compromising privacy and cyber security*⁴⁸. And as the government works towards *enhancing Malaysia's data protection and privacy regulatory framework*⁴⁹, businesses need to be ready to comply, and to update their own compliance programmes where needed.

Strengthening cyber resilience

Data protection is only possible when the necessary safeguards are in place. Such is the value of data, that cyber attacks are no longer just rare occurrences. In fact, as the world rushed into digitally transforming themselves in the early stages of the COVID-19 pandemic, *cybercrimes*⁵⁰ rose in tandem - *Malaysia*⁵¹ not exempted.

If we want technology to be adopted widely, we must first acknowledge that they can also render us vulnerable to risks. For example, an IoT device that's not properly secured may end up providing hackers with *an entry way*⁵² into the company's network.

We've already highlighted the many rewards that technology can offer, so avoiding them is out of the question. Rather, companies need to anticipate and take the necessary precautions to fortify their defences against potential attacks from cyber criminals.

⁴⁸Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 72

⁴⁹Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 74

⁵⁰How do we beat COVID-19 cybercrime? By working together, World Economic Forum, 6 July 2020

⁵¹MCPF moots cyber crime committee to address whopping increase in cyber crime cases, New Straits Times, 29 September 2020

⁵²You say you want a revolution? Then partner 4IR with cybersecurity, PwC, 23 October 2019



A defence strategy would of course rely on technology itself as a shield to uphold security. For example⁵³, robotic process automation (RPA) and machine learning could be used to protect data and, in some case, predict cyber attacks. However, there is another line of defence that is equally critical to warding off cyber criminals - your people.

Indeed, for a defence strategy to be truly effective, it is imperative for the people driving it to be empowered with the relevant cyber-related skills and knowledge. To this end, the government is calling for the private sector to lead this by *incorporating cyber security in their human capital training*⁵⁴ - a call that should be answered for the company's own well-being.

We see here another reason for upskilling, and with the government looking into *upskilling the workforce in specific areas related to the digital economy*⁵⁵ such as cyber security, data analytics and AI, we believe this will open up more opportunities for the country's workforce to learn new skills, while spreading awareness about the dangers of weak cyber security controls.

An obligation to build and sustain trust

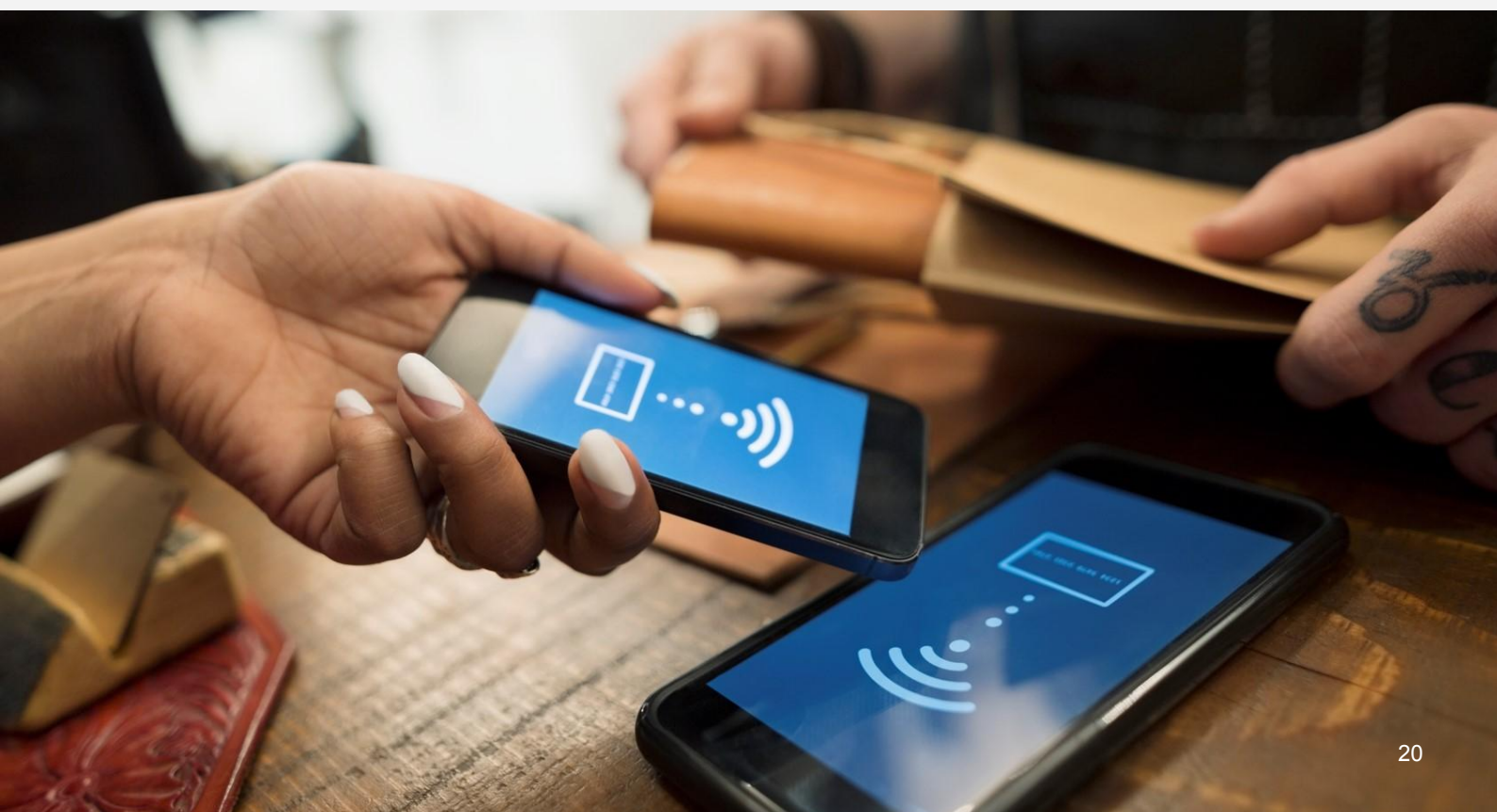
When consumers hand over their data, they are trusting businesses to keep their data safe. Businesses then have an obligation to ensure that trust is not misplaced.

For businesses, the consequences could be devastating if this matter is treated lightly, financial and reputational loss representing two likely outcomes. In the end, a company with a less-than-stellar reputation for data security would slowly but surely be forgotten by consumers, paving the way for their competitors to rise.

⁵³[You say you want a revolution? Then partner 4IR with cybersecurity. PwC, 23 October 2019](#)

⁵⁴[Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 73](#)

⁵⁵[Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 66](#)





Apply technology in crisis management and response

Digital
Economy
Blueprint
strategy

Strengthening safety and ethics in digital activities and transactions⁵⁶

Technology can be a company's greatest ally, but only when they are applied strategically. Knowing how to use them and setting an understanding of the purpose for which they are deployed will not only unleash efficiency and productivity as covered earlier, but also support companies in managing a crisis.

This was most evident in the early stages of the COVID-19 pandemic when companies had to implement remote working policies and digitise their supply chains after social distancing measures were announced.

If there's one thing the pandemic has taught us, it's that a crisis can strike any time. The best thing companies can do is to prepare for them to minimise potential risks and losses. With technology, mapping out an effective crisis plan has never been more achievable.

The tools themselves can be built and deployed to detect and stop suspicious activity, preventing a crisis from occurring. For example, PwC US has a digital tool⁵⁷ that can consolidate the end-to-end risk assessment process in one place, giving users a big-picture view of the company's financial risks. Having such a tool would no doubt prove useful in the fight against financial crime.

Technology can also be deployed to address one of our era's most pressing issues: the present environmental crisis.

Using technology responsibly to protect our environment

Much like protecting consumers' data privacy, companies deploying technology need to practice the same high level of responsibility in protecting our environment. Neglecting this practice may prove costly to businesses.

⁵⁶Malaysia Digital Economy Blueprint, Economic Planning Unit, 2021, Pg. 42

⁵⁷Risk proof, PwC

As noted in the [WEF report published in collaboration with PwC on the new nature economy](#)⁵⁸, the nature crisis poses a threat to businesses and the wider economy too. As a result of environmental destruction, one risk highlighted could be in the form of disruptions to an organisation's business continuity, as well as its operations and supply chain performance, given the organisation's dependency on nature.

The cost of turning a blind eye to environmental issues will also be felt across society, who will be directly affected by repercussions that impact health and well-being, such as haze and water contamination.

The country is no stranger to environmental issues, our experiences with water and air pollution, for example, signalling the strong need to address them through action.

In this regard, companies should adopt an approach that uses technology to their advantage. The speed and accuracy needed to avert potential environmental crises would be difficult otherwise.

For example, machine learning can train smart devices to [monitor and detect cyanobacteria](#)⁵⁹ in a small surface portion of freshwater, reducing the volume of algal blooms, which are harmful to human health.

AI can also be used to monitor and predict [air pollution levels](#)⁶⁰, improving air quality in urban areas and protecting the public from the dangers of toxic fumes.

Industrialisation may have impacted our planet negatively, but we now have the tools needed to reverse this. And individuals and businesses alike are responsible for taking action now for the sake of our earth and future generations.

⁵⁸[Nature Risk Rising: Why the Crisis Enveloping Nature Matters for Business and the Economy. World Economic Forum in collaboration with PwC, January 2020. Pg. 13](#)

⁵⁹[Fourth Industrial Revolution for the earth. Harnessing Artificial Intelligence for the earth. PwC, January 2018. Pg. 40](#)

⁶⁰[Fourth Industrial Revolution for the earth. Harnessing Artificial Intelligence for the earth. PwC, January 2018. Pg. 42](#)



- 1 Technology has disrupted traditional business models, and businesses across all sectors must adapt as technology continues to level the playing field, increasing market competition.
- 2 New skills are needed for people to work alongside technology in the Fourth Industrial Revolution, and businesses need to empower their workforce to thrive in their roles by implementing upskilling programmes that focus on both digital and human skills (e.g. leadership, empathy, resilience, agility) that will guide them in succeeding now and in the future.
- 3 Technology brings tremendous value to how we work and live, but they also make us vulnerable to threats if the proper cyber security controls are not in place - Data privacy and security should never be compromised, in order to strengthen trust.
- 4 A crisis can happen unexpectedly, but by knowing how to leverage technology, companies will be well positioned to prevent or minimise its impact.
- 5 Regardless of the type of technology and its intended purpose for deployment, it must be used responsibly - any exploitation must be avoided as the consequences could be damaging, contributing to an erosion of trust.





Be clear about your digital strategy

Your digital strategy needs to go beyond exploring new technologies in silos. Reinventing your business model and reviewing how you engage with customers should be part of the equation. With a clear digital strategy, you will be better positioned to identify the capabilities that will differentiate you from your competitors, and derive value from both additional revenue sources and cost-saving measures.



Ensure you have the required upskilling building blocks in place

Proper investment in upskilling will equip your workforce with the skills needed to thrive in a digital world. More than just teaching employees to code, an upskilling programme should align with your business needs. Look to the five upskilling building blocks to set your plan in motion: (i) Assess current and future business needs, and identify skills gaps and mismatches (ii) Build a future-proof skills strategy (iii) Lay the cultural foundation (iv) Develop and implement upskilling immediately, and ensure it is a business priority (v) Evaluate return on investment.



Build digital trust

There is no success in a digital world without trust. To be trusted, your cyber security and how you manage your stakeholders' data will have to be carefully established. Areas such as cyber security risks and governance, data protection, incident readiness and response, as well as privacy assessments, cannot be underplayed, as they not only have the power to determine your company's growth, but are also pivotal ingredients in building a secure digital society.



Be part of the solution to address social and environmental issues

Technology can come to our aid in times of crisis, as the COVID-19 pandemic has shown, where it made remote working possible and facilitated the digitalisation of supply chains. The types of crisis it can alleviate are far-ranging, extending to social and environmental issues like air and water pollution, and the emissions of greenhouse gases.

In moving forward with a long-term plan to confront these issues, a key point to consider would be how technologies can be scaled, as this would put us on the fast track towards achieving the Sustainable Development Goals (SDGs). Harnessed appropriately, these technologies can also open up new opportunities for businesses that are committed to improving their ESG management.

Conclusion

Our era is one defined by our ability to adapt. For businesses to remain competitive and relevant in the eyes of their stakeholders, they must move with the times. And that means being open and curious about how they can apply the use of technology into their business strategies.

It's not about investing in technology for the sake of it. It's about putting people first, thinking about how you can improve their lives with technology and meeting their needs, then letting that guide your decisions. Indeed, the importance of using technology ethically and responsibly cannot be understated, the disregard of which will only serve to lower confidence and weaken a company's market position.

No doubt the strategies and initiatives within the government's Malaysia Digital Economy Blueprint are extensive as they lay the foundation for the adoption of more advanced technologies in the country, a strategic effort to accelerate our digital economy which cannot be achieved alone. Support from the private sector is needed - support which, as a start, can be given by looking seriously into how they can transform themselves into digitally resilient companies with an upskilled workforce, as well as collaborating with the public sector in relevant initiatives and dialogues.

We look forward to working with the business community and public sector towards achieving the outlined goals, and await the positive impact this will have on the growth of our digital economy and the well-being of all Malaysians.





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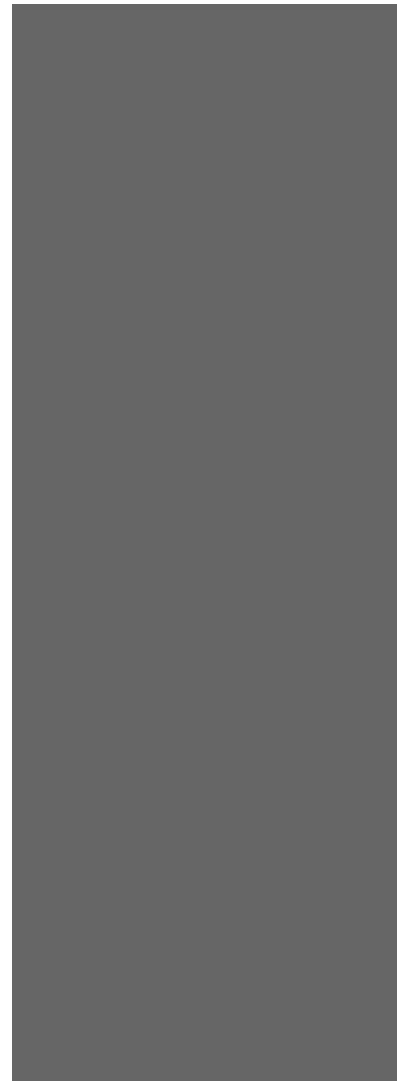
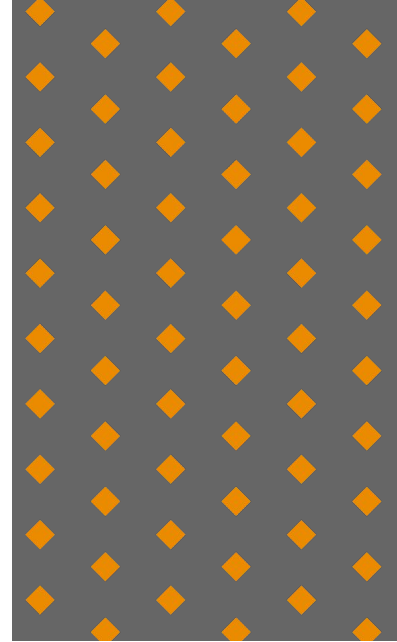
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