Asia Pacific's Time

We must act now

November 2020

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New ways of building a collective future

Foreword

Note from PwC Asia Pacific Chairman and Senior Partners

Asia Pacific is at an important juncture in its journey. The fundamentals that underpinned the region's dramatic growth and prosperity over the past three decades are not sufficient to carry us through this era of continuous disruption. Governments, businesses and society all need to take a more proactive approach to secure the region's future and fulfil its potential towards greater and more inclusive development and prosperity.

We have heard from business leaders across the region, the severity of the challenges they now face, and the importance of reshaping the direction of their organisations. However, many have feelings of caution and apprehension in making decisions in this time of uncertainty. As we all look beyond COVID-19, PwC aspires to alleviate some of this anxiety and ambiguity, and ultimately help our clients build trust and confidence with their stakeholders.

Following the recent signing of the world's largest trade agreement, the Regional Comprehensive Economic Partnership (RCEP), this first report in our series of perspectives on the Asia Pacific region, sets out five growth pillars that will enable a resilient future and the new roles key stakeholders will have to play. Acknowledging the immense diversity across the region, the report presents growth strategies for Asia Pacific whilst recognising that local customisation is not only required, but is critical for successful implementation.

We are committed to working with you on this journey. PwC's purpose of building trust in society and solving important problems is even more relevant now, as individuals, businesses, society and nations, look to recover and rebuild for an inclusive future. As Asia Pacific emerges from 2020, arguably the most challenging year of this century so far, stakeholders from across the region need to rekindle hope by breaking down barriers and working together to shape a brighter future for generations to come. The luxury of time is over, we must act now.

Raymund Chao
PwC Asia Pacific Chairman
Chairman, PwC China

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Chief Executive Officer, PwC Australia

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Country Senior Partner, PwC Vietnam

Note from Parag Khanna

There is no more important time-zone than “Asia time.” Though it spans several hours, it encompasses fully half the world’s population and nearly half of its GDP. This is not a transitory fact but the abiding reality of the 21st century world.

Particularly since the 1997-98 Asian financial crisis, Asian governments have learned to respond rapidly to economic shocks and pursued monetary, fiscal and trade policy reforms that have favoured accelerated regional interdependence. These steps proved crucial to cushion the impact of the 2008 global financial crisis and laid the foundation for the current transition towards regional trade integration and supply chain shifts, services sector growth and digitisation.

This new report strongly advocates for pushing ahead with all of these and other important areas: digital adoption at the government, business and consumer level; supporting enterprises with accessible finance and regional expansion; strengthening process innovation in supply chains and distribution networks; upskilling the workforce through partnerships across the education and industrial sectors; and investing in climate resilient infrastructure from construction to agriculture.

Another great strength of this publication is emphasizing a multi-stakeholder approach in which policy and execution are collectively determined through transparent cooperation between governments, corporates, and civil society actors. Asia has leapfrogged in economics and technology. It can ensure its continued success through governance innovation as well.

Dr. Parag Khanna

Founder & Managing Partner, FutureMap,
Author, *Connectography and The Future is Asian*


Singapore

Executive Summary

Time to act

Tokyo, Japan

Executive Summary

Time to act

Over the past three decades, the Asia Pacific region has grown significantly based on strong fundamentals, including expanding consumer markets and a maturing manufacturing base that attracts foreign investment. These factors enabled the region to triple its share of world Gross Domestic Product (GDP) to almost 40 per cent since 1960, with per capita income also rising sharply, leading to the creation of a new middle class and a large domestic consumer base. The percentage of the population living in extreme poverty has steadily declined and, coupled with great improvements in healthcare and education, average life expectancy and education levels have grown. Technology and globalisation have played critical roles in this rapid growth, resulting in Asia Pacific now accounting for more than one third of global merchandise trade.

Historically, these growth factors have enabled the region to absorb and overcome disruptive events such as the SARS outbreak, trade wars and environmental disasters, all whilst dealing with political and social instability, as well as weak infrastructure in many countries. These factors also provided the region time to transition from relatively passive growth, to being more proactive and self-determined going forward, addressing opportunities such as Industry 4.0, regional growth and innovation, labour reskilling and environmental sustainability.[1]

However, the impact from COVID-19 has accelerated the necessity to act.

The signs of slowing growth were becoming evident before the pandemic, with trade protectionism and geopolitical tension already causing shifts in the markets, pushing companies to adopt new strategies to rebalance their supply chains. Furthermore, changing demographics in various parts of the region are raising employment and productivity concerns. While some economies need to skill or re-skill their rising youth population to create employment opportunities, others face the challenge of an ageing workforce that needs urgent attention.

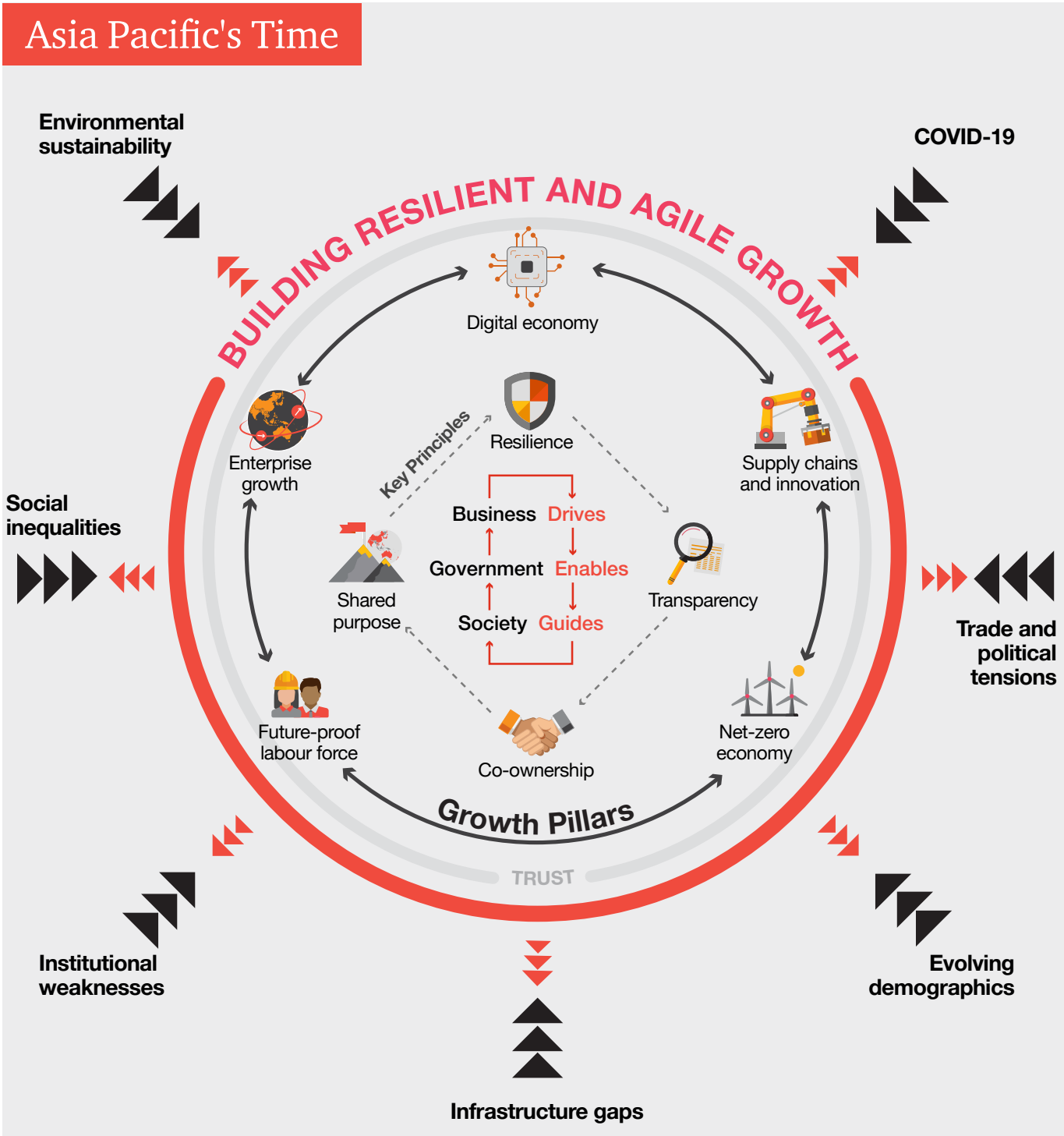
Finally, the disproportionate impact of climate change is affecting food security in the region, and the population's overall health is under threat from environmental disasters and human activity, such as harmful emissions and improper waste management. While Asia Pacific has shown great resilience in the face of past challenges, gradual change is no longer enough. Almost overnight, opportunities have transformed into urgent needs that must be addressed through strong leadership with a fresh vision, supported by policies that facilitate government, business and societal collaboration.

Asia Pacific is now at a crossroads. The region can no longer hope that the factors which drove its historical strong growth will be sufficient to steer it through these challenging times. Instead, stakeholders must take new actions to supplement global investment with visions and strategies that are centred on Asia Pacific. The era of passive growth is over; it is now time to act. It's Asia Pacific's time.

The time to act is now

Asia Pacific needs to drive action. The COVID-19 pandemic has severely impacted the region, but it has also provided opportunity for stakeholders to realign their future path based on strategic intent and focus. This will require collective action, starting with establishing a bold vision centred on sustainable, resilient growth, that also embraces cross-border collaboration and investments. It will require governments, businesses and society to be prepared to step away from some approaches that made them successful in the past and think about what they need for today and tomorrow. Stakeholders must use the pandemic to re-think their priorities and focus on areas most relevant to the region's future success.

This report outlines five growth pillars that underpin the future of Asia Pacific. These pillars are positioned as solutions to the challenges affecting the region and accentuate the strengths that can help it better withstand the uncertainties of tomorrow. Achieving this resilient growth will require stakeholders to drive greater regional attention to their target markets and value chains, while focusing on digitalisation and sustainability through various operational areas. People and society will remain the most critical factors, and actions to upskill the existing and future workforce and build trust among the population need to be considered and incorporated at every step of this journey.



The five pillars outlined in this report are:

1 Advancing the digital economy

Pushed by changing industry dynamics and consumer trends, and accelerated by the pandemic, companies now need to advance the process of digital adoption in order to stay competitive. To achieve this, they need to first identify the right areas for digitalisation and then prioritise suitable deployment of technological solutions at appropriate junctures across their value chain. However, such rapid digitalisation also leads to security and data-related risks that need immediate attention. This requires companies to adopt preventive measures on cyber resilience, with governments facilitating regulations and public-private partnerships to defend against cybercrime.

2 Enabling regional enterprise growth

With global uncertainty rising, enterprises need to take a proactive role in expanding their regional presence to successfully tap into the growing opportunities across Asia Pacific. This can be achieved by adopting a capability-driven regionalisation strategy based on three foundational areas: operational performance, product and process innovation, and go-to-market excellence. Digital adoption, leveraging partnerships, and strengthening local talent and culture are also critical, serving as three key enablers for companies to grow regionally and drive faster execution. Regional expansion in the services sector is a high-potential area that needs special focus. Growing digitalisation, accelerated by COVID-19, is creating new revenue opportunities for regional firms, especially in areas such as education, healthcare, entertainment, and Information and Communication Technology (ICT) services. Businesses and governments therefore need to focus their efforts towards boosting trade in services across the region.

3 Rebalancing supply chains and fostering innovation

Growing opportunities across Asia Pacific, rising uncertainties due to trade tensions, and the impact of COVID-19 have made it imperative for companies to restructure their global supply chains and transition to new regionally integrated networks. These technology-enabled, regional supply chains will help businesses better manage their procurement, production and distribution networks to achieve higher transparency and greater resilience. A rapidly changing environment also necessitates reshaping innovation ecosystems to develop hubs that encourage participation from multiple stakeholders — where businesses and start-ups can work together to drive the development of new products and solutions, governments can act as facilitators, academic bodies as collaborators, and funding bodies as enablers to create and promote future champions.

4 Expanding and future-proofing the labour force

Achieving growth in Asia Pacific will require a relevant and skilled workforce, both today and in the future. This can be achieved through reskilling programs that align to the specific needs of companies and employees, while encouraging broader partnerships between government and industry to drive upskilling effectiveness. Governments will have to take a lead in realigning the education system, first by identifying its priorities for future growth and the associated sectors and skills required, followed by articulating the new roles and responsibilities that everyone will have, including those in education, business, and society.

5 Building climate change resilience towards a net-zero future

Asia Pacific is highly vulnerable to climate change and therefore needs to champion the cause and drive action to create a more sustainable future. The first focus needs to be on building solutions for a circular economy to move towards net-zero climate impact, by promoting collaboration between governments, businesses and society to reduce our environmental impact. The second focus is on the need to promote innovation and greater adoption of agritech solutions across the developed and developing parts of Asia Pacific to enhance agricultural productivity and achieve greater food security in the region.

The five pillars are not mutually exclusive but interconnected. For example, advancing the digital economy will require upskilling the workforce and will also be critical for achieving sustainability, as well as building regional hubs and innovation ecosystems. Thus, to achieve impact, the five pillars need to be considered holistically for execution, while being customised and adapted based on the maturity of the specific country and environment in which they are being implemented.

Need for a collective effort by all stakeholders

These pillars come with their own sets of considerations and dependencies. Geopolitical tensions, the impact of the COVID-19 pandemic, infrastructural and institutional voids in markets, as well as constraints around issues such as work-force mobility will take time to overcome and can limit the pace of growth that these pillars promise to achieve for the region. However, this should not limit action; Asia Pacific must take action now. Waiting for a time free of uncertainty is futile. Businesses and governments must live with complexity and progress towards resilience. Successful implementation of these pillars can only be achieved through a collaborative approach by all stakeholders centred on re-establishing trust through four key principles.

1 Shared purpose

Balancing the interests of all stakeholders, to jointly achieve not only short term-goals but to also focus on the long term wellbeing of Asia Pacific.

2 Resilience

Building the capacity to withstand future shocks, and the ability to adjust for, and recover from, sudden fluctuations.

3 Transparency

Efficient information sharing of government policies and business practices while clearly communicating their impact on society and environment.

4 Co-ownership

Each party contributing through its strengths to collectively achieve results that are individually not possible without inefficient use of time or resources.

All stakeholders must perform complementary roles in building a robust future for Asia Pacific, with businesses driving execution and providing new solutions that overcome the existing and emerging challenges in the region. Leading businesses should drive the digitalisation of value chains, prioritising adoption in areas that can enable stronger reliability and agility, while managing risks and ensuring cyber readiness. Companies also need to be more proactive in expanding across the region, by enhancing their core capabilities to improve operational and supply chain performance, innovation and go-to-market excellence. Finally, upskilling and adopting a sustainable approach to products and business models will be critical for success.

To support this, governments must play an enabling role by working with other stakeholders to define a holistic and inspiring vision for the future and backing that up with effective and aligned policy-making. Government support is also crucial to boosting regional trade in services, reducing trading costs, strengthening regulatory cooperation and sharing technical policy assistance across markets. Another critical role for governments will be to support upskilling, as well as enabling access to capital and expertise for firms, especially small and medium enterprises (SMEs) so that they can expand regionally as well as adopt new technologies.

Governments and businesses need to note that while planning and strategising is important, the speed and agility of execution makes the difference. Hence there needs to be greater empowerment, responsibility and accountability at all levels, coupled with a focus on simplified implementation, moving away from unnecessary complexity and red tape. All policies and actions need to consider society at its core.

The future of the region needs to be shaped by small, aligned steps that improve quality of life, not by sudden, major changes. It is these series of micro-decisions that will drive most impact, as well as forge the legacy for government and business leaders for the years ahead. To achieve this, constant guidance is needed from society. Citizens need to shift from being passive consumers to active partners, using multiple channels — the most obvious being social media — to ensure governments and businesses hear how demands and priorities are changing and understand the need for constant dialogue to ensure there is relevance to, and balance with society.

Binding all this is a crucial need for stakeholder collaboration that extends beyond individual nations. Collective action at a regional level will become imperative to dealing with the opportunities facing Asia Pacific and strengthening prospects for balanced economic and human development going forward. This interregional collaboration needs to be action-oriented and should not be limited only to participation from government leaders. Sharing expertise and working together on any developmental area, whether it is healthcare, education, trade, infrastructure development, e-commerce, or others, does not require a top-down approach. All countries and participants have a role to play, ranging from individual entrepreneurs to small, medium and large businesses, along with government and multi-lateral agencies, academic institutions, and social sector organisations.

Moving forward

Asia Pacific faces an immediate need to collectively move towards a new future. Guided by a common purpose and enabled by technology, the region can potentially achieve a faster pace of positive change and generate greater impact than ever before. This will require a unified approach, and therefore it is critical that governments, businesses and society collaborate and work together to further accelerate the adoption of these five pillars. Restoring trust among populations and societies will also be central to execution, and stakeholders need to adopt the key principles of a shared purpose, resilience, transparency, and co-ownership. The situation is urgent, but a bold vision and an open mind-set can help achieve inclusive, sustainable and resilient growth for the billions of people residing in Asia Pacific.

The potential of the Asia Pacific region to positively impact the rest of the world is immense. The region can deliver sustainable and inclusive growth by working closely with local, regional, and global stakeholders."

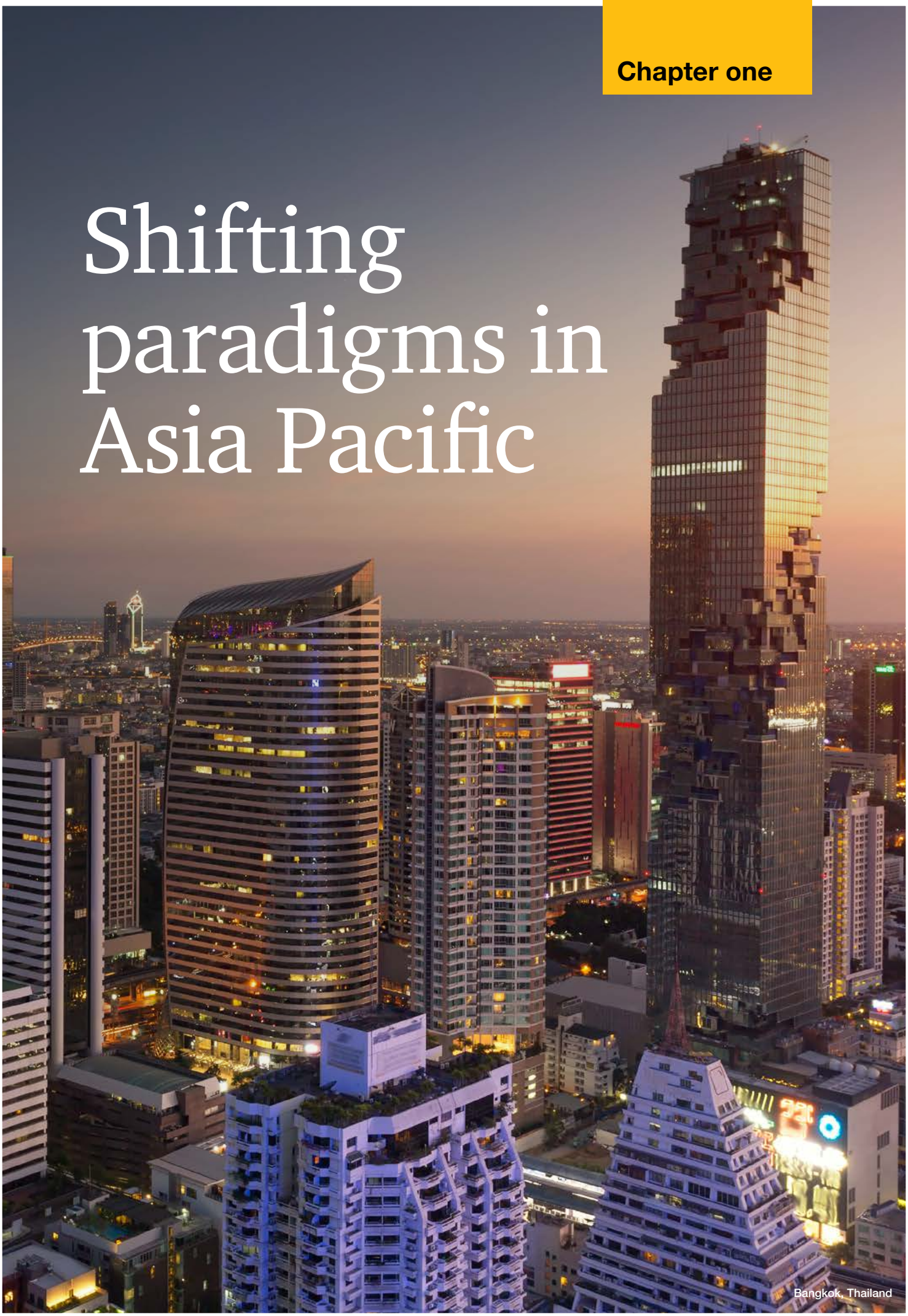
Bob Moritz

Global Chairman of the PwC Network

Manila, Philippines

Chapter one

Shifting paradigms in Asia Pacific



Bangkok, Thailand

Chapter one

Shifting paradigms in Asia Pacific

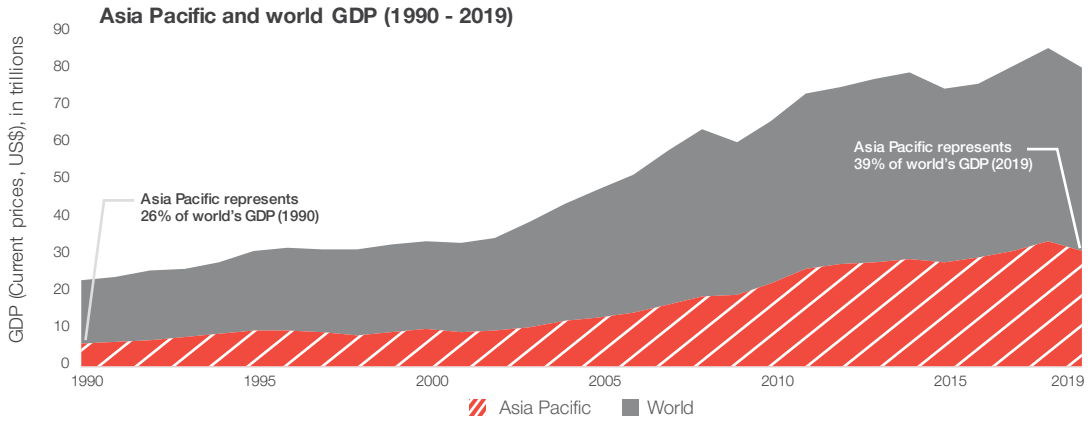
Asia Pacific on the move

Asia Pacific* has recorded strong economic growth over the past six decades — undergoing a major economic transformation from being an agriculture-dependent, low-income region in the 1960s, to a leading manufacturing centre and exporter worldwide — with rising megacities, a growing workforce and a formidable consumer base. Rapid industrialisation since the 1990s helped establish the region as a global manufacturing powerhouse, featuring four of the world's ten leading manufacturers (China, Japan, South Korea, India), and representing 40 per cent of global manufacturing value-add in 2019.

Asia Pacific has over the years become a major supplier of products, focusing not only on low-tech segments such as textiles and footwear (63% of world exports) but also on high-tech products such as electrical machinery (66% of world exports).[2]

As shown in figures 1a and 1b, economic growth figures for Asia Pacific have been favourable in the recent past, consistently staying above the world average since the Asian financial crisis of 1997-98. Consequently, the region's share of world GDP has tripled from 13 per cent in 1960 to 39 per cent in 2019.[3]

Figure 1a Economic growth trends in Asia Pacific and the world



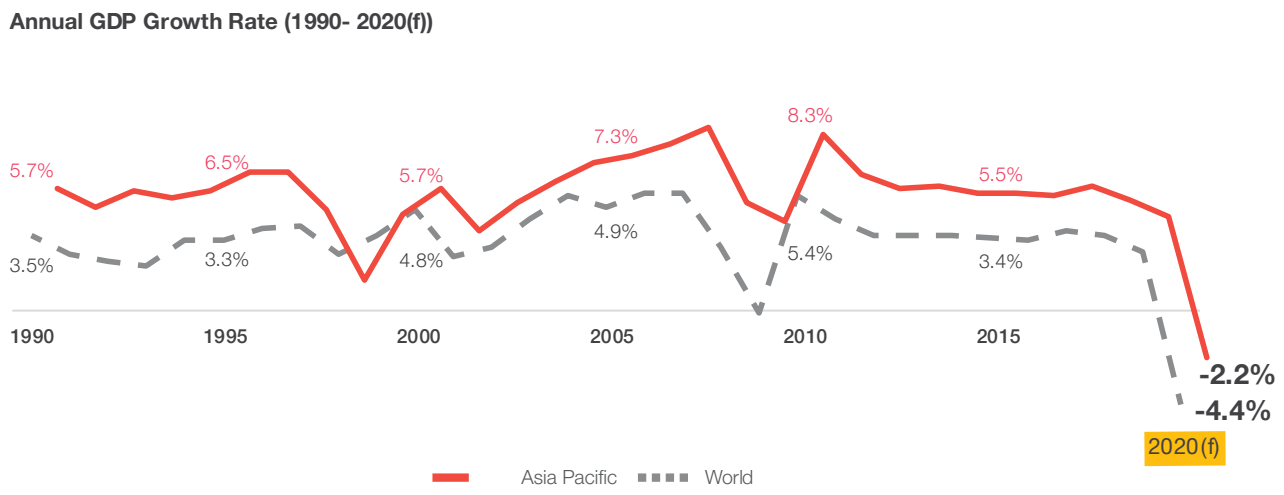
Source: United Nations

*Asia Pacific is defined by the United Nations as consisting of the following sub-regions and key markets:

- East Asia (markets such as China, Japan, South Korea, among others)
- Southeast Asia (markets such as Indonesia, Thailand, Singapore, Malaysia, the Philippines, Vietnam, among others)
- South Asia (markets such as India, Bangladesh, Pakistan, Sri Lanka, among others)
- Oceania (markets such as Australia, New Zealand, among others)
- West & Central Asia (markets such as Saudi Arabia, the United Arab Emirates, Kazakhstan, among others)

However, the International Monetary Fund (IMF) excludes Middle Eastern countries such as Saudi Arabia from its definition, and therefore figures from the IMF need to be considered accordingly

Figure 1b Economic growth trends in Asia Pacific and the world (continued)



Source: International Monetary Fund (October 2020)

Multiple factors have defined the region's historical rise into global prominence, including its human capital, availability of financing, growth in trade flows and rising adoption of technology in recent years.

People power

Consistent economic growth has helped strengthen the region's human capital, with Asia's per capita GDP rising significantly from US$1,729 in 1990 to US$6,982 by 2018. Achievements have also been made in improving the people's wellbeing. According to the United Nations, Asia Pacific has witnessed the fastest rise in human development indicators worldwide in the past three decades. Population under extreme poverty in Asia (earning less than US$1.9 per day) has reduced from 68 per cent in 1980 to only 7 per cent in 2018. Improvements in income, health and education have in turn resulted in a stronger workforce and consumer class. The region today constitutes a majority (57%) of the global working-age population. Rising income and urbanisation have further resulted in a growing middle class – increasing from only 13 per cent of Asia's population in 1980, to around 70 per cent at present. A growing educated workforce has helped attract global investments and an expanding middle class has enhanced consumer spending, further energising the region's economic rise. However, while regional averages show significant success, growth has not been uniform across regional markets. This necessitates greater focus by stakeholders on driving more inclusive growth in the future.[4]

Capital strength

Access to capital has been a major factor behind the region's historical growth. Gross domestic savings for Asia stood at 36.2 per cent over 2010-18, far above the world average of 25 per cent. Inward foreign direct investment (FDI) has also emerged as a major source of financing since the 1990s, with developing Asia attracting the largest share (34%) of inflows in 2019. While global FDI is projected to fall in 2020, there is potential for intra-regional investments to meet financing gaps, considering Asia Pacific is a major contributor to outward FDI as well (43% share in 2019).

However, high and rising debt in some regional economies have also become points of concern. While such issues are somewhat abated by strong financial reserves in these markets, there is a need for governments to strengthen domestic policies that foster debt transparency, improve supervision of the financial sector and reduce currency risk exposure during uncertain times.[5]

Trade dominance

Termed as the third wave of globalisation, global trade volumes have grown significantly since 1995, with Asia Pacific rising to become the world's largest merchandise trading partner. While global trade began slowing down after the 2008-09 financial crisis, Asia Pacific has sustained its strong presence through improvements in connectivity and new trade coalitions. The number of Free Trade Agreements (FTAs) signed by Asia Pacific nations has multiplied five times from 51 in the year 2000 to 261 by Q1 2020, including multilateral agreements such as the 11-nation Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) signed in 2018. Industrialisation and technology investments have also driven a move away from commodities towards higher value-adding exports, with trade in intermediate goods becoming a key element of Asia Pacific's growth story. However, rising global trade concerns now require improving regional cooperation.[6]

Liza Maimone

Chief Operating Officer, PwC Australia

Strong socio-economic fundamentals have historically underpinned Asia Pacific's growth, but in an era of ongoing disruption the region needs to quickly adopt a fresh approach to fully achieve its potential."

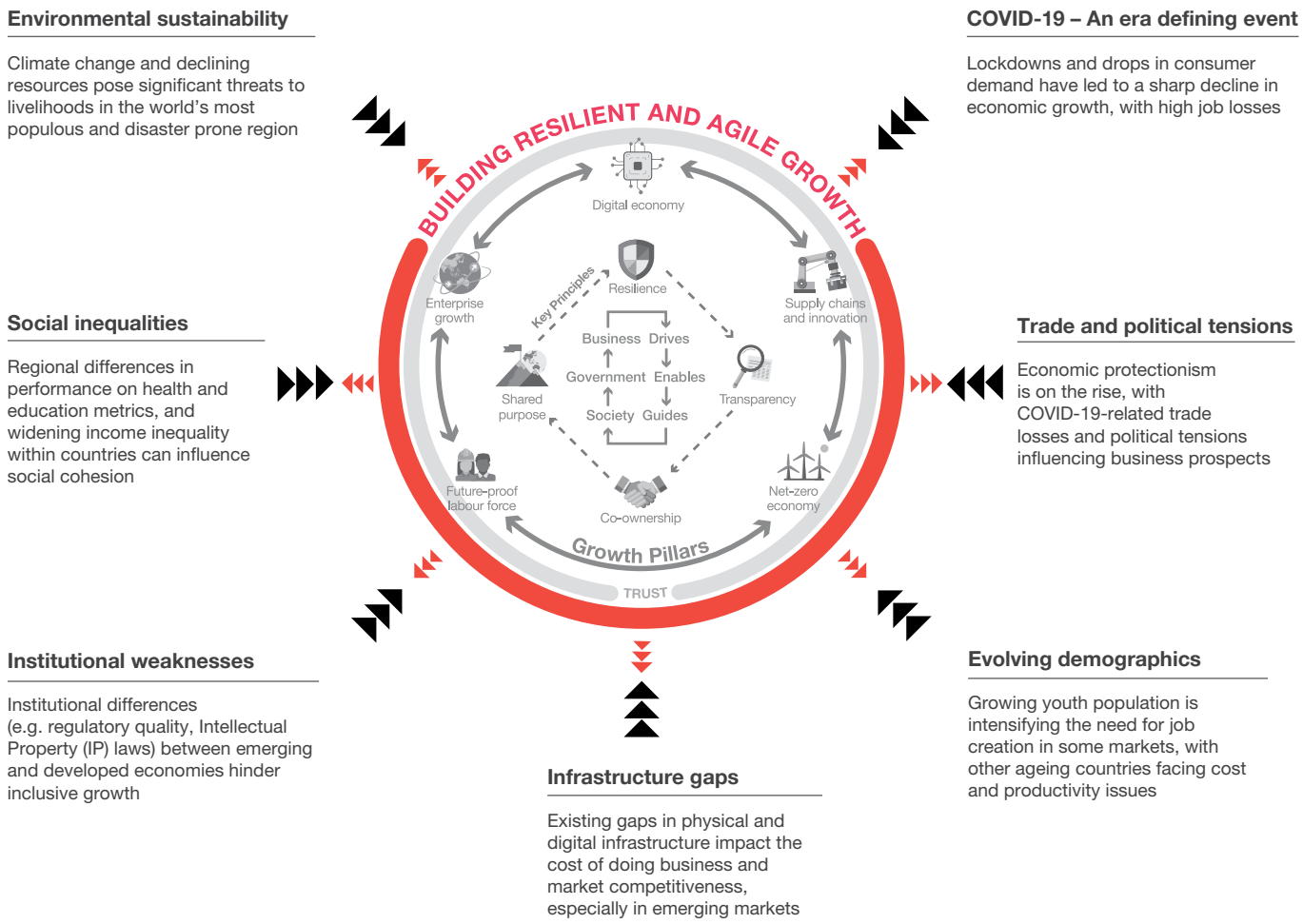
Technology adoption

The number of internet users in Asia Pacific has grown sharply from 9.5 per cent of the population in 2005 to 48.4 per cent in 2019. The mobile channel has in particular emerged as a major platform, with active mobile broadband adoption rising to 3.8 billion subscriptions by 2019 — far more than the 2.6 billion combined in the rest of the world. This growth has driven new ways of doing business, further expanding consumer spending while improving the reach of essential services. Besides being bolstered by the adoption of technology, Asia Pacific has also strengthened its technical capabilities to innovate, with Singapore, South Korea, Hong Kong SAR, China and Japan featuring among the top 20 innovation economies worldwide in 2020. This expanding pool of digitally savvy consumers and technically skilled employees could become a new growth platform for the region, but it requires stronger stakeholder collaboration to maximise the scale and efficacy of the region's efforts.[7]

Threats to Asia Pacific's growth

While Asia Pacific has certainly made its mark on the world stage and presents many growth opportunities for stakeholders across the region, disruptions caused by COVID-19 have shaken historical growth models and seriously questioned the future applicability and viability of traditional growth strategies. These disruptions, along with emerging issues (trade and political tensions, changing demographics) and existing challenges (infrastructure gaps, institutional issues, income inequalities and sustainability), have created an urgency for stakeholders to act now.

Figure 2 **Key challenges impacting growth prospects for Asia Pacific**



Source: PwC analysis

COVID-19: An era-defining event

The COVID-19 pandemic has strongly impacted Asia Pacific's growth projections, with the ensuing market lockdowns and resulting drop in consumer demand expected to generate sharp declines in annual GDP growth — a fall of 2.2 per cent on average across the region in 2020 (as per October 2020 estimates). Though the region is expected to recover and achieve positive growth in 2021, it will take longer for GDP output to reach pre-pandemic levels for many nations. Forecasts also remain uncertain and figures could vary based on how the pandemic progresses.[8]

Macroeconomic trends are declining with COVID-19 having a major impact on government spending, corporate growth and individual livelihoods. Governments are being made to re-prioritise budgetary allocations and increase debt, spending to minimise the initial shock and enable survival for the most vulnerable. Companies are facing a shortage of working capital, while needing to pay employees and service loans, with small and micro enterprises (<50 employees), in particular, being severely impacted. Many segments of society are also facing the threat of an uncertain future, with those in the informal economy, daily-wage earners, home-based workers and migrant labourers already seeing a significant decline in their incomes.

According to the Asian Development Bank, over a three to six month period, more than 100 million jobs could be lost in Asia due to COVID, leaving many households in need of external support. Going forward, more people-centric considerations such as looking after personal and family wellbeing, or improving access to education and healthcare are expected to influence consumer behaviour, business investments and government policy significantly. Besides focusing on enabling an economic recovery, Asia Pacific also needs to be better prepared for similar disruptions in the future – requiring targeted interventions to reduce an economic divide that has been widened by COVID-19.[9]

Trade and political tensions

Trade protectionism has been rising globally, leading to new growth risks for export-driven economies. According to the World Trade Organization, global markets imposed 102 new trade-restrictive measures between October 2018 and October 2019, including tariff increases, quantitative restrictions, stricter customs procedures, import taxes and export duties. The World Trade Uncertainty Index further highlighted uncertainty in global trade policy, reaching, by the end of 2019, 17 times the peaks last seen in the 1990s. Asia has also seen a decline in trade, falling from 10 per cent growth in 2018 to -4 per cent in 2019.[10] A projected drop in trade of goods caused by the pandemic (between 13% and 32%, based on the severity of the scenario) has further worsened the situation for trade dependent economies.

While the economic ties of trade were historically meant to mitigate geopolitical risks, they are now causing a broader fracturing into a multi-nodal world. Global trade tensions, already high are expected to intensify in the aftermath of the COVID-19 crisis. Rising geopolitical and security concerns in different parts of the region are also expected to make businesses feel uncertain over policy direction and therefore seek new partnerships to reduce their overdependence on specific partners.

Jochen Schmittmann

Deputy Head IMF Office for Asia and the Pacific

COVID-19 has deeply impacted Asia Pacific economically. This has led to cash flow disruptions for many companies, millions of jobs lost and a widening education gap for students, which can have a long term implication on economic and human development. Fiscal stimulus has been critical to get us through the crisis. In countries with limited fiscal capacity, governments need to create room by prioritising crisis related spending and reducing wasteful spending."

The headwinds of protectionist policies are expected to reappear as a more immediate reaction to a COVID-19-induced economic slowdown. In view of these evolving trends, regional economies that rely more heavily on trade (high trade to GDP ratios) need to rebalance their future growth models, exploring new avenues of growth with a greater sense of urgency.[11]

Evolving demographics

Evolving demographics are leading to dichotomous growth priorities in Asia Pacific, with a set of markets continuing to see a surge in their younger population, and the other facing a growing older proportion. The working-age population in India, Indonesia, Philippines, Malaysia, Myanmar, Vietnam, Cambodia, Lao PDR and Brunei Darussalam is projected to continue rising, collectively adding 14 million people to the workforce every year through 2030. While this rise is popularly quoted as a "demographic dividend", realising the positive impact of such a boom also requires new jobs — not only in quantity but also in quality. Job-creation already remains a major issue in these markets, and a projected rise in job seekers, coupled with a COVID-19-induced economic slowdown, could make it more challenging in the future.[12]

On the other hand, Singapore, Hong Kong SAR, Thailand, South Korea, Japan, New Zealand, Australia and China are facing an ageing demographic, potentially leading to slower growth in labour productivity and rising healthcare and retirement costs. Old-age dependency ratios for these countries are projected to surpass the world average (18%) by 2030, with Japan leading at 53 per cent. Rising social costs, coupled with a COVID-19-driven reduction in tax revenues and a need for stimulus spending, could negatively impact fiscal stability in the years ahead. To address widening workforce gaps, these markets need to start relying more on digital solutions and inward migrant flows. Skill development also requires more attention across the region, with the emergence of next-gen technologies necessitating new skills to remain competitive. A skills mismatch could cost US$4.3 trillion in unrealised revenue across Asia Pacific by 2030, highlighting the vital need to act.[13]

Infrastructure gaps

Infrastructure gaps are another major concern, impacting industries such as power, utilities, the social sector (housing, health and education), logistics and digital connectivity. Besides limiting the productive capacity of the workforce, infrastructure gaps increase the cost of doing business for companies, thereby impacting competitiveness while limiting market access and social wellbeing. The scale of investments required is quite significant. According to the Asian Development Bank, developing nations in Asia alone need to invest US$1.7 trillion per year in infrastructure over the period spanning 2016 to 2030, with the power and transport sectors accounting for more than 80 per cent of the requirements.[14]

Besides this, improvement in digital infrastructure is necessary to drive adoption of new operating models that enhance growth while building resilience. Countries need to strengthen their digital backbone and data centre infrastructure to improve local and international connectivity, while investing in new devices and digital security measures that support emerging technologies. According to the Asian Infrastructure Investment Bank, with growing online adoption and the advent of Industry 4.0 solutions and 5G connectivity, annual investments worth US$241 billion are needed to meet regional requirements by 2030, rising to US$512 billion by 2040. It is essential that governments review their investment priorities to drive infrastructure development and lay the foundation for future growth. These investments need to be further supported by greater intra-regional collaboration to address needs for financing and project management expertise.[15]

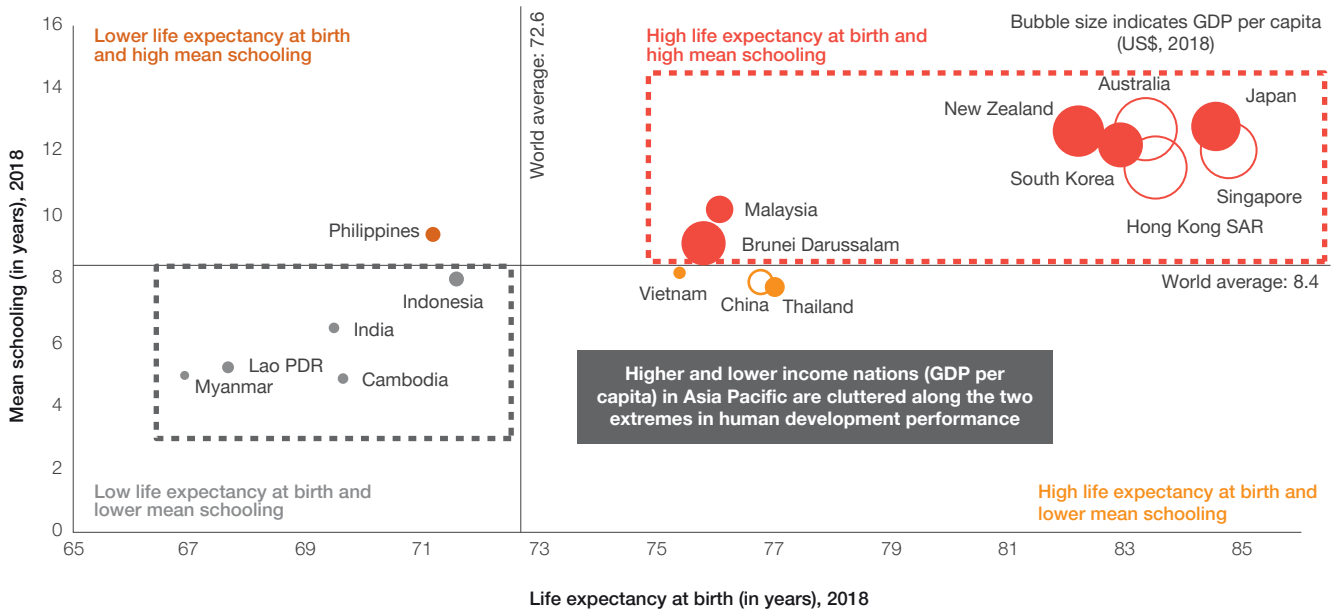
Institutional weaknesses

To help achieve more inclusive growth, bridging the institutional differences between regional markets needs careful consideration. For example, in terms of regulatory quality, while economies such as Singapore, Hong Kong SAR, New Zealand and Australia were among leading global performers on the World Bank's Governance Indicators (2019), other countries such as China, India, Indonesia and Vietnam featured below the top 100 markets worldwide. Similarly, strength of the innovation ecosystem denotes a major growth driver for global economies, with the presence of robust intellectual property (IP) laws being key to attracting investments. There is significant scope for improvement on this front as well. According to the 2020 International IP Index, Japan, Singapore, South Korea and Australia were the only Asia Pacific markets ranked among the top 15 performers globally, while Vietnam, Thailand and Indonesia were ranked much below.[16]

Improving regional performance on such parameters has become necessary, as institutional gaps could weaken investor confidence and the region's growth pace, and more so during periods of global uncertainty. It is also essential to keep governance up to date with a rapidly evolving world, such as by boosting technology adoption to improve the scale and efficacy of public services. Existing regional disparities showcase a unique opportunity for governments in developed markets to now take a lead on this front, and work with their developing counterparts to strengthen their quality of policy-making and governance standards.

Seoul, South Korea

Figure 3 Performance of Asia Pacific markets on health, education and income related parameters



Source: United Nations Development Programme

Social inequalities

Challenges relating to social inequality remain significant for the region, and within individual nations as well. While Asia Pacific as a whole has moved towards prosperity, differences remain in the economic and social wellbeing of individual markets (see figure 3), which requires a greater focus on delivering more inclusive growth. Income inequality remains a growing concern, with the top 10 per cent of income earners representing a significant 47.5 per cent of national income in Asia – and an even higher 56.6 per cent in the Pacific countries. Over the past few decades, the inequality gap has also been widening in leading markets such as China, India and Indonesia, indicating the need for new ways to make the benefits of economic growth permeate the bottom of the pyramid.[17]

Asia Pacific needs to prioritise and accelerate digitalisation, skills development and innovation in order to capitalise on shifts in global value chains and maintain its strong economic growth."

Sridharan Nair,

PwC Asia Pacific
Vice Chairman, Markets

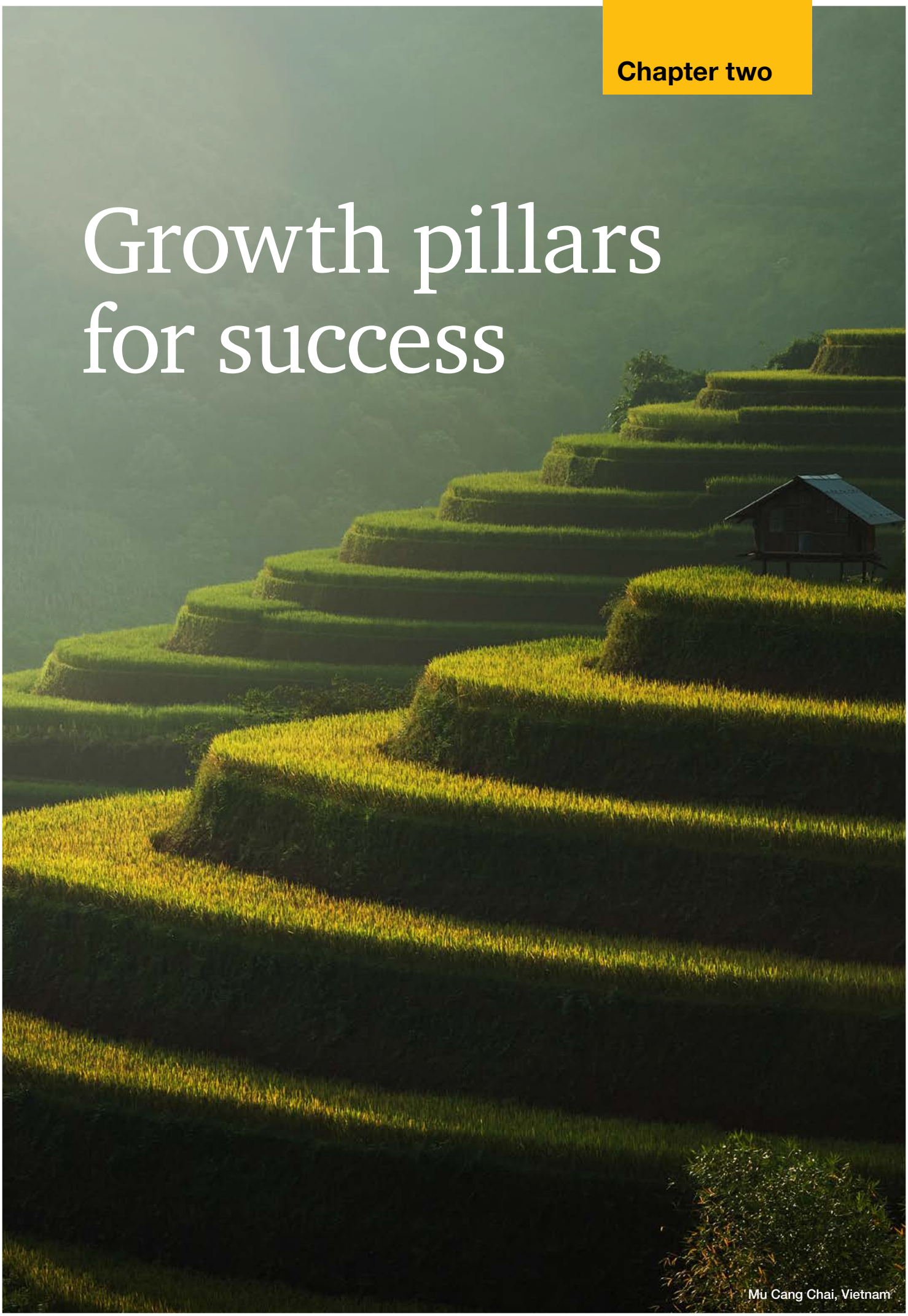
Environmental sustainability

Environmental challenges pose serious growth risks for the region. If left unchecked, climate change and its negative impact on resource availability, crop yields and cross-border trade could shrink the regional economy by 2.6 per cent by 2050 unless urgent interventions are made to existing ways of working. Almost half of the region's population is today estimated to be living in low-lying coastal zones and flood plains — areas that are increasingly at risk of flooding, leading to damages to infrastructure and livelihoods. Frequent weather disruptions are also a concern in terms of food security. According to the United Nations, annual economic losses due to natural disasters were US$675 billion (or 2.4% of regional GDP) in 2019. Of this, 60 per cent was represented by drought-related agricultural losses, which impacts the rural poor disproportionately and could further widen income disparities in the region.[18]

While historically Asian governments may have prioritised economic potential over environmental sustainability to generate consistently high GDP growth, climate risk mitigation is now a fundamental necessity to protect businesses and save livelihoods. Being a populous and disaster-prone region, climate change threats are higher for Asia Pacific than any other region worldwide. The region therefore needs to take a leading role in generating awareness and driving global action towards creating a net-zero economy and achieving a sustainable future.

Chapter two

Growth pillars for success



Mu Cang Chai, Vietnam

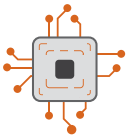
Chapter two

Growth pillars for success

With the advent of the COVID-19 pandemic and a growing burden of managing other existing and emerging challenges, areas that have been previously considered to be opportunities have transformed into urgent needs, requiring regional stakeholders to shift from traditional approaches to building new growth pillars for the future.

Five key pillars will be critical to Asia Pacific's journey over the next 10 years. Each of these pillars cover two aspects — or sub-pillars — that highlight areas of intervention that need to be prioritised to achieve a strong and visible impact in the future.

1



Advancing the digital economy

a. Building digital value chains for resilience

b. From digital risk to digital trust — collectively enabling the pathway

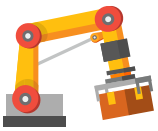
2

Enabling regional enterprise growth

a. Propelling companies for growth within Asia Pacific

b. Boosting regional trade in services as a new growth lever

3



Rebalancing supply chains and fostering innovation

a. Developing balanced and resilient regional supply chains

b. Fostering a collaborative innovation ecosystem

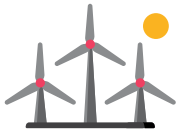
4

Expanding and future-proofing the labour force

a. Upskilling today to be relevant tomorrow

b. Preparing the employees of tomorrow

5



Building climate change resilience towards a net-zero future

a. Building solutions for a net-zero circular economy

b. Adopting technology to address food and agriculture concerns

These pillars act not only as solutions to regional challenges, but also as levers to accentuate Asia Pacific's strengths, thus enabling the region to emerge as more competitive in the uncertain world of tomorrow. Since impact from these pillars is holistic and far-reaching, all stakeholders — governments, businesses, and society — to join forces to deliver change.

Delivering noticeable transformation in a region as extensive and diverse as Asia Pacific is not expected to be straightforward, and combining this with the need to ensure a robust recovery from the health and economic crisis only complicates it further. However, the COVID-19 pandemic has also provided Asia Pacific with a chance to repair and rebuild for the future, requiring regional markets and stakeholders to co-develop solutions for lasting change.

Governments have a key role to play in developing a clear and determined vision for the future, balancing economic targets with social improvements and citizen wellbeing. In consultation with other stakeholders, governments need to define goals and identify strategic growth areas that need to be prioritised to achieve them, creating new pathways for the corporate sector to participate in nation building. Businesses, both large and small, then need to align their growth strategies with broader industry and national development plans, and lead implementation of these growth pillars in the days ahead.

Improving resilience to possible disruption has now become a must for all future strategies, requiring businesses to build more digitalised value chains while restructuring globally fragmented networks into more regionally integrated supply chains. Businesses also have an urgent and critical need to expand beyond mature global economies and "go regional" by targeting Asia Pacific's strong and growing consumer base. The services sector in particular is well positioned for cross-border expansion, allowing nations to create a new growth lever for trade by addressing regional needs for healthcare, education, construction or Information Technology (IT) services. Companies also have a major role to play in driving more agile innovation and preparing their SME value chain partners for the future. However, while doing so, they need to be conscious of a growing societal shift towards environmental sustainability, and therefore adopt business practices to remain relevant for the future.

All through these pillars, governments need to act as facilitators, helping strengthen digital trust, appropriately skill the workforce of tomorrow and design incentives for all to participate in building a net-zero emission economy within Asia Pacific. Society needs to be the focal point for all change, requiring both governments and businesses to constantly engage with the people in understanding their growth aspirations, addressing changing consumer needs, making interventions to modify old consumer habits and transforming lives for the better by expanding their reach to those who have historically been left behind.

Asia Pacific stands at a decisive point, facing an urgent need to overhaul its old economic, social and political constructs. This is the time to lay the foundations of a resilient, sustainable future."

Blair Sheppard

Global Leader, Strategy and Leadership, PwC

Mt. Taranaki, New Zealand

Pillar one

Advancing the digital economy

Enabling the digital imperative

Why now?

01 Need for Industry 4.0 solutions to boost productivity had already been on the rise, but has become a vital requirement with COVID-19-related disruptions making resilience a core necessity.

02 Old habits have been modified during the pandemic, moving many more consumers and procurement functions online for the first time. Businesses must cater to changing market needs with greater agility.

03 Exponential growth in digital connectivity in Asia Pacific has increased risks from cyber threats, requiring urgent intervention to build digital trust to maximise future potential.

To meet its changing market requirements, Asia Pacific has been experiencing a digital evolution. Spurred by high smart phone penetration, rising consumer acceptance of technology and a growing willingness of companies to innovate, the promise of digital has been gaining momentum. The onset of COVID-19 has fast-tracked the trend, leaving governments and businesses without the luxury of time to complete this transformation.

The pandemic has moved the offline world into online mode almost overnight, while reducing the need for physical proximity to consume goods and services. This has created new opportunities for digital pathways, accompanied by evolving digital risks.

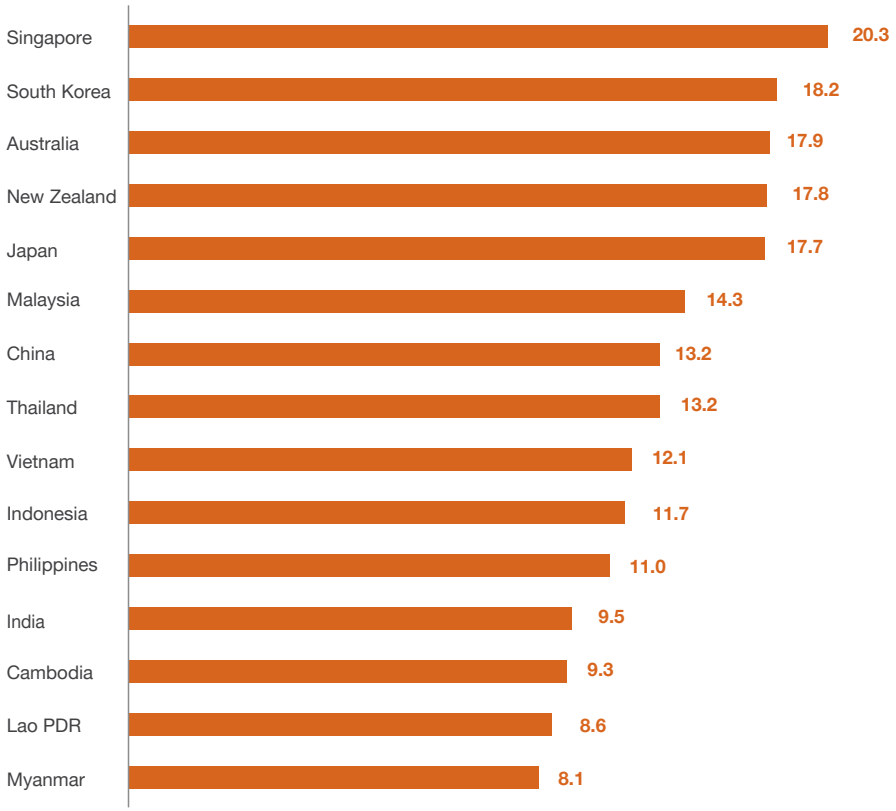
Technological readiness and an ability to gather and use real-time data, which have been pushed along by COVID-19, are now fast becoming new sources of competitive advantage in Asia Pacific.

While large companies are at the forefront of the shift, smaller players cannot afford to stay reactive and need to prepare themselves for change or lose business to competition. During this transition, it is also important to realise the heterogeneous characteristic of Asia Pacific in this regard, considering that digitalisation has occurred at varying speeds across the region (see figure 4). Yet, while certain countries are in the early stages of their digital journey, digitalisation is a fundamental pillar of the region's future growth.[19]

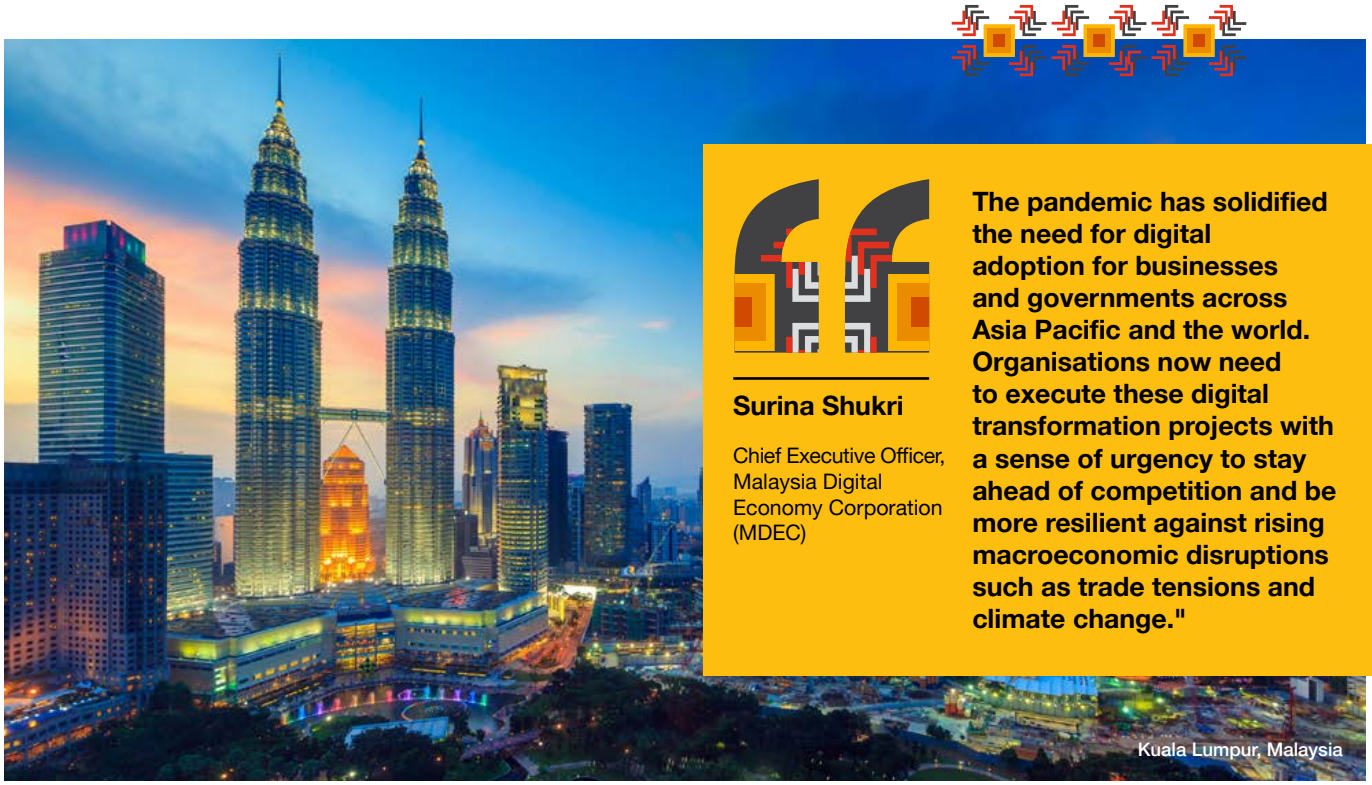
With digital competitiveness growing, the need to manage digital risks has become inescapable. Digitalisation can add value but only if adopted within the right processes, at the right time and in the right part of an organisation, while paying special attention to cyber security to manage the breaches that are expected to rise as more consumers and businesses adopt digital technology.

Figure 4 **Digital readiness in key Asia Pacific markets**

Digital Readiness Index 2019 (Best - 25.0)



Digital Readiness Index is measured in seven components – basic needs, human capital, ease of doing business, business and government investment, start-up environment, technology infrastructure and technology adoption.
Index score not available for Hong Kong SAR, Taiwan and Brunei Darussalam
Source: Cisco Digital Readiness Index 2019



Surina Shukri

Chief Executive Officer, Malaysia Digital Economy Corporation (MDEC)

The pandemic has solidified the need for digital adoption for businesses and governments across Asia Pacific and the world. Organisations now need to execute these digital transformation projects with a sense of urgency to stay ahead of competition and be more resilient against rising macroeconomic disruptions such as trade tensions and climate change."

Kuala Lumpur, Malaysia

Sub-pillar 1

Building digital value chains for resilience

Shift from relationships to reliability — a call for resilience

Even before the COVID-19 pandemic, optimising efficiency was becoming increasingly important to profitability. Digital enablement across the value chain and adapting to a more digitalised consumer journey were key strategies for success. The pandemic has added resilience to this list of growth objectives, to the point of making the ability to withstand sudden disruptions and suitably manage future risks a key priority alongside traditional profitability metrics. Customers and value chain partners who were already demanding greater personalisation and convenience are now also prioritising reliability above relationships, making it even more important to strengthen resilience through digital adoption than ever before.[20]

Commencing the digitalisation journey

Digitalisation has become crucial for future growth, though some companies have been able to adopt digital solutions faster than others based on their current capabilities (systems, processes and people). However, the urgent push towards digitalisation brought about by COVID-19 can result in digital solutions being adopted inappropriately. As such, accelerating digitalisation through inappropriate solutions, or in parts of a business' value chain where it would be least effective, could reduce value and customer experience. Companies must therefore begin their digitalisation journeys diligently, based on the following:

Company action

Why?
What is the core need to be addressed by digitalisation?

Where?
Which parts of the value chain need to be digitalised on priority?

What?
What technology is most applicable given the existing processes and future needs?

Inappropriate digitalisation threatens an organisation internally, especially in Asia Pacific where a large proportion of family-owned businesses have conventional IT infrastructure that is less suitable for new technologies. Therefore, before implementing digital initiatives, organisations need to assess their existing digital readiness in order to effectively and securely unleash the opportunities presented by new technologies.

Alex Ng

Chief Executive Officer, Kerry Express Thailand

For conglomerates with diverse businesses like ours, accelerated digitalisation can become a burden if it is not integrated correctly with existing processes. We prioritise enhancing our user experience and strengthening the foundation of our work processes before undertaking digital transformation projects. We are also trying to decentralise technology and encourage our business units to rethink processes and propose how technology can improve efficiency and enable things to turn from good to great."

Hanoi, Vietnam

Digitalising the right parts of the value chain — "the where"

A key element of understanding one's digital readiness is the adoption of a holistic value chain approach to digitalisation, which considers how technology can be suitably deployed at the right points across an entire value chain. Businesses do not necessarily need to digitalise an entire value chain at the same time, but should prioritise adoption in areas that enable stronger reliability, visibility and agility in managing market needs.

Businesses tend to restrict digital adoption to customer-facing functions such as marketing and sales, but now need to expand focus to other functions as well to maximise impact. Figures 5a and 5b highlight the challenges being faced across the value chain, and digital solutions that can help mitigate these.

Figure 5a Digitalisation of the value chain - key challenges

Fundamental shifts

- Rising input costs in traditional production centres
- Growing cost of regulatory compliance and supply chain management

- Growing competition from regional and local firms
- Emergence of lower-cost manufacturing locations increasing competition

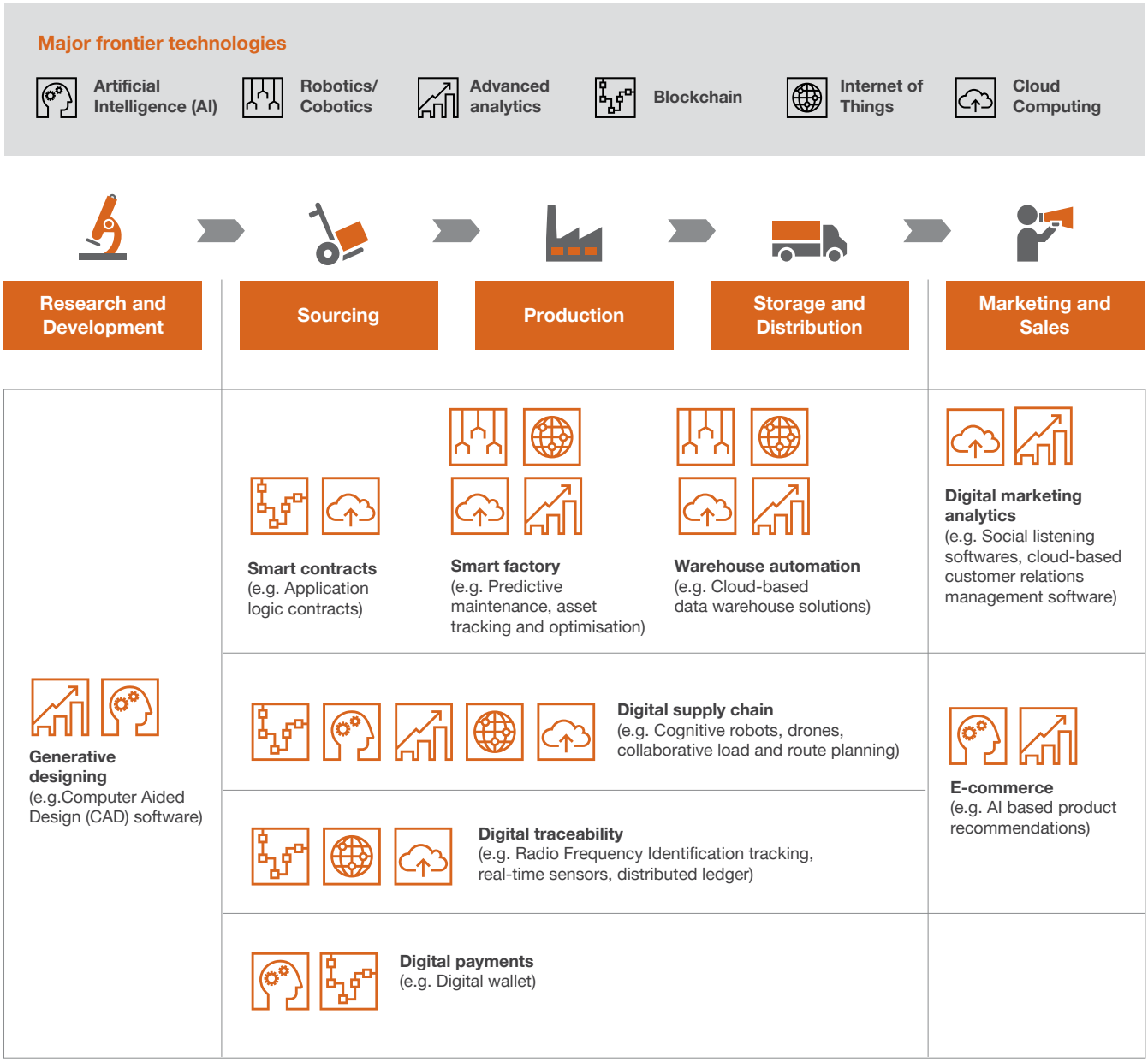
- Changing consumer habits, demanding greater product customization
- Need for faster fulfilment and more visibility over the supply chain

Challenges in specific parts of the value chain

Research and Development	Sourcing	Production	Storage and Distribution	Marketing and Sales
Need for product development agility to cope with demand for more personalised products and fast-changing customer preferences	Procurement inefficiencies and payment hassles due to inadequate infrastructure and multiple suppliers	Decreasing labour productivity due to ageing workforce and rising labour cost in a few Asia Pacific economies	Need to regionalise supply chain networks to support faster fulfilment as manufacturers move closer to consumers	Difficulty in targeting diverse customer segments in the heterogenous Asia Pacific region
Costly manufacturing re-works during the development process	Need for supply chain resilience exacerbated by COVID-19 / trade tensions	Increasing production costs and transaction inefficiencies impacting competitive advantage	Gap in warehouse efficiencies and payment methods due to inadequate infrastructure, leading to sub-optimised finished goods inventory	Increasing consumer preference for secure, convenient and remote payment options – exacerbated by the COVID-19 pandemic
	Rising pressure from consumers towards increased visibility over supply chains	Rising pressure from consumers towards increased traceability and visibility over supply chains	Rising pressure from consumers towards increased reliability and visibility over supply chains, for delivery and sustainability concerns	Need to offer value adding solutions for higher margins amidst increasing competition
	Maintaining quality of supply from multiple suppliers			

Source: PwC analysis

Figure 5b **Digitalisation of the value chain - key solutions**



Source: PwC analysis

Research and Development

With digitalisation, the boundaries for ideation can expand way beyond traditional sources, accessing inspiration and best practices from users and innovators worldwide. The increasing need for agility in product development is also traditionally met with costly manufacturing re-works. However, AI-powered generative design can now deliver thousands of iterations in a fraction of the time. Manpower can be freed from mundane and repetitive tasks, while simulation and testing features can be built into the design process to avoid additional costs.

Sourcing

Rebalancing global value chains with more regional networks across Asia Pacific are creating new opportunities. However, this also attracts competition, making it important to efficiently manage multiple stakeholders. Digitalisation can address this need through blockchain-based smart contracts that reduce complexity through automated verification and execution of multiple contracts. Smart contracts can also enhance trust by ensuring a decentralised, immutable record that is transparent to all parties. Providing real-time visibility, they allow greater efficiency and agility while strengthening relationships across the value chain.

Production

To sustain growth in a post-COVID-19 world, factories need to operate in an unpredictable environment — strengthening the need for agility in production — to address sudden fluctuations in demand while avoiding costs associated with maintaining large inventories. Factories can begin driving intelligent manufacturing in many ways. For instance, they can use AI to analyse data captured by sensors on equipment enabled by the Internet of Things (IoT), to identify efficiency gains or conduct predictive maintenance. They can also adopt robotics to perform repetitive tasks previously undertaken by human labour.

Storage and Distribution

Supply chains are needing to manage sudden changes in demand, increased regulation and a heightened customer need for visibility. Some of these demands can be addressed with a shift from a just-in-time to a just-in-case mindset, which builds in redundancy but has high costs. Therefore, there is now a strong need to adopt more cost-optimal digital solutions, where IoT devices can collect real-time data; cloud computing can allow multiple stakeholders to leverage real-time information for collaboration; product tracking and compliance management is made more transparent with blockchain; and warehouse automation helps reduce order turnaround time and lowers operating costs.

Marketing and Sales

Asia Pacific's exponential growth in e-commerce has brought about new challenges in targeting the region's diverse customers and meeting their ever-changing needs. The lockdowns imposed by COVID-19 have exacerbated many people's need for an online presence, with many new customers, such as older age groups, being introduced to online shopping, while existing shoppers have spent more time online — factors that have increased pressure on firms to go digital to remain competitive. E-commerce also shows great potential to transform the buying experience by improving market reach — especially since, during the pandemic, this has been a safer option than traditional retail.

Besides this, digital marketing analytics can help manage disparate data sets and derive deeper insights, allowing companies to achieve better customer segmentation and target-based marketing within a heterogeneous region such as Asia Pacific. Digital payments can also help facilitate convenience and accessibility. While allowing companies to achieve greater reach, these solutions can also enable stronger traceability as details of payments are stored in merchant-specific databases.

Case example

Digital adoption across select segments of the value chain in Japan

Research and Development

Daiwa House Industry, a major construction firm in Japan specialising in industrialized housing has adopted generative design solutions that simulate building requirements such as design objectives, materials, manufacturing methods and cost restrictions to produce multiple design iterations that help optimise land space – addressing a key urbanisation challenge in Japan. Automation has been helpful in improving the efficiency and accuracy of the design process, allowing the firm to create and compare multiple options with lower cost and time requirements as compared to manual processes.[21]

Sourcing

Japan Gibier Promotion Association, a division of the Japanese Ministry of Agriculture, Forestry and Fisheries has adopted a blockchain solution to store and track transactions executed across the supply chain for game meat. Since the transactions are updated in real time and cannot be altered, the solution provides greater transparency and traceability over the entire supply chain, and ensures tighter quality control for the perishable product.[22]

Production

Okuma Corporation, a machine tool builder in Japan has adopted IoT solutions in its factory to collect real-time data on labour, material and machinery related metrics. This has allowed greater visibility over facility operations, enabling the company to optimize manufacturing processes and reduce production lead time by 50% for its major product lines.[23]

James Wei

Chief Executive Officer, Master Kong

Digitalisation has been an integral part of our competitive advantage. Implementing the 'Plus Internet' strategy, we have continued to invest in digital upgrading across the value chain through smart production, e-commerce and business intelligence solutions - in a bid to accurately grasp consumer needs and deliver the right products to the right person, at the right place and time."

Case example

Digital adoption across select segments of the value chain in China

Storage and Distribution

Driven by rising competition, FAW Group, an automobile and auto parts manufacturer in China has installed autonomous forklifts to optimise its logistics operations in Changchun. Deployed in the company's high-rise warehouse to manage heavy-load auto parts, the solution is used for autonomous storage and retrieval, material handling, mechanical arm collaboration and conveyor line integration – significantly improving process efficiency with lower labour requirements, higher operational accuracy and better risk management.[24]

Marketing and Sales

Huitongda, a Chinese digital services platform aims to increase the reach of e-commerce in rural China. Working across 18 provinces, the company provides merchandising and marketing solutions to retailers in rural areas, enabling them to buy quality products at better prices and eventually sell them to rural consumers through its e-commerce platform. As of October 2020, the company has incorporated more than 80,000 retail stores across China into its network.[25]

Chengdu, China

Sub-pillar 2

From digital risk to digital trust — collectively enabling the pathway

Digital trust, a necessity in the post COVID-19 digital economy

The pandemic has accelerated the idea of digital adoption on an unprecedented scale, which also poses significant risks. For companies to compete, using data effectively has become critical. Rising digitalisation is making organisations increasingly data-rich, leading to greater cyber threats targeted at that data and their digital identities. These threats have also become more sophisticated and apparent across Asia Pacific due to its largely unregulated and exponential growth in connectivity. This has made risk mitigation by establishing digital trust more important than ever.[26]

For this, governments not only have a role to play in developing the right policy environment but also in helping SMEs, which make up a significant part of economies across Asia Pacific, to ascend the digitalisation curve. If left unchecked, growing digital dominance by global companies that are ready to adopt more advanced digital solutions could make regional SMEs significantly less competitive. Against this backdrop, businesses of all sizes need to adopt a new cyber-resilient mindset, refocusing efforts from pure prevention to actively monitoring and becoming better prepared to respond to cyber threats.[27]

Government's role in facilitating digital trust and adoption

While evaluating digital readiness is within an organisation's control, there are a number of factors for which companies need to depend upon external players. Establishing digital trust is one such area where governments need to take the lead. Governments in Asia Pacific need to play a more central role in spurring social confidence by taking steps that enable organisations to become digitally ready and secure. The COVID-19 lockdowns have seen increased use of e-commerce and digital solutions in Asia Pacific — a recent consumer survey reported that 52 per cent of respondents in Asia Pacific said they had more plans to shop online due to the pandemic — but to support commercial activity, the government now needs to convince the people of online safety and digital security.[28]

To appropriately seize the opportunity for change presented by the pandemic, there are a number of key focus areas for the government.

Provide balanced digital governance

The challenge for governments now is to provide a policy environment that allows businesses to innovate, maximising the potential of digital solutions while managing associated cyber risks, promoting competition and building digital trust. This is because if regulations are too strict, they inhibit a large corporate's motivation to innovate; however, if they are too open, they give rise to digital dominance where SMEs are unable to survive. PwC's Asia Pacific Business Leaders Survey, 2019, shows regional business leaders also agree (70% responding "yes") that additional regulation is needed to increase public trust in cybersecurity, AI and data privacy.[29]

Foster regional harmonisation of regulations

With rising global uncertainties, there is strong opportunity for companies to look within Asia Pacific for growth and for governments to create the conditions for e-commerce to prosper regionally. However, this also creates additional risks. Most cyber attacks today are cross-border operations, but regulatory approaches to cyber security in Asia Pacific are varied and localised. Going forward, the key to combating cross-border digital threats is for regional governments to pursue greater harmonisation of laws against cybercrime and establish regional standards that foster cross-border data flows and strengthen data privacy. This can be further enhanced by sharing policy expertise and best practices. Asia Pacific now has an opportunity to take a lead on this front and showcase the effectiveness of such regional collaboration to the rest of the world.

Support SMEs in digitalising with confidence

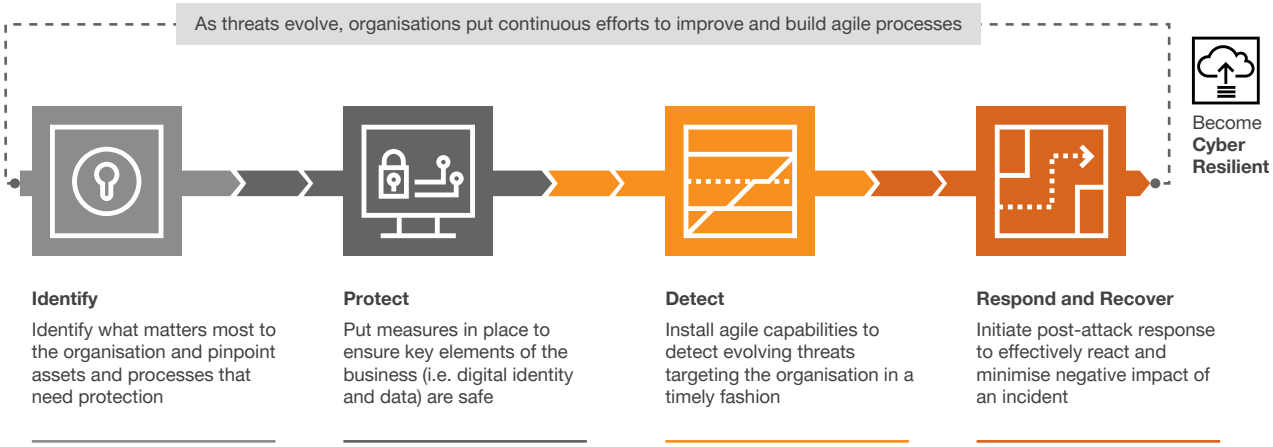
Smaller firms often face significant challenges in digitalising their operations, which the government can support in a collective way. Besides offering financial support, it has become increasingly important for governments to enhance awareness of cyber-hygiene practices to improve cyber-readiness within SMEs. This is also important for large-scale firms, as they need digitally ready suppliers to optimise their value chains. However, building a cyber-resilient organisation requires experience and technical expertise, both of which are in short supply in Asia Pacific. Therefore, it is essential for governments, large businesses and educational institutions to collaboratively build new capability development platforms such as cyber labs, training on industry best-practices and upskilling programs that can strengthen regional expertise and enable SMEs to access the right talent.

Transition to becoming cyber-resilient

Digital adoption brings with it a range of risks, many of which are inevitable, such as attacks on digital identities and data. By accelerating the need for digitalisation, COVID-19 has further accentuated these risks, requiring organisations to strongly emphasise cyber security. As organisations seek to establish digital trust and become cyber-resilient, it is important to embrace the mantra of "assumed breach", which supposes that both digital identities and data will be breached at some point in time — more so amid hasty efforts to digitalise post-COVID-19 — and, on that premise, organisations ought to adopt a four-step approach (see figure 6) to mitigate losses. This mindset refocuses an organisation's efforts away from pure prevention to one that monitors for threats, detects breaches and responds effectively to minimise any negative impact.[30]

Figure 6 Four step approach to establishing digital trust

A holistic approach of actions required to build trust into the fabric of an organisation's digital operations



Source: PwC analysis

For example, the Cyber Security Agency of Singapore conducted its third sector-level cyber crisis management exercise in 2019 to improve Singapore's readiness. Over 250 public and private sector companies went through a sequence of scenario planning sessions, workshops and table-top discussions to develop and test their incident management and remediation plans in response to simulated cyber attacks. Scenarios exercised included disruptions in internet connectivity, the communications network and compromise of industrial control systems.[31]

Jonathan Sudharta

Chief Executive Officer, Halodoc

Support in the form of the right policy environment and the endorsement of our product by the government helped enhance digital trust among users, leading to increased adoption of our mobile-based healthcare platform. During the pandemic, Halodoc is also collaborating with the Ministry of Health for the Komunikasi, Informasi, dan Edukasi (KIE) program to provide various verified information related to COVID-19. In addition, we also collaborated with our medical facility partners to provide the COVID-19 tests, aligned with the government's program in pushing forward the COVID-19 test to map out the COVID-19 transmission in the country."

Case example

Protection against cyber threats by an Indian conglomerate

JSW Group, an Indian conglomerate with a presence in steel, energy, cement and infrastructure sectors, has shifted its focus from securing the perimeters of machines that contain critical information to securing the information itself.

- Raising internal awareness through workshops on how to protect company information
- Identifying and alerting the company against malware or phishing mails
- Ensuring that data remains safe while sharing files on third-party cloud storage platforms
- Minimising the use of public WiFi networks when viewing critical information
- Looking at 'hacker bots' to plug potential gaps faster than humans

Source: The Economic Times

Moving forward

Rising competition amid changing industry forces is making digitalisation a major differentiator for businesses in Asia Pacific, with the COVID-19 pandemic further accelerating the need to digitalise. To truly unlock their potential, it is critical for companies to conduct a robust internal evaluation to understand their digital readiness and adopt a holistic value chain approach to identify focus areas for adoption. Building digital trust also needs to be prioritised to safeguard businesses and consumer interests, requiring governments to create suitable policies and assist SMEs to become digitally ready and cyber resilient. While businesses are required to shift focus from prevention to proactively detecting and responding to cyber attacks, effective mitigation also calls for continuous efforts to build agile processes to counter constantly evolving digital threats.

Hanoi, Vietnam

Key takeaways

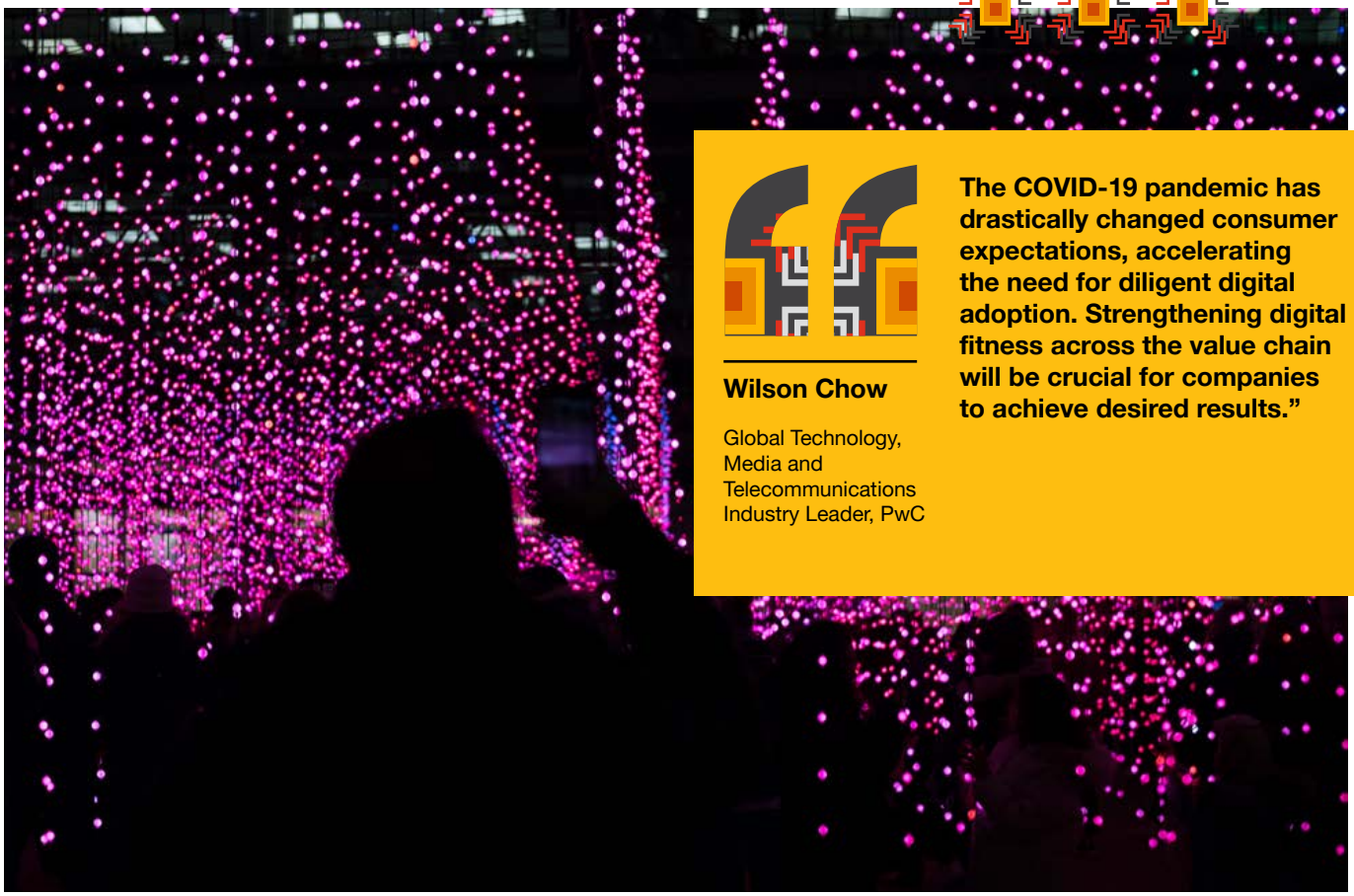
What actions are needed?

Businesses need to conduct robust internal due diligence to understand their digital readiness, and identifying the core need to be addressed by digitalisation, within the right part of their value chains.

Companies need to follow a holistic value chain approach to digitalisation, prioritising adoption in areas that can enable stronger reliability and agility, while expanding focus beyond customer-facing functions.

For the digital economy to flourish, governments need to build digital trust by harmonising regional laws on cybercrime, establishing regional data standards and preparing SMEs for digital adoption.

Businesses must consider digital risks as an enterprise-level priority to get a unified view of threats, and follow a four-step approach (identify, protect, detect, respond and recover) to enhance cyber readiness.



The COVID-19 pandemic has drastically changed consumer expectations, accelerating the need for diligent digital adoption. Strengthening digital fitness across the value chain will be crucial for companies to achieve desired results."

Wilson Chow

Global Technology, Media and Telecommunications Industry Leader, PwC

Pillar two

Enabling regional enterprise growth

The growing need for regional expansion

Why now?

01 Domestic disruptions caused by the pandemic have strongly accelerated the need to look beyond local markets for growth, targeting overseas expansion for new sales opportunities.

02 Global uncertainties and COVID-19 have negatively impacted more mature global markets targeted historically for expansion, with Asia Pacific showing stronger growth prospects.

03 Rising cross-border tradability of services due to digitalisation offers new export opportunities, more so with regional markets having significant potential to share complementary strengths.

Almost overnight, Asia Pacific's future has been brought forward by at least a decade, if not more, by COVID-19. How people work, what they sell, how they consume, how they pay and even their endurance levels have changed — and that has necessitated a shift in how businesses operate and grow. During Asia Pacific's rise, companies have typically targeted more mature global markets for growth. Family-owned firms and SMEs in Asia Pacific have ventured only selectively outside their domestic bases, restricting themselves mainly to mature European and American markets, in which they found it easier to operate.

However, evolving market conditions, accelerated by COVID-19, have unexpectedly changed this trend, pressing companies to look more within Asia Pacific for growth. New consumer markets continue to emerge within Asia Pacific, supported by rising income levels and a stronger recovery from the COVID-19 crisis.

With rising global uncertainties, SMEs and family businesses now have an urgent need to 'go regional', prioritising those markets with lower cultural, administrative, geographic and economic (or "CAGE") differences than others.[32]

Looking at growth areas, the services sector, in particular, shows significant potential for regional cross-border expansion, allowing companies and countries to develop a new lever to boost trade by addressing Asia Pacific's diverse and evolving requirements. Growing digitalisation has further reduced the need for physical proximity to deliver services such as healthcare, education or entertainment, opening even greater opportunities for services exports. With regional markets sharing complementary strengths, the potential for growth is immense, but requires focused action from governments to create a policy environment that fosters and safeguards cross-border transactions.

Sub-pillar 1

Propelling companies for growth within Asia Pacific

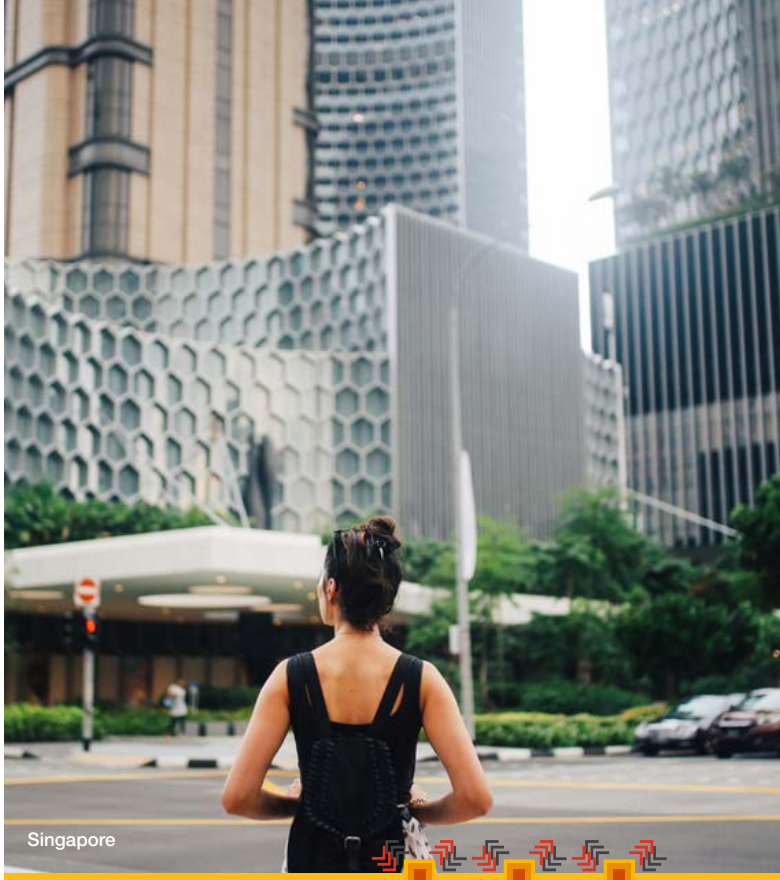
The need for an Asia Pacific model — now

Economic growth has created new opportunities for companies to expand across Asia Pacific, especially for "glocal" firms that have experience in global markets and understand the need for localised capability-building. However, Asia Pacific is not homogenous, hosting varying consumer segments and disparate business and institutional environments. Therefore, strategies that have been successful in certain home or mature global markets often fall short when applied to other markets in the region. Going forward, organisations need to realign their business models by adopting a capability-driven regionalisation strategy that is relevant for Asia Pacific, supported by enablers such as the right technology infrastructure partnerships and culture.

Adopting a capability-driven regionalisation strategy

Typically, companies find it easier to operate in their home markets. Enabled by deep market knowledge and supported by domestic partners, local companies are able to circumvent complications and achieve profitable growth. However, these strengths are usually not "translatable" due to peculiarities of different Asia Pacific markets, and it becomes difficult to replicate their success across borders.

To enable cross-border growth while managing rising uncertainties, companies need to learn ways to localise but be agile — to remain structured but also become flexible. This requires a capability-driven regional expansion strategy aligned to the company's overall ambition, the value it seeks to deliver and the core strengths that define its DNA. In particular, companies need to focus on three foundational areas — operational performance, innovation and go-to-market excellence — to create a differentiated strategy and outmanoeuvre competition in foreign markets.[33]

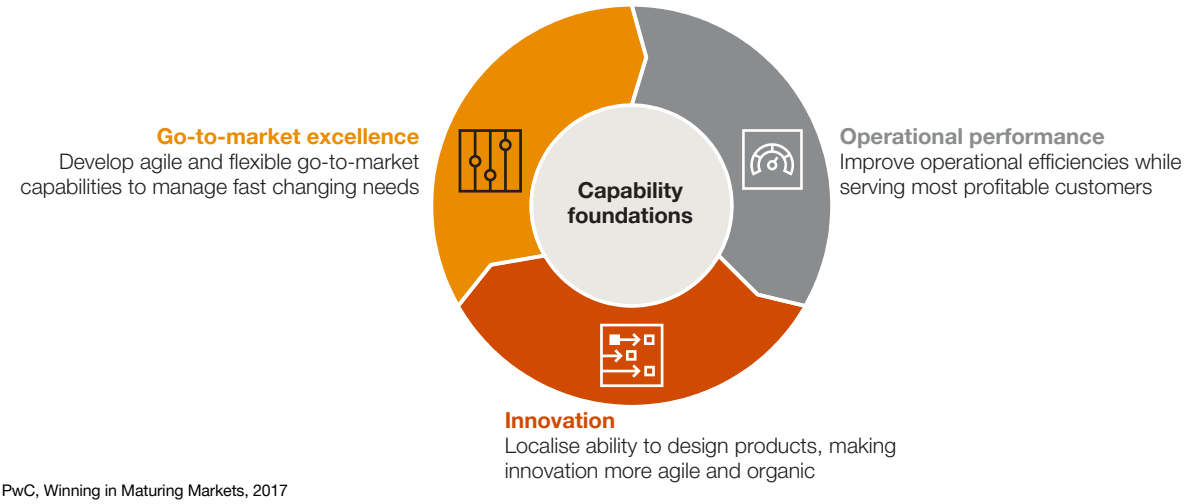

Singapore

Tom Rafferty

Regional Director, Asia, The Economist Intelligence Unit (EIU)

Advanced Western economies have for a long time invested in manufacturing and exporting through Asia Pacific, leading to the economic growth of many Asian economies. However, the recent trade tensions and the ongoing pandemic have caused a shift in this model – if Western capital is less accessible, Asian countries will have to look internally and regionally to foster growth."

Figure 7 Foundations of a capability-driven regionalisation strategy for Asia Pacific



Source: PwC, Winning in Maturing Markets, 2017

Operational performance

With the onset of the COVID-19 pandemic, the need to improve operational performance has increased significantly, both as a lever to differentiate and as a tool to maintain profitability. This is especially relevant for many Asia Pacific markets that lack adequate infrastructure and present significant operational challenges. With governments expected to increase regulatory scrutiny in the post-COVID-19 world, managing rising compliance costs with operational improvements has also become more important. To identify levers of change, companies in Asia Pacific first need to differentiate between the impact of controllable internal factors (such as wages, suppliers or materials) and external elements (such as regulatory compliance, interest rates or taxation norms), and benchmark their current cost and other operational metrics to best-in-class performers. Companies can then consider multiple levers to help improve operational efficiencies, looking at cost optimisation in the short term, footprint realignment in the medium-term and supplier improvements in the longer-term.[34]

Go-to-market excellence

Companies looking at new regional markets for expansion also need to rethink their existing go-to-market capabilities in response to rapidly changing consumer behaviour, the emergence of new technologies, and growing competitive and regulatory pressures across Asia Pacific. Enabling a quick response to emerging trends has become crucial for market success in the region, requiring companies to shift from rigid structures to more agile and flexible operational models. While the rising sophistication of middle-class consumers in Asia Pacific creates opportunities for more aspirational products, consumers in many regional markets also remain highly price-sensitive despite strong familiarity with brands. To tackle the complexities arising due to growing fragmentation of preferences across different regional socio demographics, companies need to address on-the-ground market dynamics. This can be achieved by leveraging relevant capabilities that have helped drive success in their home markets, while bridging gaps by building new ones either in-house or through strategic partnerships.[35]

Innovation

Localising innovation has become essential for companies targeting regional expansion. To succeed in a consumption-heavy and diverse region such as Asia Pacific, companies need to anticipate and adapt to changing market conditions with greater agility. To be competitive in new regional markets, companies need to develop a strong innovation-driven mindset supported by an understanding of target consumer behaviour — to best suit their products to the needs of the local market. Speed-to-market is also important to cater to fast-changing consumer needs in Asia Pacific. This can be achieved with a continuous agile approach towards product or process improvement, with companies acquiring new capabilities along the way. These include enhanced customer intelligence, new cross-sector and international business relationships, knowledge of more flexible and adaptive operating models, and improved human capital and IP. Enabling agile and organic innovation has become critical for growth in Asia Pacific, shifting away from the longer-cycle periods followed historically in mature global markets.

KV Rao

Resident Director, Tata Sons – ASEAN & Chair/Board Member of Tata Regional Subsidiaries

Innovation comes from an agile mind-set rooted into the company's culture and leadership. An organisational pursuit of innovation also needs to be supported by an ecosystem wherein new ideas can be explored and experimented in a protected environment, without excessive fear of the risk of failure."

Kuala Lumpur, Malaysia

Strengthening key enablers to support regional expansion

In addition to building core capabilities, organisations in Asia Pacific also need to strengthen certain enablers to adequately support their regional expansion strategy. These enablers can range from enhancing digital capabilities and infrastructure, to pursuing strategic partnerships and mergers and acquisitions, or strengthening local talent and organisational culture.

Of all of these, digitalisation has risen to become an imperative enabler to future growth in Asia Pacific by making production and supply chains more efficient and enhancing market-reach and customer experience. To digitalise effectively, companies need to build the right support infrastructure, catering to an accentuated need to support real-time interactions across business functions while integrating with external supply chain partners. Companies must follow a stepwise approach to technology implementation — incorporating pilot exercises with detailed roll-out plans and prioritising implementation for specific segments (customers, revenue streams or regions), while establishing clear schedules for decommissioning of older systems.

Exploring partnerships and mergers and acquisitions to address capability and resource gaps denotes another major growth enabler — helping companies improve operational performance in new target markets, innovate for local requirements and overcome any fear of the unknown to establish a more robust go-to-market strategy. Alliances can also help companies in countering key barriers to entry in regional markets (such as regulatory requirements, customer preferences), while sharing market-development costs and risks with partner firms. Larger firms with greater investment capacity can also consider strategic acquisitions to gain quicker access to capabilities such as innovative products, strong research and development skills or a loyal customer base, which can more strongly position the company for success.[36]

Finally, the availability and quality of local talent have become key drivers for site selection and strategy formulation when expanding across Asia Pacific. Recent events such as the COVID-19 pandemic have caused employees to re-evaluate what is important, thereby creating an opportunity for companies to review their employee value propositions and make them more personal and localised. Cultural resistance remains a major barrier to foreign expansion. To tackle this challenge, hiring in new markets must remain aligned to the company's core values, but the overall work culture should be flexible enough to adopt different communication and working styles in local markets. COVID-19 has accelerated a shift in Asian organisations from a relationship-focused and highly face-to-face oriented work environment to one that embraces virtual engagement. Building the right support culture that continues to address employee needs and retain talent in this new environment has become crucial for future success.[37]


Hong Kong SAR

Sub-pillar 2

Boosting regional trade in services as a new growth lever

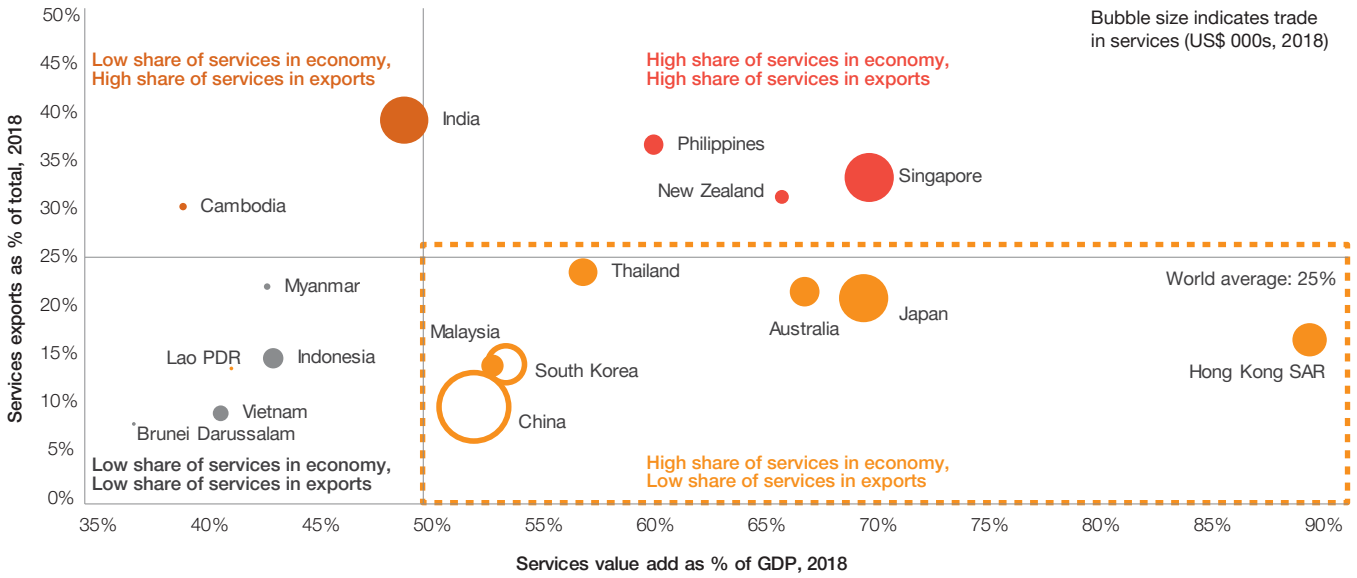
Need for a new regional trade driver

The services sector stands out in terms of future potential for regional expansion and addresses the urgent need for Asia Pacific to look for new levers for growth, relevant to the emerging post-COVID-19 world. Technological forces have reduced the need for physical delivery of certain services categories, with growing tradability of digitalised services opening new revenue opportunities for regional firms. This is especially the case in areas such as education, healthcare, entertainment, professional and technical services, and ICT services. Furthermore, COVID-19 has presented an opportune time for companies to increase their focus on services trade and building conditions for more inclusive growth. Already marked with significant demand within the region, Asia Pacific needs to prioritise efforts to boost regional services trade by focusing on sharing complementarities to reduce dependence on an uncertain global landscape.[38]

Preparing companies to enhance services' exports

Market figures indicate a major potential for Asia Pacific to focus on services trade. As shown in figure 8, while many regional economies have a strong focus on the services sector (more than 50% share of GDP), the segment continues to lag the world average in its share in overall exports, especially in Japan, Hong Kong SAR, Australia, China, Malaysia, South Korea and Thailand. On average, services represented only 18 per cent of overall Asian exports in 2018, far below the global figure of 25 per cent. By bridging this gap as a short-term priority, Asia Pacific can aim to boost its potential even further in the longer-term.[39]

Figure 8 Presence of services sector in overall economy and exports for Asia Pacific markets



Source: ITC Trade Map, World Bank

The role of the services sector will evolve differently across markets in Asia Pacific. Demographics are becoming a key determinant of demand. Markets with a growing proportion of older age groups are expected to witness higher growth for healthcare, insurance and real-estate services, while demand for education, entertainment, transport and travel is expected to remain strong for relatively younger economies. Similarly, higher-income economies show potential to become centres of more sophisticated segments such as research and development and financial services, while developing markets could see consistent demand for business and construction services to support growth. Finally, more mature manufacturing locations (e.g. China, parts of Southeast Asia) could be at the forefront of adopting a product-as-a-service model, with traditional businesses shifting focus from selling the product to selling access to the product as a service.[40]

However, to exploit this export opportunity, companies must start acting now. Digital services firms need to check their export readiness in terms of access to the right payment platforms or cloud infrastructure to support cross-border business. Market entrants also need to build their brand presence to compete with incumbents in regional markets. Working with their national trade agencies or industry associations has become highly important in this regard to promote the national economy as a leader in their space.[41]

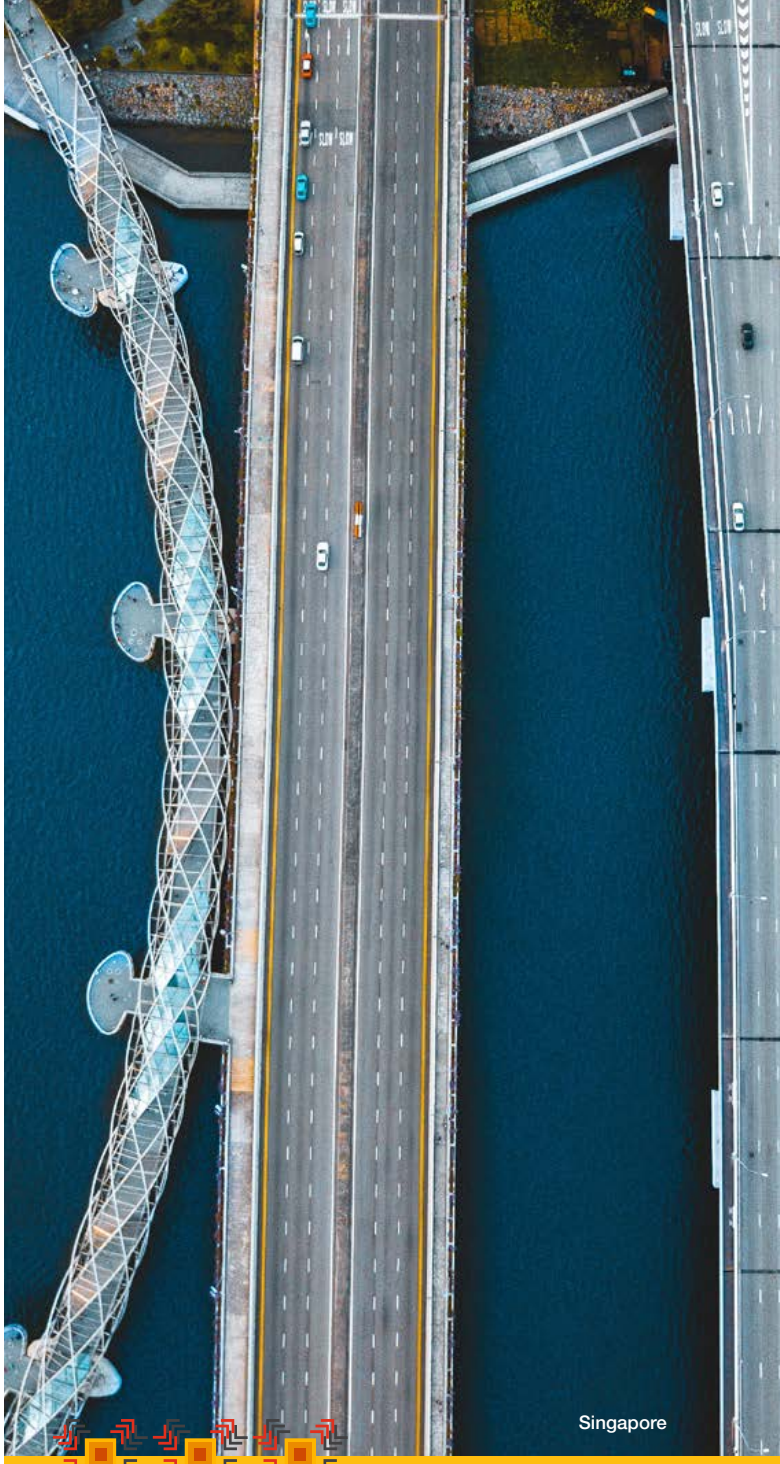
Increasing intra-regional cooperation in services trade

Services trade is also important for Asia Pacific governments to help address critical and evolving domestic needs. Widely regarded as an enabler of inclusive growth, the services sector can help spread the benefits of economic prosperity to less tapped segments. The lower investments required to run a services business as compared to building new products makes it more favourable for groups with limited access to finance, thus boosting the SME sector and creating new jobs. Different Asia Pacific markets are also experiencing a range of requirements in their domestic economies, such as rising costs of ageing or gaps in the education system, making it essential to work together. For example, developed countries may need greater support in health services for their ageing populations, while keeping costs under control, thus enabling scope for cooperation with developing markets. Trade in services could therefore become imperative to satisfying such varying regional needs effectively in the coming years.[42]

However, the presence of a strong trading opportunity within Asia Pacific is not enough, and service providers also need to rely on a favourable policy climate to stay competitive. This requires regional governments to work together to reduce trading barriers. Trade costs for services remain almost twice those for goods, which necessitates a strong intervention. As priority areas, strengthening regulatory cooperation across regional markets has become key to establishing common standards, improving information exchange and developing shared policy objectives. Establishing mechanisms for country trade offices to work with sector-level regulators can also help boost services exports. Finally, sharing technical assistance with less-developed markets in Asia Pacific can help these countries draft policies that support market liberalisation while strengthening the regulator's capacity to monitor impact.[43]

Moving forward

Enabling regional expansion across Asia Pacific, especially through services trade, has become pivotal to driving future growth. However, companies looking to internationalise need to be sensitive to geopolitical tensions, protectionist policies and other regulatory constraints while prioritising regional markets for expansion. Government support has therefore become critical to boosting opportunities for regional growth, helping domestic firms prepare for success in overseas markets in Asia Pacific, while strengthening regulatory cooperation with their regional counterparts to reduce entry barriers and costs. Businesses, on the other hand, need to be more proactive in targeting opportunities within Asia Pacific, focusing on brand building and offering localised solutions with greater agility to become competitive in regional markets.



Singapore

Snehal Patel

Chief Executive Officer, MyDoc

With challenges of affordability and access to healthcare services, regional cooperation is not a choice but an essential need for Asia Pacific. Many innovative technology solutions have invented affordable and effective healthcare services, and it is now time for regulatory bodies and investors across Asia Pacific to join hands and build a regional ecosystem for these solutions to scale."

Case example

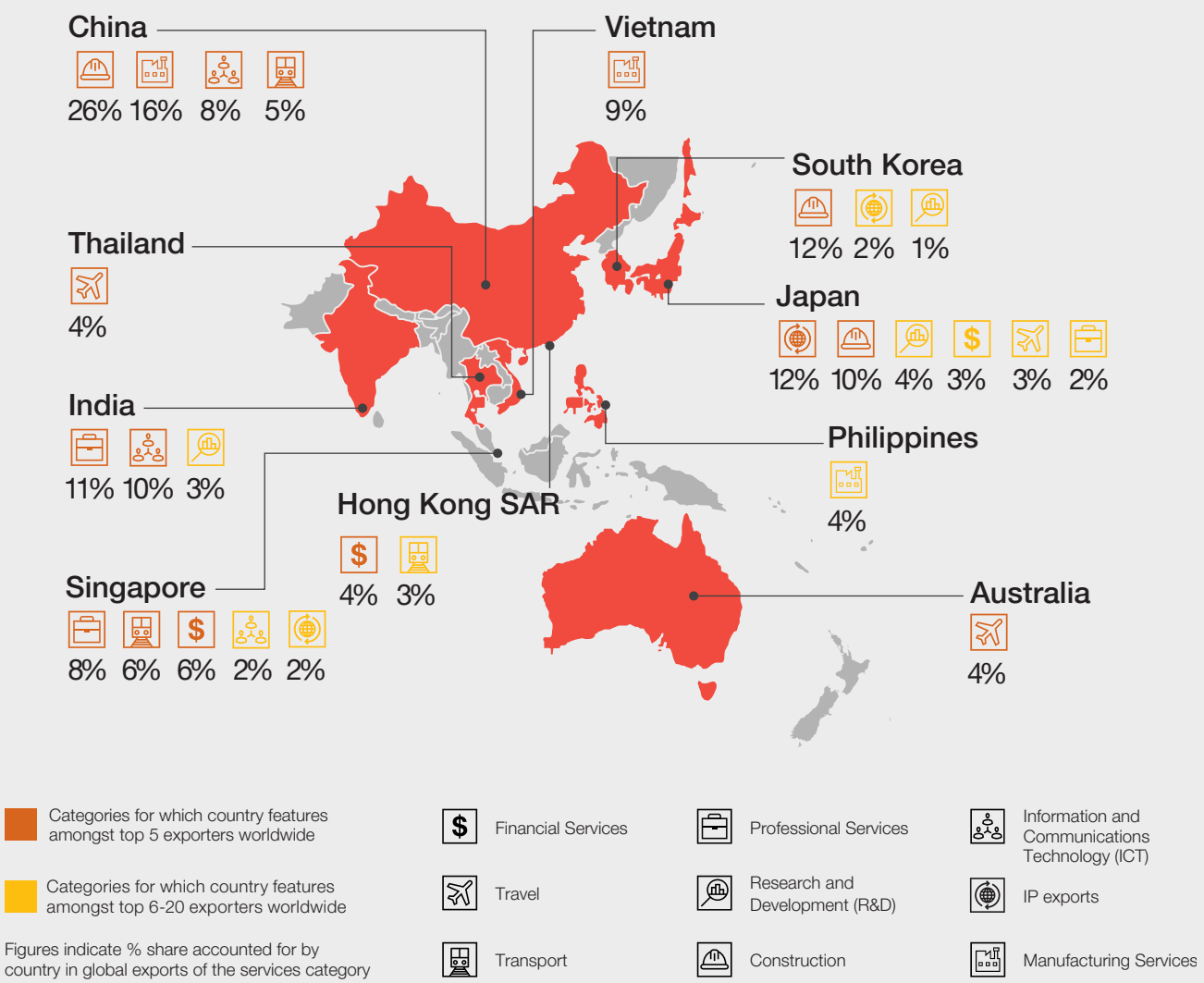
Complementary focus areas for services' trade in Asia Pacific

Individual markets in Asia Pacific show notable complementary strengths in different services categories, which indicates a strong scope for them to collaborate regionally. This wide range of specialisation can be a major factor in bringing markets together, with different countries leveraging their individual competitive advantages to target regional demand. Highlighted below in the map are regional markets that feature as leading services exporters today, indicating segments where they could also lead trade in Asia Pacific. For example, China, South Korea and Japan can export their expertise in construction services to the rest of the region, while India and Singapore can emerge as regional providers of ICT and professional services (see figure 9).[44]

These different pockets of expertise need to start working together to bolster regional growth.

Asia Pacific can also learn from other multilateral coalitions to improve on this aspect, with the 11-nation Comprehensive and Progressive Agreement for Trans- Pacific Partnership (CPTPP) being a recent example. The agreement focuses on developing mechanisms to boost services trade by improving cross-border mobility of personnel, relaxing data localisation requirements, strengthening laws on online-consumer protection and promoting collaboration in tackling cybersecurity. It also focuses on opening services trade in sectors closed historically, such as healthcare. Under the agreement, companies can enter the private health sector in a signatory nation under multiple modes — as medical service providers (physical or digital), investors or operators or construction firms — enabling markets to address healthcare gaps through greater cross-border collaboration.[45]

Figure 9 Leading services' exporters in Asia Pacific and major export categories



Source – ITC Trade Map

Note: Markets highlighted only include Asia Pacific markets that feature amongst top 20 global exporters for key services segments depicted in the graphic.

Key takeaways

What actions are needed?

Businesses need to be more proactive in driving Asia Pacific expansion, developing greater agility by strengthening core capabilities of operational performance, innovation and go-to-market excellence.

Governments need to act as enablers of regional expansion, supporting companies (especially SMEs) in identifying potential markets for growth in Asia Pacific, and preparing them for success outside domestic markets.

Services firms must build their brand presence in overseas markets, working with local industry bodies while ensuring access to the right infrastructure to support digital trade.

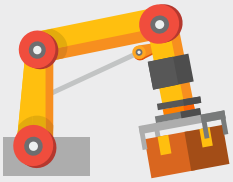
Government support is crucial to boost regional trade in services, by taking steps to reduce trading costs, strengthen regulatory cooperation and share technical policy assistance across markets.

Ay Tjhing Phan

Markets Leader, PwC Indonesia

Indonesia's strong consumerism is indicative of the opportunities within Asia Pacific. Companies need to seek new growth outside of their domestic markets, adopting localised strategies to address diverse and evolving consumer needs."

Borobudur, Indonesia



Pillar three

Rebalancing supply chains and fostering innovation

Compelling need for resilience and agility

Why now?

01 Geopolitical and trade tensions have enhanced uncertainties, leading some firms to explore new supplier locations to manage regulatory costs – thereby increasing network complexity.

02 Supply chain risks have increased significantly over time with global networks becoming more fragmented and complex, and COVID-19-led disruptions further strengthening the need for resilience.

03 Rebalancing of global operations with regional presence offers potential to mitigate risks, but requires companies and countries to innovate to offer greater value as part of regional networks.

Reviewing and rebalancing business models as well as manufacturing and supply chain footprints has become a higher priority for business leaders across Asia Pacific. Since the onset of trade liberalisation in the 1990s, companies have been spreading their production and supply networks worldwide. However, for the past decade, supply chain risks have also been on the rise due to factors such as rising manufacturing costs, stricter regulations, maturing suppliers in developing countries and the emergence of new consumer markets. Together this has resulted in networks becoming more fragmented and complex than ever before. Consumption dynamics have exacerbated the burden further, with greater demand for order visibility, faster delivery and product choice leading to additional costs and risks. More recently, disruptions caused by COVID-19, combined with emerging forces such as trade uncertainties and geopolitical tensions, have further accelerated a reversal of globalisation trends towards more regional models that accommodate balanced and resilient sourcing and manufacturing.[46]

Companies in Asia Pacific now need to better prepare themselves for changing industry dynamics and consumer needs in order to offer greater value-add to brands establishing new regional supply chains. This requires a greater focus on innovation that enhances agility and productivity while catering to Asia Pacific's need for change. Regional enterprises need to capitalise on the window of opportunity provided by COVID-19 to redesign old systems and build new innovative solutions that enable more robust growth. Though businesses need to drive the innovation agenda, government support will also be crucial in building a stronger innovation ecosystem by enhancing infrastructure and improving policy support to boost stakeholder collaboration.

Sub-pillar 1

Developing balanced and resilient regional supply chains

Need for a more balanced and resilient model

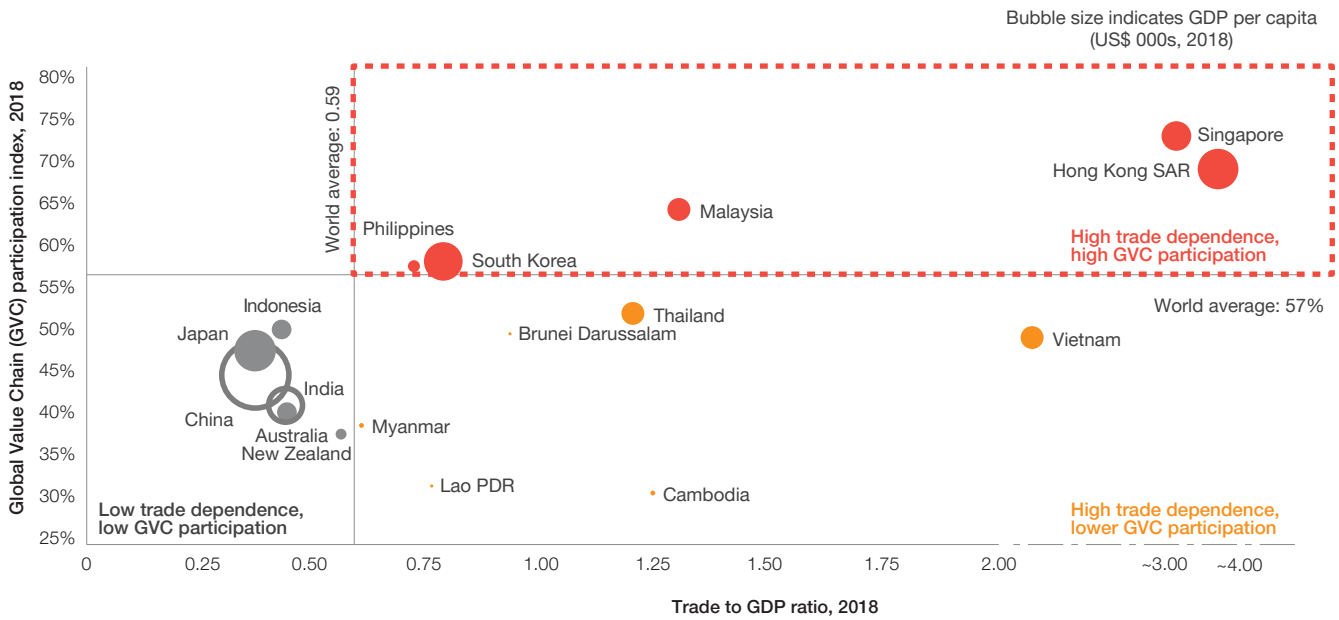
Disruptions caused by recent trade conflicts and the COVID-19 pandemic have intensified a growing risk consciousness among governments and companies, making a strong and urgent case to adopt supply chain models that are more balanced and resilient. Companies now need to focus on diversifying their manufacturing and supplier portfolio to become less dependent on a small number of markets, but also ensure that new suppliers meet their quality standards and are reliable and resilient to disruptive events, thereby strengthening the need for network visibility and minimising the response and recovery time from potential bottlenecks. As shown in figure 10, certain markets in Asia Pacific with a high dependence on trade and significant participation in global supply chains, such as Singapore, Malaysia, Philippines, Hong Kong SAR and South Korea, are expected to be at the forefront of this shift towards greater regionalisation and integration of product supply networks.[47]

Png Cheong Boon

Chief Executive Officer, Enterprise Singapore

Companies need to differentiate and strengthen their value propositions to stay ahead of competition. This requires building resilience in supply chains, as well as continuous innovation in business models, products and services. Companies need not explore innovation on their own. They can enter partnerships and be plugged into innovation ecosystems in local and international markets. Such partnerships expand companies' innovation capacities and capabilities, and strengthen their resilience."

Figure 10 Trade dependence and participation in global supply chains for key Asia Pacific markets



Source: ITC Trade Map, UNCTAD-EORA GVC Database
Note: The GVC participation index highlights how much an economy is connected to global value chains for its foreign trade. It includes two components - imports of foreign inputs to produce goods and services (backward GVC participation) and exports of domestically produced inputs to partners in charge of downstream production stages (forward GVC participation)

Rebalancing risks through regional networks

Asia Pacific's growing need for resilience is having a major impact on the span of supply chains, driving a shift away from a cost-driven globalised approach, towards a risk-driven regional mindset to finding network partners. In addition to localisation, companies also need to assess their vulnerabilities and reduce overdependence on a single supply source. Therefore, companies in Asia Pacific have started focusing on building greater redundancy in their supply chains to guarantee delivery to key customers, while simultaneously looking for alternative regional suppliers and delivery partners. Rising competitive pressures and changing consumer needs increasingly require companies to move closer to regional demand centres. In addition, a need to improve monitoring (e.g. to meet stricter standards) is resulting in a growing preference for regional procurement over distant locations. However, this does not indicate a complete replacement of global supply chains by regional networks, and the future will likely be more of a hybrid between the two — though with an increasing number of firms exploring regional options to strengthen resilience.[48]

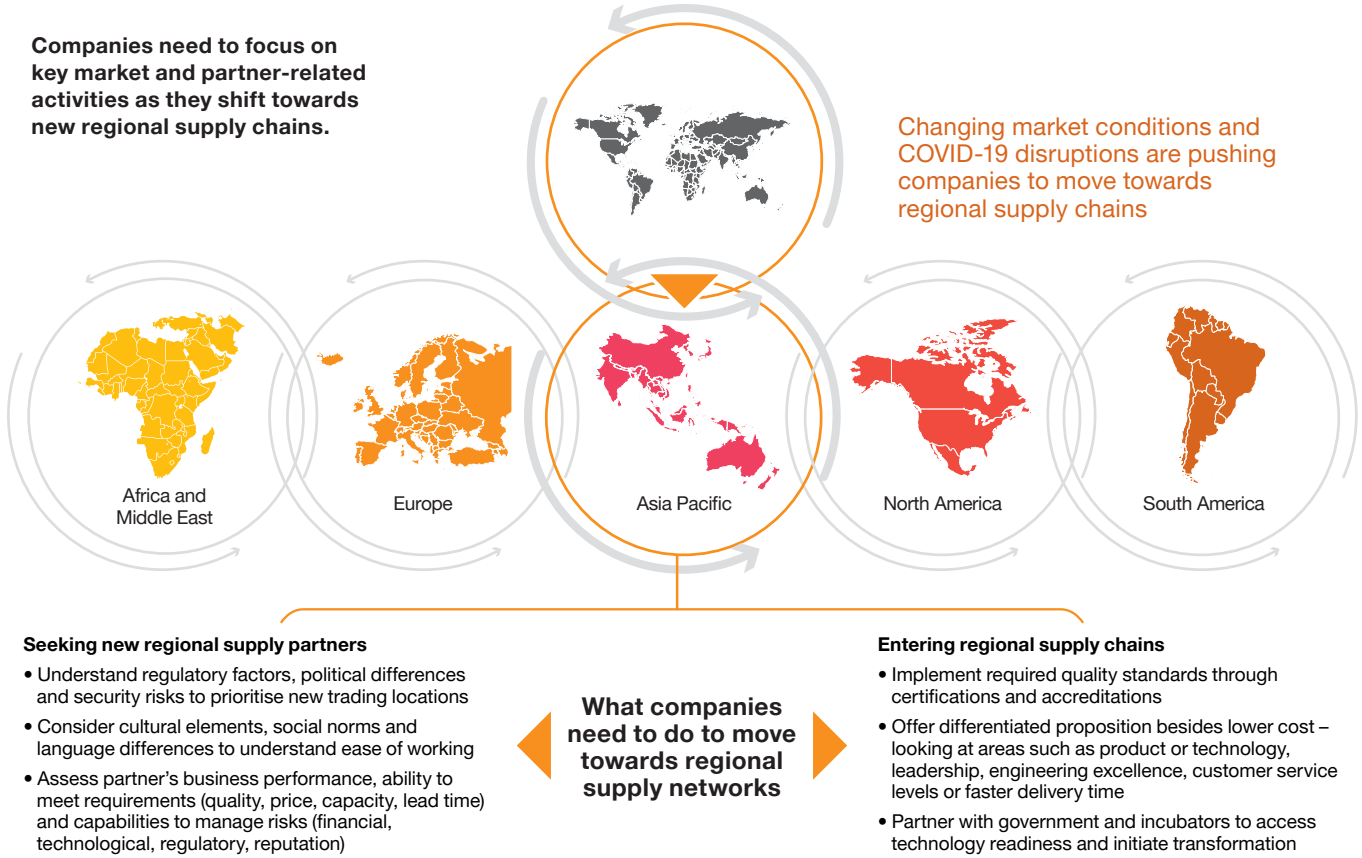
As companies seek to re-balance their supply chains, certain considerations need to be kept in mind for both multinational firms seeking new regional partners and local firms looking to participate in these emerging regional networks (see figure 11). Multinationals planning to source from Asia Pacific to address their regional consumers' demands, will need to establish a regional procurement network managed by a "control tower", and conduct a detailed assessment to identify sourcing markets and partner firms. On the other hand, rising competition among regional suppliers has made it imperative for local firms to start preparing themselves by adopting appropriate digital solutions, participating in innovation initiatives and strengthening workers' skills to become preferred partners for leading global brands.[49]

Allen Huang

Chief Executive Officer, Merry Electronics

Regionalisation is on the rise due to growing trade and geopolitical tensions. In line with these changing trends, we are also focusing on realigning our footprint to lower trade and other operational costs - mainly by diversifying presence to new regional locations to serve markets outside China. Expansion to Southeast Asian countries such as Thailand and Vietnam is being evaluated in this regard, while maintaining our presence within China to serve its large local market."

Figure 11 Shift from global to regional supply chains and considerations for industry players



Source: PwC analysis


Tokyo, Japan

Shifting to an integrated supply chain structure

To further enhance resilience, supply chains need to rebalance towards a regionally integrated model. Driven by the need for transparency, companies want greater visibility over their supply chain partners, which requires greater integration amongst network participants. To develop an effective and agile structure, multinationals need to take a lead and establish a technology-driven "control tower" (or supply chain hub) to centrally manage their regional production plants and supply networks. Such a control tower is equipped with a data analytics engine to monitor and manage regional networks, which is linked in real-time with different elements of the supply chain through emerging technology solutions. Building such an integrated network also requires new data processes to be established for effective information sharing, while strengthening collaboration among various risk functions (compliance, audit, cybersecurity), both within a firm and with external parties, to minimise the blind spots and build greater trust.[50]

Looking ahead, more advanced trading and logistics centres such as Hong Kong SAR, Shanghai, Singapore, and Busan can take a lead in becoming future-ready hubs for regional supply chains. These locations are equipped with stronger infrastructure, institutional capacities and support services to maximise the impact of an integrated model. Multiple initiatives have been launched by governments to develop next-generation infrastructure in these locations, and some multinationals have already initiated steps to build regionally integrated networks centred on these hubs.

Case example

Digitally enabled regional supply chains

Several governments across Asia Pacific have launched key digitalisation initiatives to support corporates develop future-ready supply chains.

In February 2020, Hong Kong SAR launched a program worth US$44.5 million to extend subsidies to third-party logistics (3PL) service providers in order to enabled them to adopt productivity enhancing digital technologies. Singapore has been implementing a Logistics Industry Transformation Map since 2017, to help the sector advance towards more digitally enabled supply chains. In 2019, the South Korean government invested in a block chain-based inter-terminal transportation system at Busan Port and allocated a further US$132 million for a smart port logistics system.[51]

Sub-pillar 2

Fostering a collaborative innovation ecosystem

A need for faster innovation

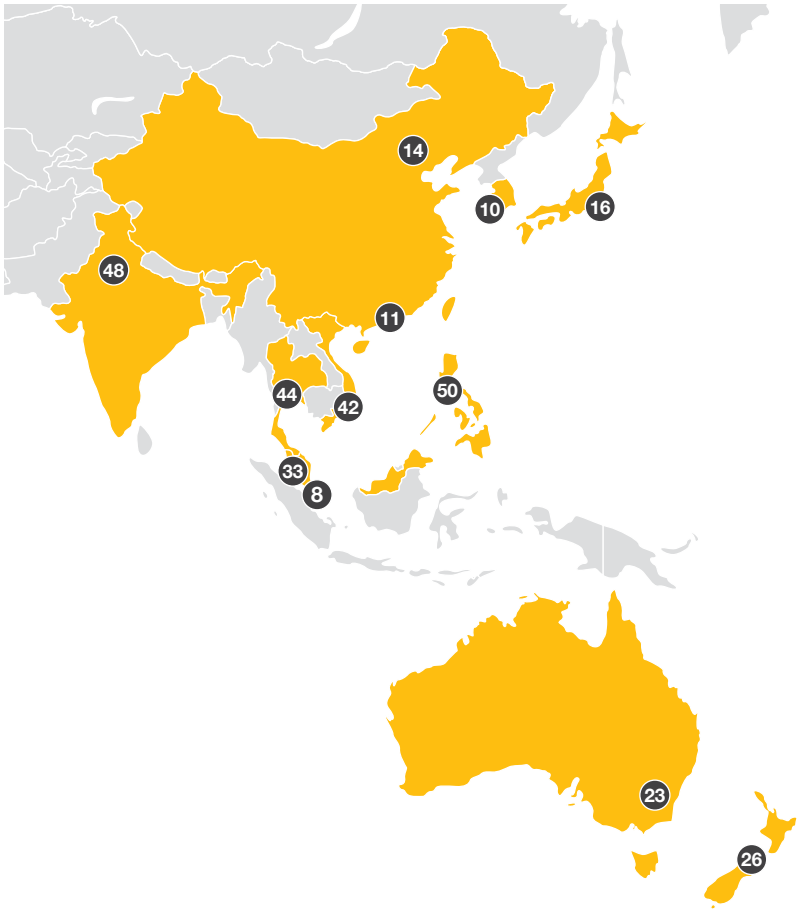
Companies in Asia Pacific need to urgently start preparing themselves to support emerging regional supply chains by building more innovative propositions than can help differentiate and enhance value-addition. This in turn requires regional stakeholders to work together to build a more effective innovation ecosystem for the future. The current economic and health crisis is quickly proving to be a catalyst for innovation across corporate and government organisations. Business and consumer needs have become more urgent and have the potential to change even faster, considering the region's significant SME and entrepreneurial base. Reacting to these quickly evolving requirements, driving faster and more localised innovation has become a critical component of the region's growth model that requires innovation to become an organic process executed frequently rather than a one-off project. There is also significant room for improvement. Only two Asia Pacific markets feature in the top 10 of the Global Innovation Index Rankings, indicating a need for change. However, achieving a visible shift for a region as vast as Asia Pacific requires a greater collective effort among multiple stakeholders to deliver a tangible impact.[52]

Will Zhang

President of Corporate Strategy Department, Huawei

Emerging technologies such as Artificial Intelligence are enhancing productivity and bringing cost efficiencies to a wide range of industries. However, to leverage the full potential of these technologies, companies both large and small will need to work together through partnerships and open source programmes to facilitate sharing of ideas and encourage innovation that mutually benefits their interests."

Figure 12 **Asia Pacific markets in the Top 50 Global Innovation Index rankings, 2020**



Asia Pacific market	Global rank (2020)
Singapore	8
South Korea	10
Hong Kong SAR	11
China	14
Japan	16
Australia	23
New Zealand	26
Malaysia	33
Vietnam	42
Thailand	44
India	48
Philippines	50

Source: Cornell, INSEAD and World Intellectual Property Organisation, Global Innovation Index, 2020

Establishing collaborative agile innovation ecosystems

In order to be agile, Asia Pacific needs to develop an innovation ecosystem — an enabling environment in which multiple entities can combine their strengths in pursuit of a shared objective. Such ecosystems, by being more sector-focused, can respond quickly to new challenges. Instead of aspiring to build a single large-scale innovation ecosystem akin to a Silicon Valley in the region, companies and countries should consider building smaller, more-focused collaborative ecosystems that align to a country's future vision for the sectors that will drive its future economy.

This may involve stepping away from the past, and therefore success will depend upon greater coordination among stakeholders that requires governments to identify and support innovation areas that can drive the economy forward, while inviting foreign direct investment and collaboration from companies and educational institutions. Having a multi-stakeholder focus will ensure broader alignment and help build a sense of co-ownership, allowing for synergies to achieve a targeted outcome. In addition, the compactness of the ecosystem will provide greater agility to explore new, innovative directions.

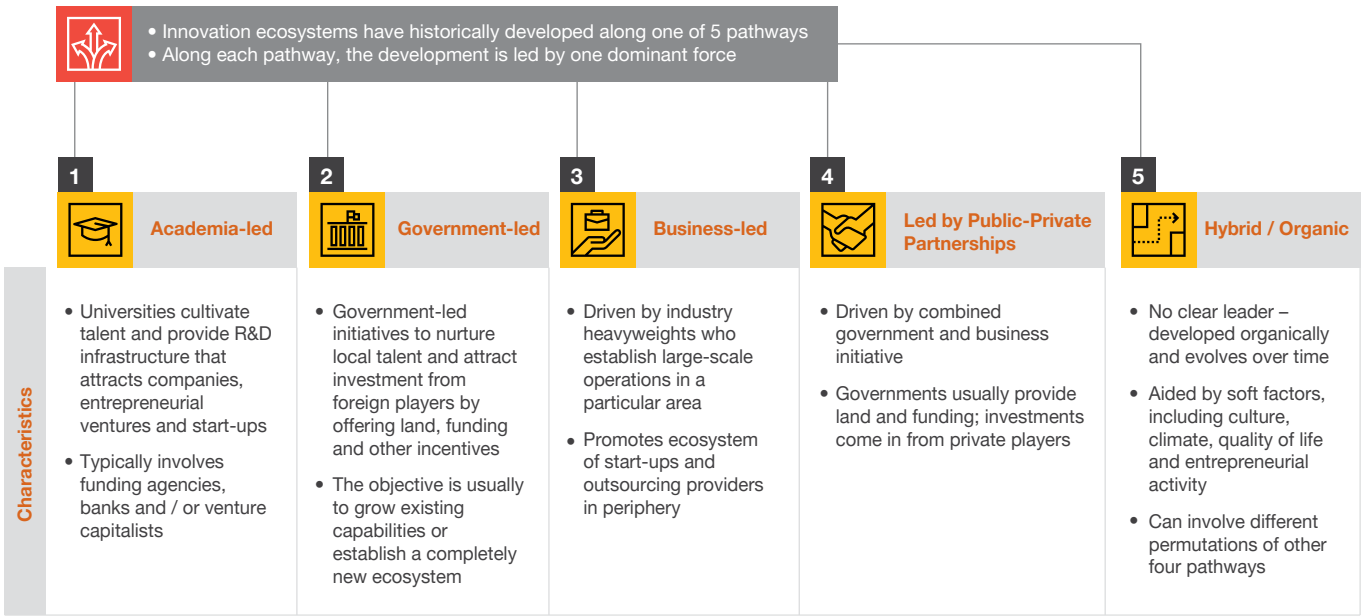
Le Hong Minh

Chairman and Chief Executive Officer, VNG Corporation

Innovation requires an exchange of ideas at regional and global levels. This can be achieved through partnerships and synergies among stakeholders such as large industry players, SMEs, investors and educational institutions. However, governments must take a lead in building such ecosystems by formulating policies that align the varied interests of the players involved."

Governments do not necessarily need to drive this objective, as innovation can be led by the business sector while being supported by policymakers. Typically, innovation hubs have been developed along one of five pathways as shown in figure 13. Going forward, the corporate, academic or government-led models are expected to primarily drive the creation of new ecosystems across the region.

Figure 13 Typical pathways for developing innovation ecosystems



Source: PwC analysis

The government-led model typically evolves from policy, focusing on attracting investment in strategic sectors aligned to the national agenda. In addition, government incentives and infrastructure support help build trust for companies and academic institutions to become part of the ecosystem. On the other hand, the academic model centres on renowned institutions of learning, where the availability of skilled talent, as well as research and development focus, help drive innovation, bringing in participation from the private sector and the government. Finally, the business-led model involves well-established companies driving investments and setting up their own ecosystem to promote innovation.

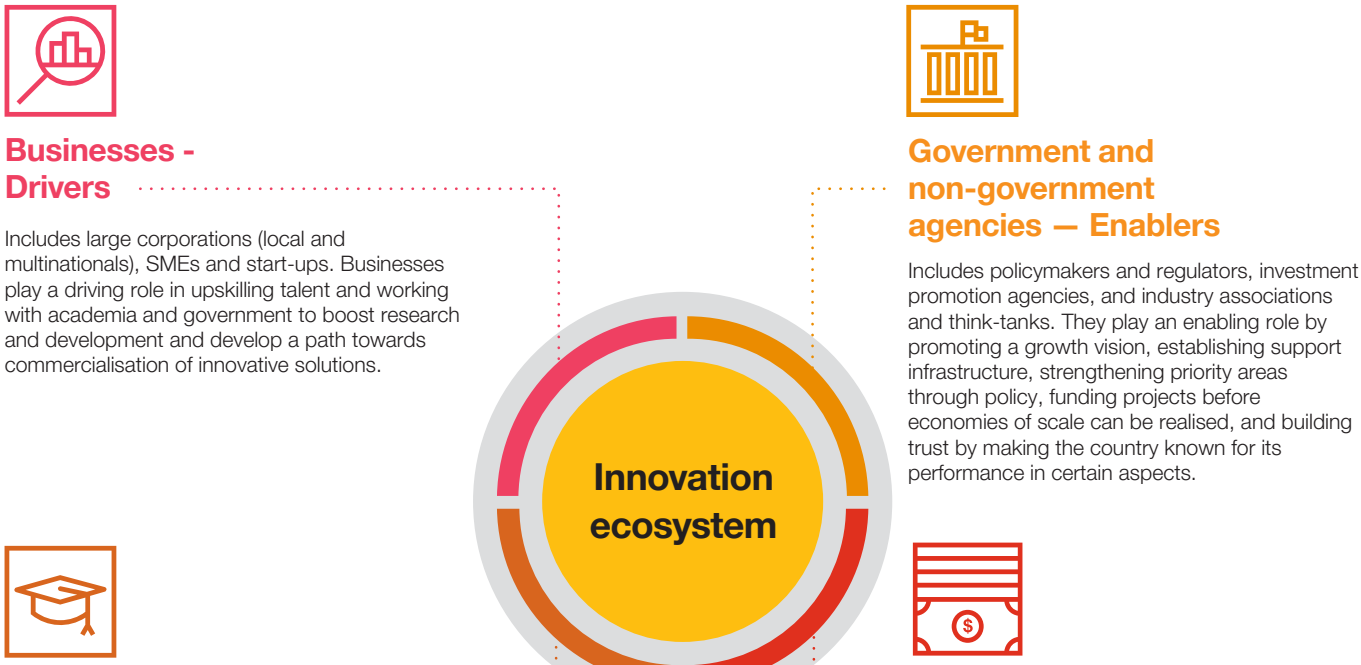
Regardless of the pathway chosen, stakeholder participation is critical. Realising the need to come together with a sense of urgency, all stakeholders will be required to take on different roles for the ecosystem to achieve impact. They need to work together, not for altruistic reasons, but because each party can play a crucial value-adding function for the system to deliver. These roles are highlighted below (see figure 14).

Case example

Sydney Innovation and Technology Precinct

The New South Wales government plans to invest US$34 million to develop the Tech Central precinct in Sydney, which is expected to host start-ups and help scale-up businesses. The government is working in collaboration with the University of Sydney and industry experts from start-ups and large technology corporations to establish the precinct. The projects offer an example of a corporate-led innovation ecosystem with Atlassian, an Australian software company signing a memorandum of understanding with the government to be a founding partner for the hub. Positioned as an anchor tenant, the company is setting up its headquarters within the precinct and targets to reach a headcount of 4,000 by 2025. As a large-scale technology company, Atlassian aims to act as the centre of gravity attracting other industry players to the region, while creating an ecosystem that attracts talent from across the country and enables easier exchange of ideas to foster innovation.[53]

Figure 14 **Innovation ecosystem participants and their roles**

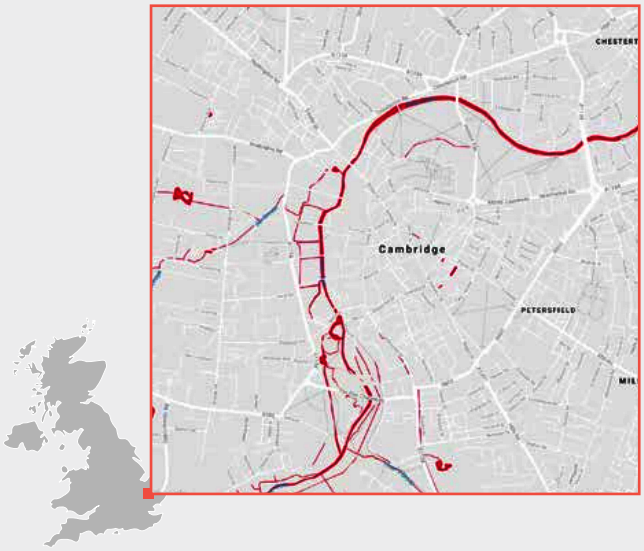


Source: PwC analysis

Case example

Cambridge Innovation Cluster (Silicon Fen)

Cambridge Innovation Cluster, also known as the 'Silicon Fen', is one of the largest innovation hubs in Europe



'Cambridge Phenomenon', a term used to explain the continuing rise of globally significant companies and innovation in the small town of Cambridge, started in 1970 with the foundation of Cambridge Science Park. Today, the region has become one of the largest technology and bioscience hubs in Europe - with companies in the cluster generating a collective turnover of almost US$15 billion.

Source: The Guardian, Financial Times

Key highlights of the ecosystem

4700+
corporations, venture capitalists and start-ups are part of the cluster

~61,000
people are employed in the ecosystem

16
unicorns have originated from the cluster so far

Factors contributing to region's success

- Tax breaks, low land prices, affordable housing and low crime rate attracts large corporates, start-ups and venture capitalists
- Research universities provide safe environment for start-ups to test their ideas and innovate
- Start-ups and corporates get access to skilled workforce from university schools
- Technology spill-overs from near-by high-tech industries and start-ups further fosters innovation

Asia Pacific collaboration for accelerated innovation

Considering the scale of change required within Asia Pacific, these innovation hubs need a collective effort for impact. A "cross-stakeholder, cross-border" collaboration model (e.g. Chinese companies working with Malaysian universities) can enable Asia Pacific to innovate even faster and create a common goal for lasting change. This is, however, only possible if regional governments work together to facilitate cross-border cooperation across institutions and encourage cross-fertilisation of ideas. Different markets in the region need to build specialisation across a vast range of technologies or sectors, and in the process developing complementary strengths that make them more willing to work together. This will involve hard decisions about where to direct investment and capability, but COVID-19 has given governments and business the opportunity to make tough decisions on building up areas that can strengthen competitive advantage for the future, in an environment that is less resistant to dramatic change than before the pandemic. Besides being mutually beneficial for regional markets, such a model is also relevant for different corporate segments with smaller firms being able to access funds, leverage a wealth of experience and achieve scale faster, while larger players are able to be more agile in driving innovation.

Moving forward

Driven by COVID-19, global networks are being rebalanced with regionally integrated supply chains to develop stronger resilience to disruptions. However, the extent and pace of change remains dependent on the level of digital readiness within individual markets, the ability of companies and countries to invest in transformation initiatives while managing COVID-19, and changing geopolitical conditions within Asia Pacific. While multi-nationals need to take the lead in developing regional supply networks, local firms also need to drive agile innovation to offer more value-adding propositions to become a part of these. For this, building a more effective innovation ecosystem within Asia Pacific that fosters collaboration across stakeholders (governments, academics, businesses and funding bodies) and regional markets has become more crucial than ever before.

Key takeaways

What actions are needed?

Multinationals need to lead the development of regionally integrated supply chains, establishing regional control hubs, creating new data exchange mechanisms and supporting regional partners in technology adoption.

Suppliers looking to enter regional networks need to offer new innovative propositions, implement required quality standards and work with other ecosystem participants to improve their technology readiness.

Businesses need to drive innovation to address Asia Pacific's urgent need for change, with the government acting as facilitators, academic bodies as collaborators and funding bodies as scouts to find future champions.

The innovation ecosystem needs greater cross-border focus. Intra-regional collaboration has become crucial to innovating faster by addressing resource gaps and sharing best practices.

Rebalancing global supply chains with regional networks offers new opportunities for both large and small-scale firms in Vietnam and across Asia Pacific. However, companies need to strengthen their capabilities with innovation to ensure they remain competitive."

Van Dinh Thi Quynh

Country Senior Partner, PwC Vietnam

Leh City, India

Pillar four

Expanding and future-proofing the labour force

The fundamental need for future-ready talent

Why now?

01 Plans to rebuild Asia Pacific require strong support from the region's people, which necessitates existing workforce skills to be reconfigured in alignment with the growth pillars of the future.

02 Systemic changes need to be initiated today to identify and address gaps in skilling next-generation employees entering the region's future workforce, targeting interventions from an early age.

03 COVID-19 has disrupted the traditional workplace environment, providing an early view into the future and presenting an opportune time to reinforce the need for change and drive new initiatives.

Jobs in Asia Pacific are changing. As discussed in Pillars 2 and 3, technology and trade are taking a different shape, driving the digital transformation of traditional value chains and regionalising new growth opportunities. Technology increases productivity, but it also creates concerns about the implications of automation on jobs — enhancing the necessity of ensuring workers maintain the relevance of their skills as technology continues to advance. Additionally, as highlighted in Pillar 3, supply chains are shifting focus towards regional markets, requiring new skills for Asia Pacific companies to add value to these emerging regional networks.

No change can be successfully delivered without equipping people for the future, which means two pertinent areas must be addressed. Firstly, Asia Pacific's existing workforce needs to quickly adapt to foster digitalisation and drive higher-value addition to avoid losing relevance in changing times. Secondly, taking steps to enhance the skills and workforce participation of future employees is also critical, especially considering young people account for almost half of Asia Pacific's jobless population. Governments, in particular, need to lead in building the future workforce, sharing their vision and working with educational institutions, businesses and families to develop an educational ecosystem that prepares the students of today for the jobs of tomorrow.[54]

Sub-pillar 1

Upskilling today to be relevant tomorrow

Need for role-specific and SME-focused efforts

Asia Pacific's workforce is facing a widening skills gap on two fronts — digital expertise and higher-value skills — owing to rapidly evolving technologies and the increasing regionalisation of businesses. Regional stakeholders should focus on understanding how existing roles are evolving and identify the skills needed to remain relevant in the emerging economic landscape. While it is commendable that both large businesses and governments are investing in upskilling workforces, these efforts need to be more role-specific, rather than providing broad-based training that is often too focused on digital aspects and only relevant to a few. Reskilling the SME segment in Asia Pacific needs to become a regional priority as well. Being the majority employers of today, transformation in this segment is critical. There is also an urgent need for smaller firms, as they seek to participate in more regional supply chains, to prepare for the future by adequately equipping their workforces with the skills required to support larger companies seeking alternative suppliers and production centres.

Designing a holistic reskilling program

An effective reskilling strategy not only addresses the needs of companies and individuals but also considers wider critical development areas for the relevant industry and the country in which it is based, to drive greater value addition and boost long-term national growth. To expand their growth focus from local to regional markets and to integrate into emerging regional supply chains, countries should upskill people for higher value activities in industries where the country has a competitive advantage in the region. Their focus therefore must shift to new skills that can support the industry's move up the value chain.

To enable a purposeful upskilling program, companies need to align their growth strategy with their industry's trajectory and translate it to workforce capability and capacity gaps to be addressed. While some companies have been implementing upskilling initiatives, these efforts tend to focus on company-wide and broad-based training, which are insufficient to be transformative. Companies must instead focus on developing targeted skills: building a cohesive yet dynamic roadmap that aligns with the evolution of the role, articulates the milestones and highlights resources required to achieve these defined goals. It is also important to note that upskilling is a dynamic process that needs to be undertaken with sufficiently agility to adapt to rapidly changing role requirements.

Another cornerstone of upskilling is the empowerment and motivation of employees. Companies must venture beyond developing technical skills, addressing the social and emotional aspects required to overcome resistance to change, and making employees aware of the importance of new skills. COVID-19 has further required business leaders to undertake the new challenge of managing employees in a changing world. Building relationships has become a critical aspect of a remote working environment, and more so in Asia Pacific, where face-to-face interactions have traditionally played a significant role. A world reshaped by the COVID-19 pandemic requires business leaders to lead from afar and develop skills in managing ambiguity while adopting an approach of hyper-personalisation to motivate and support employees as they engage in upskilling. Figure 15 highlights the various components of a holistic upskilling approach.

Raizo Sakoda

President, Hitachi Academy Co., Ltd.

The need for new skills at the workplace has been accelerated by the pandemic. Companies now need to act quickly in reskilling their employees, to develop an understanding of emerging technologies and tools required to stay relevant in the future. Further, these trainings must be designed and customized for all age groups, thereby supporting the workforce with new skills throughout their career journey."

Figure 15 **Designing a holistic reskilling strategy**

Key considerations for an effective corporate upskilling strategy

Strategic alignment

Assess future business needs and identify skill gaps

- Define corporate growth strategy in line with the industry's trajectory and translate it to the workforce capability and capacity gap, according to market, and functional priorities that have the greatest impact on delivering business value
- Develop skill architecture, map skill and competency needs
- Validate a case for change to upskill the organisation

Effective enablement

Build a well-supported learning strategy

- Develop a cohesive yet dynamic roadmap that aligns with the evolution of the roles to prioritise
- Ensure the learning strategy is sufficiently enabled by effective organisation and deployment of resources such as how the Learning and Development (L&D) team is structured and what technologies can be leveraged to deliver on upskilling goals

Empowerment for change

Implement a cultural shift to support change

- Develop managerial skills to manage ambiguity and adopt a hyper-personalisation approach to motivate employees
- Venture beyond developing technical skills to address employees' social and emotional skills to strengthen resilience
- Align financial reward and incentives, talent and performance management to upskilling goals
- Set up a change strategy. For example publish success stories, use gamification to increase participation

Targeted learning

Tailor training to specific firm and employee needs

- Employ a role-specific approach. Define granular job level skills to assess employee skill profile and customise learning needs
- Develop an engaging and accessible learning experience with innovative approaches, tools and technologies to enhance effectiveness. For example encourage collaborative social learning through support groups, online platforms or informal meetings

Agility for growth

Enable continuous review review to ensure relevance

- Integrate organisational capability needs and upskilling progress into the yearly planning cycle
- Measure Return on Learning Investment and Employee Engagement
- Link indicators to business performance data to create visibility for business impact
- Set up processes to continuously assess effectiveness and iterate the approach

Government enablers to support upskilling

- Develop national upskilling strategy that aligns to industry and regional priorities
- Formulate policies to enable conducive demand and supply conditions with the appropriate incentives and support
- Commit to funding upskilling initiatives
- Target initiatives to address inequalities in upskilling opportunities or workforce that might fall through the cracks

Source: PwC New World New Skills Report, PwC Future of Government Report, PwC discussions with subject-matter specialists


Kuala Lumpur, Malaysia

Case example

Talent initiative by Asia Pacific Economic Cooperation (APEC)

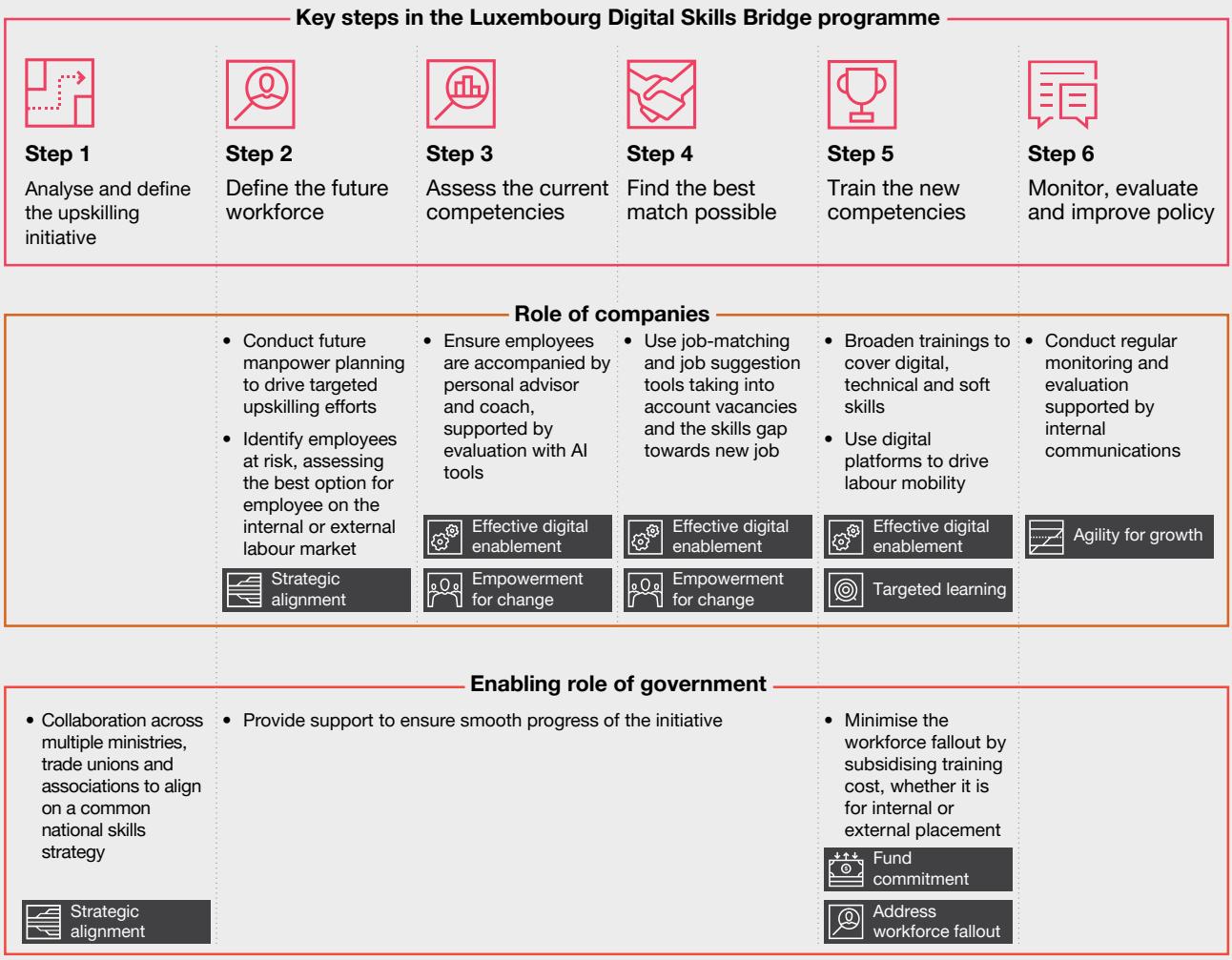
APEC forum

The importance of integrating elements across national, enterprise and individual levels is reflected in APEC's talent initiative. Recognising the importance of defining skill gaps and connecting them with academic institutions and training providers, APEC developed a set of data science and analytics competencies in 2017 to serve as a resource to equip academic institutions and training providers across APEC economies, aligning curricula, courses and programs to help fill the gap between skills and employer demand. This was followed by an industry-driven implementation roadmap that informed training institutions on the delivery of learning outcomes.[55]

Luxembourg Digital Skills Bridge Initiative

The initiative demonstrates the importance of having a well-defined government vision to drive impact. In 2018, the government of Luxembourg (Ministries of Education, Labour and the Economy) joined forces with trade unions, industry associations and businesses to form the Luxembourg Digital Skills Bridge initiative, jointly developing a national skills strategy that engaged companies to develop manpower plans and identify employees at risk due to digital transformation. The initiative focused on fostering long term employability, even if that meant investing in employees who might move to other companies in the future.[56]

The Luxembourg Digital Skills Bridge initiative is designed to minimise workforce that falls through the cracks, by adopting a common vision that addresses the implementation challenges at every level

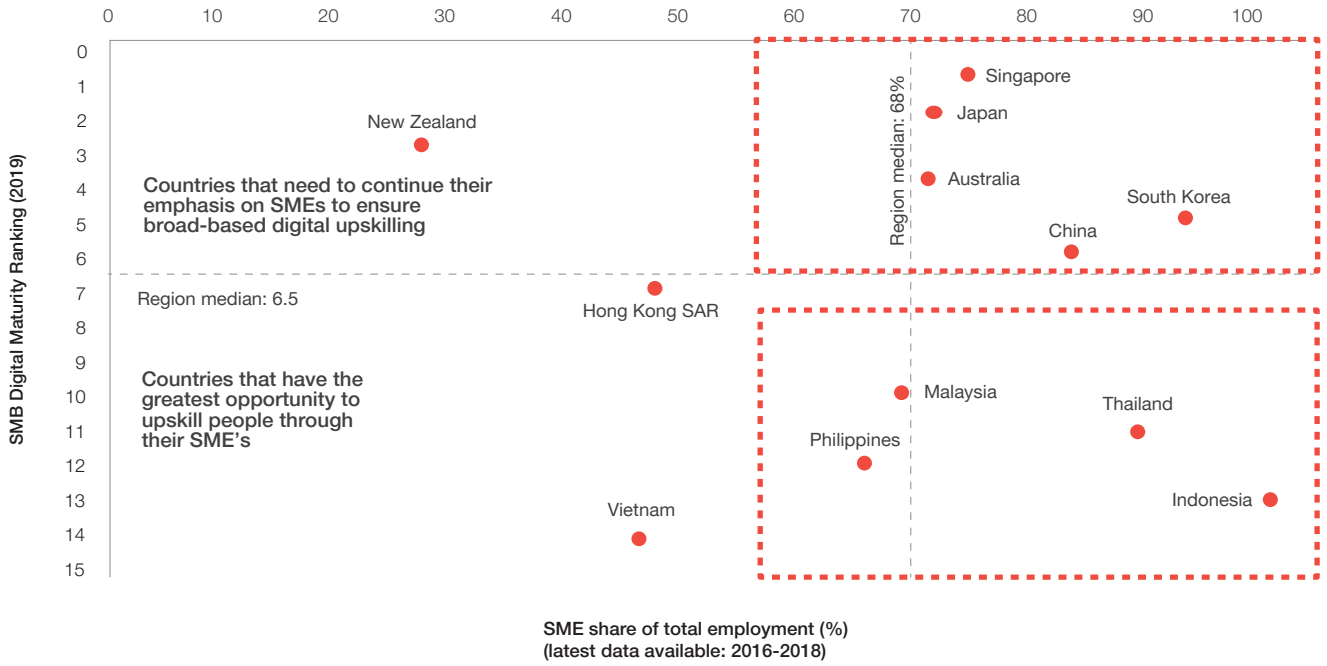


Source: European Commission, PwC Upskilling for Competitiveness and Employability Report, PwC analysis

Exploring partnerships to drive SME upskilling

Effective upskilling efforts require a customised approach. This is an uphill task for most companies, but it is particularly challenging for SMEs. SMEs today form the backbone of the Asian economy, accounting for more than 98 per cent of businesses and providing two out of three private sector jobs in the region. As such, if SME skills can be enhanced most of the region's working population will benefit. Key Southeast Asian markets such as Malaysia, Thailand, Indonesia and the Philippines show a stronger need for an intervention in this regard (see figure 16), having significant SME employment and lower digital maturity in the SME segment at present.[57]

Figure 16 Relevance of SME digital upskilling in Asia Pacific



Notes: SME share of employment data for Brunei, Myanmar, Cambodia, Laos is not available.
Digital maturity assess the company's digital capabilities in strategy and organisation, process and governance, technology and people skills. CISCO defined SMB as businesses that employ 50-499 employees across Financial Services, Infrastructure, Manufacturing, Services, Public Sector, Retail and Wholesale.
APEC captures data in alignment with each country's definition of an SME.

Source: Asia Pacific Economic Cooperation (APEC), Cisco SMB Maturity Index

However, SMEs face limited access to finance and a lack of management expertise, curtailing their potential to drive upskilling and enable transformation. When governments provide support, it is often in the form of training content that is too generic or characterised by a lack of co-ordination from government agencies. Governments therefore increasingly need to enable SMEs to learn from the right institutions, rather than deliver these programmes themselves.[58]

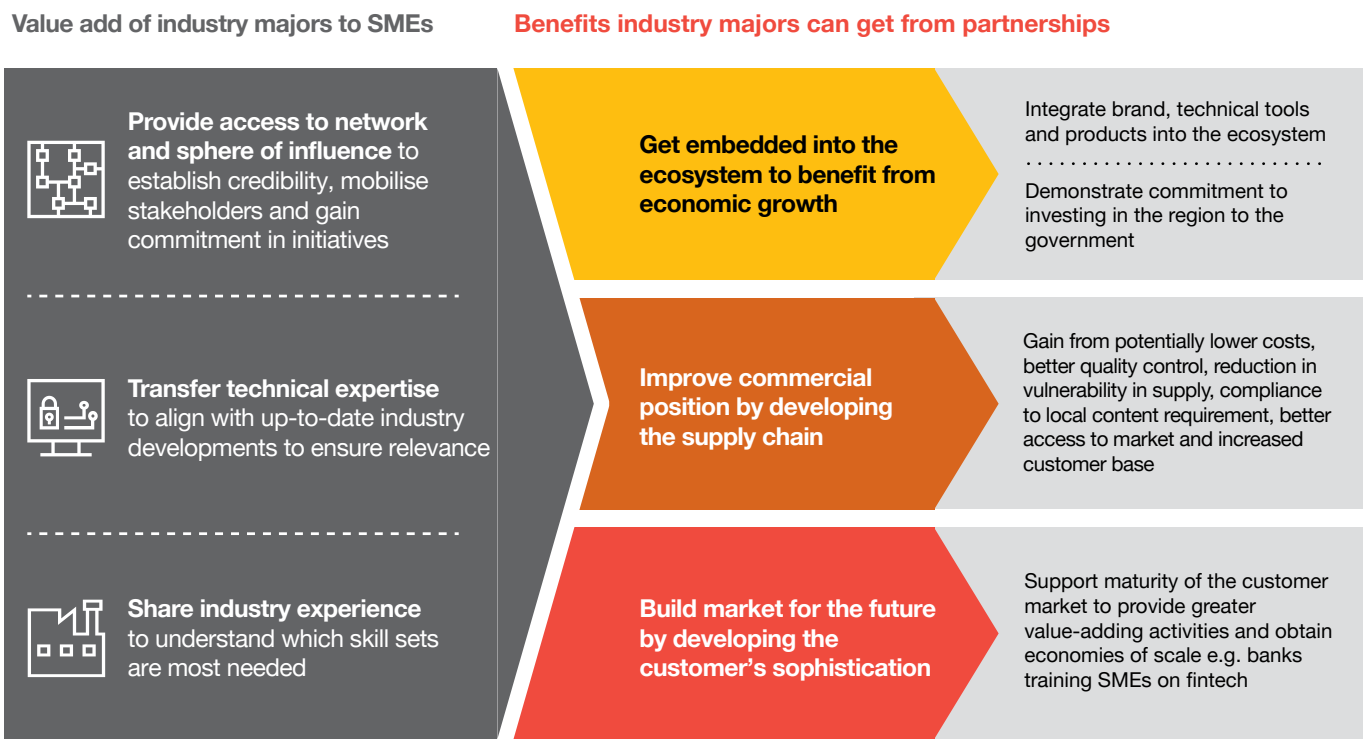
A more fruitful approach could see smaller companies form partnerships with their industry's major companies. This enables SMEs to learn from industry experts in the ecosystem, because industry majors possess the network, expertise and experience to strongly support smaller firms as they engage in upskilling. Such an association can help larger companies in assimilating their brands, technical tools and products into an ecosystem, while allowing SMEs to embed themselves in regional supply chains. Efforts to develop suppliers can also benefit large companies in the form of lower costs, better quality control, reduced supply chain vulnerability and stronger compliance to industry requirements. Similarly, on the distribution side, by helping smaller partners, industry majors can benefit from improved market access and lower distribution costs. (see figure 17).[59]

Albern Murty

Chief Executive Officer, Digi Telecommunications

We believe helping SMEs and our business partners with digital transformation and the know-how will enable the entire supply chain to become more competitive, which in turn improves profitability for all. We have collaborated with various partners across a variety of platforms such as MY Digital SME, to provide practical modules, seminars and insights to small and medium-sized enterprises, to help them bridge the digital gap."

Figure 17 Partnerships between industry majors and SMEs



Source: PwC analysis

Case example

Developing the SME sector through industry partnerships

Singapore

SkillsFuture Singapore has identified industry majors as "Queen Bee companies" to drive employer-initiated skills development efforts and train the sector beyond their own needs, especially SMEs. As of July 2020, there are 17 "Queen Bee companies", including local firms as well as foreign companies.[60]

SkillsFuture Singapore has identified Bosch Rexroth as one of its "Queen Bee" companies to influence other companies, particularly SMEs to drive skill development efforts

Bosch Rexroth's value add to the programme

- **Network and expertise**
- **Industry knowledge**
- **Trained personnel**

How its value is captured in the programme design

Drives proof-of-contents and encourages enterprise adoption in advanced manufacturing technologies

Co-develops training content with Singapore Polytechnic by:

- Validating the relevance of skills training
- Providing global insights on emerging jobs and skills required in advanced manufacturing
- Producing bite-sized modules to help manufacturers transform

Trains a pipeline of Industry 4.0 specialists who will be certified by the Singaporean-German Chamber of Industry and Commerce

Target impact

To train about **1,500 workers** and support **300 companies** in five years

Source: Robert Bosch (SEA) Pte Ltd, PwC analysis

China

China's National Development and Reform Commission has launched a programme in cooperation with major enterprises and other stakeholders to establish online platforms that support SMEs in their digitalisation journeys. These platforms are aimed at providing targeted assistance to SMEs in digital marketing, smart payments, online financing and digital management – strengthening their competitive advantage through cost reduction, efficient supply chain management and increased online traffic. The platforms also facilitate vocational education trainings through online courses, to help SMEs upskill their workforce to new digital capabilities required for an organisational transformation.[61]

Sub-pillar 2

Preparing the employees of tomorrow

Need for a government-led strategic vision

Asia Pacific constitutes 60 per cent of the world's youth population, which represents a significant source of energy and creativity. Though only 20 per cent of the region's workers today are aged between 15 and 24 years, young people account for almost half of Asia Pacific's jobless. This is a major concern and has the potential to intensify if no urgent steps are taken. Unless jobs of appropriate quantity and quality can be created, the social and economic growth potential of the region could be compromised. To that end, it is critical for governments to develop a well-defined vision that allows various participants in the education "ecosystem" (including industry players, academic institutions and families) to collaborate on the basis of their strengths. Governments need to articulate a compelling vision of what the future looks like, highlighting strategic sectors and the corresponding manpower capability and capacity gaps that need to be addressed. The COVID-19 pandemic has reduced resistance to change amongst people, and has therefore provided an opportunity to take hard decisions. Besides this, developing a cohesive strategy that translates this vision across the "education journey" and engages various stakeholders — parents, educational institutions, industry players and investment promotion agencies — is also pivotal for tangible change to take place.[62]

Connecting government's vision to the larger ecosystem

Aligning the education ecosystem to a distant vision is not an easy task. Governments reinforce the vision with policies or investments, but the COVID-19 pandemic has also provided the world with a window to the future — giving everyone from children and parents to employees and employers a preview of not just what a transformed school and work life will be like, but also a chance to live it too. This real premonition has enabled the world to appreciate how jobs may change and what skills will be needed to be successful in the future. Governments now need to leverage this sudden change to redefine career readiness and empower children with the right skills for a new spectrum of roles.

Governments in Asia Pacific need to lead from the front, first by identifying priorities for future growth and the associated sectors driving these, and followed by articulating new roles and responsibilities required from those in education, business and the broader society. The vision must be brought to life from the preschool level of the education journey. Governments can start by reshaping career perception of jobs critical to the country. The unique value of critical professions can be brought to life through storybooks, nursery songs, playgroups and activity corners in the classroom. Finally, being key influencers, parents need to be actively engaged through workshops or communication campaigns to support what the government and the school are trying to achieve.

Kyoto, Japan

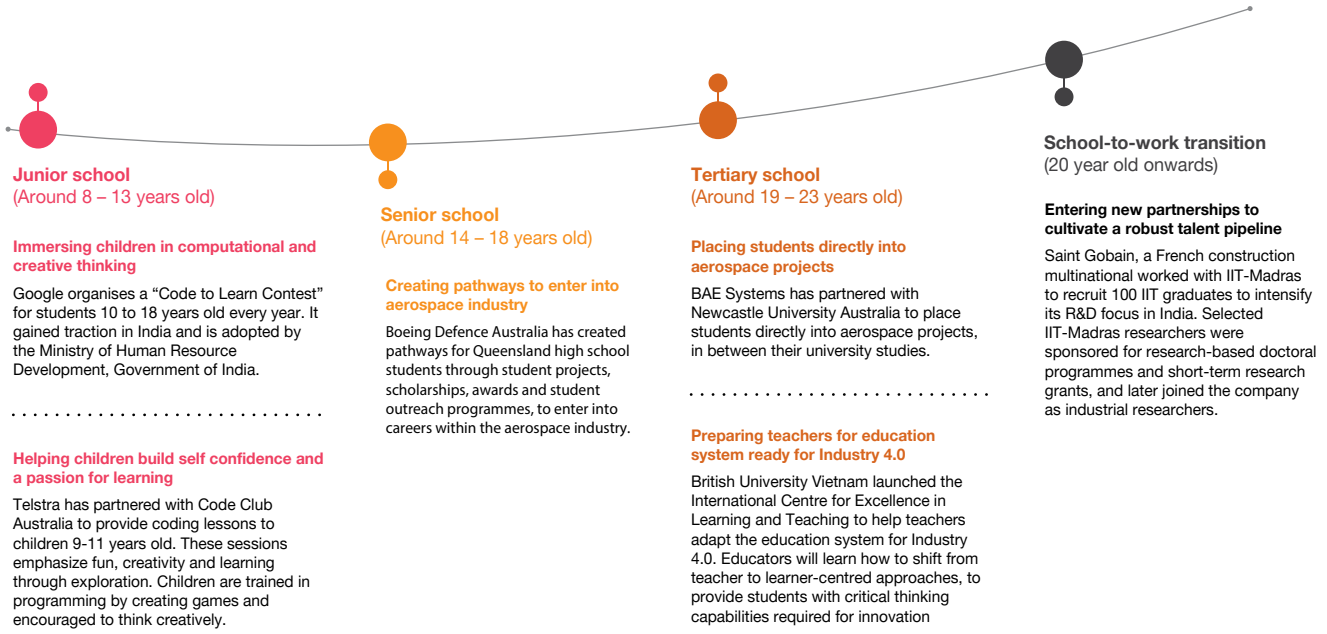
As students progress to junior and senior school, governments can collaborate with industry players to better understand the taxonomy of future jobs, and enable targeted interventions geared towards the country's growth ambitions. With real-world inputs from industry players, curricula can put more emphasis on career exploration. Activities such as exploratory camps and skill competitions can help ignite student interests in specific areas such as coding, while building their imagination and awareness — self-navigational skills that can guide them in an increasingly complex and uncertain world. Figure 18 showcases examples of how corporations in Asia Pacific are already participating in shaping the future education journey.

Raizo Sakoda

President, Hitachi Academy Co., Ltd.

The government of Japan is working with industry players and academic institutions to transform the education system in order to prepare for Society 5.0 - a next-generation society living with technologies such as AI, IoT and robotics. The transformation plan stresses on development of human skills such as communication, leadership and endurance, while also emphasising on building basic digital skills for all."

Figure 18 Industry players partnering with schools to upskill students throughout the education journey



Source: Company websites and press releases, Economic Development Board of Singapore, Press articles

Higher learning is where many students make the leap from education to industry; it is also where many are at risk of falling through the cracks. Asia Pacific has been held back by the lack of industry-ready graduates, a trend that is accelerating as digitalisation transforms business models. In addition, the education system is saddled by an increasing gap between vocational schools and universities, which is fuelled by cultural biases in many Asia Pacific nations.[63]

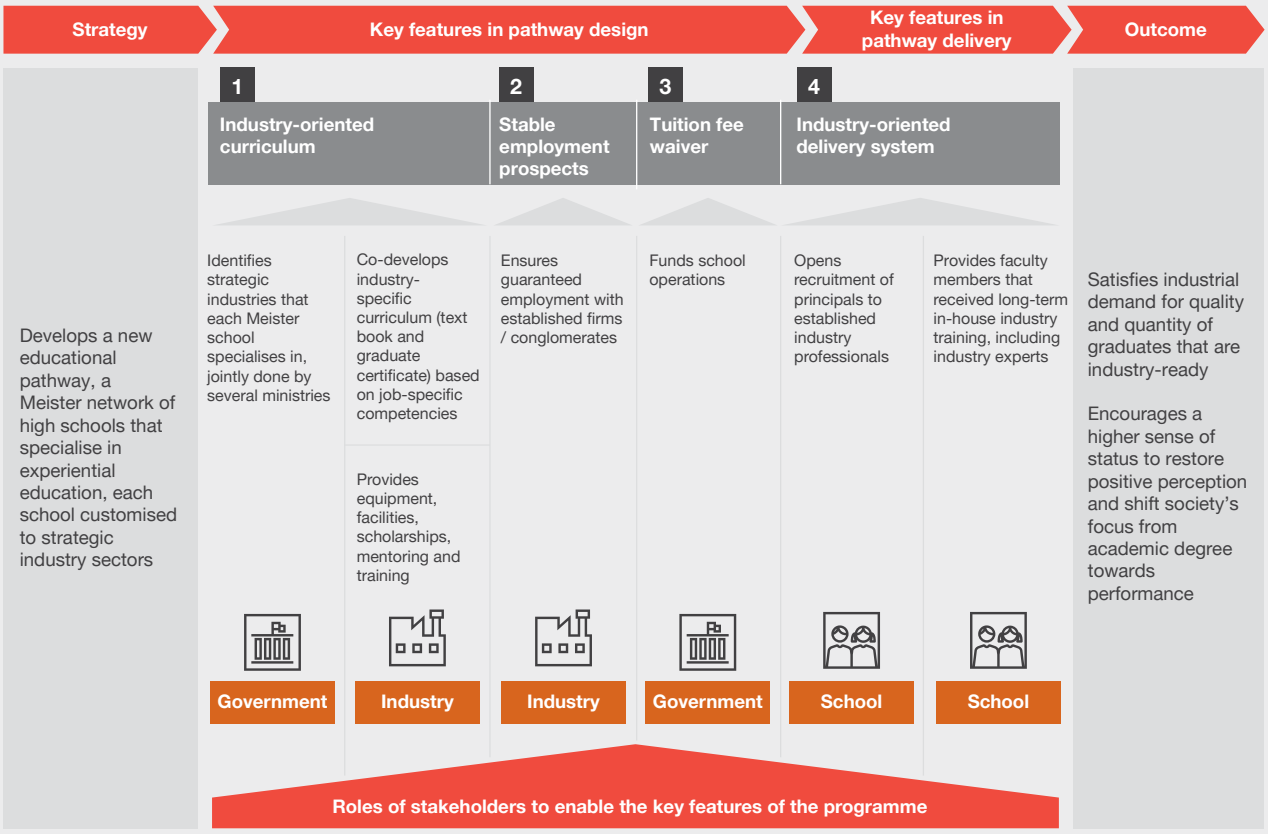
Governments can play a pivotal role in bridging the skills gap by focusing on these issues. An important lever is to tailor public funding to targeted interventions and learning outcomes. This can come in the form of incentives to improve workplace training, development of national competency standards that reflect critical skills in key industries, or measures to ensure educators are adequately equipped to deliver industry-relevant learning outcomes. By bringing foreign investments into strategic sectors and solidifying the demand for specific skills, governments can present a more compelling case for a student to embark on an educational pathway. Governments should also re-examine the possible pathways suitable for students to meet different industrial needs. The education system should also reflect a shift in emphasis from purely pursuing academic grades to building a student's resilience in the face of change, developing a willingness to take risks and innovate, and fostering the ability to charter self-directed lifelong learning.[64]

Case example

Collaboration to develop tailored job competencies — Meister Network in South Korea

South Korea has developed an innovative, demand-oriented approach to address skill gaps in its labour market. To strengthen vocational skills for direct labour market entry, South Korea has established a new pathway, the Meister schools, each of which is dedicated to strategic industries. The curriculum and certification are co-developed by major companies and delivered by faculty that includes industry experts, while offering tuition fee waivers and guaranteed employment from certain participating companies. Recognised by the World Economic Forum, the Organisation for Economic Co-operation and Development (OECD), the Asian Development Bank and the Centre on International Education Benchmarking, the Meister school system provides a best-practice reference to nurture industry-ready graduates.[65]

South Korea developed the Meister network of schools to strengthen industry-academia collaboration in developing job competency tailored to industrial needs



Source: National Centre on Education and the Economy, Asian Development Bank, World Economic Forum, Organisation for Economic Co-operation and Development, PwC analysis

Moving forward

COVID-19 has turned upskilling from being a human resource project to a strategic imperative for commercial survival that has reconfigured the way people work and contribute to future growth. With a role-specific reskilling agenda aligned with the industry's growth plans, businesses can more suitably develop a future-ready workforce. The SME sector in particular is key to enabling visible impact, and by partnering them with industry majors, a mutually beneficial strategy can be created to elevate skill development for the segment.

Governments also have a critical role in setting out a clear vision and pushing engagement across the ecosystem to deliver change. Besides moving to these new roles, developing mechanisms to enable life-long learning, policies to harness regional talent mobility and future-ready social safety nets have become crucial for lasting success.

Key takeaways

What actions are needed?

Initiatives to upskill the existing workforce need to be aligned with specific industries and roles required to support the nation's move up the value chain.

Businesses need to design a cohesive and agile talent development plan, in line with the industry's growth trajectory and evolution of specific roles, while enabling a cultural shift through personalised interventions.

Leading firms need to work with SMEs in their supply chains, extending market and technical assistance required to make them future ready, in turn benefiting from optimised costs and lower supply chain risks.

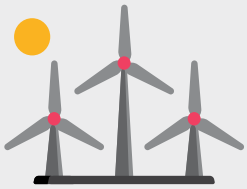
Governments need to lead in developing the future workforce, articulating their visions for growth, creating incentives for change and driving targeted engagement with other participants in the ecosystem.

Amy Cai

One Firm Service Managing Partner, PwC China

Companies need to adapt flexible and creative talent plans as per the country's growth vision, to ensure industry relevance and future readiness of the workforce. Continuous engagement with the government, education and other professional institutions as well as the community will be necessary to appropriately skill the next generation."

Bali, Indonesia



Pillar five

Building climate change resilience towards a net-zero future

Reinforcing the need for sustainability

Why now?

01 Rising instances of climate disasters have raised questions over the viability of historical models, more so with Asia Pacific being region of the world most impacted by climate change.

02 Fast growing urbanisation and consumption are making emissions and waste management a major challenge, requiring a concerted effort to move towards a net-zero economy.

03 Food security concerns are becoming critical, considering high levels of undernourishment, a sizeable and expanding population base, declining resources and frequent weather disruptions.

Enabling a sustainable future by moving towards a net-zero economy has never been more urgent for Asia Pacific, with rising instances of climate-led disasters demonstrating the need to redesign historical strategies bent heavily towards commercial viability over environmental impact. Managing the climate challenge is particularly important for a highly populated region such as Asia Pacific, which is also regarded as the most disaster-prone in the world. For all its negative consequences, the COVID-19 crisis has provided the world with a shared experience that has helped build a common purpose within the region's societies, creating an unprecedented opportunity for governments and businesses to build a more sustainable growth model for the future.[66]

However, shifting towards a net-zero future for a region as vast as Asia Pacific is no easy task, and will require concerted efforts from multiple stakeholders — governments, businesses and society — and sectors, such as energy, utilities, agriculture, industrial production, transportation. This will require the entire regional economy to change its current ways of working, from how it generates raw materials, to how it consumes resources, to how it manages emissions and waste. Rising urbanisation and consumerism continue to increase emissions and waste, intensifying the need to establish a stronger circular economy. Enabling new partnership models and adopting sustainability-driven strategies for business growth have now become critical to move towards a net-zero future. The agriculture sector also remains highly vulnerable, witnessing productivity concerns and resource scarcities that threaten food security. Technology offers a new way to address these issues.[67]

Gaomei, Taiwan

Thammasak Sethaudom

Vice President-Finance & Investment and Chief Financial Officer, Siam Cement Group Public Company (SCG)

We see a change in attitude among investors and business partners towards sustainability. As consumers become more conscious of the environment and aware of the impact of global climate change, companies are adopting more sustainable business practices and are investing in eco-friendly technologies and processes to improve their brand image and drive sales."

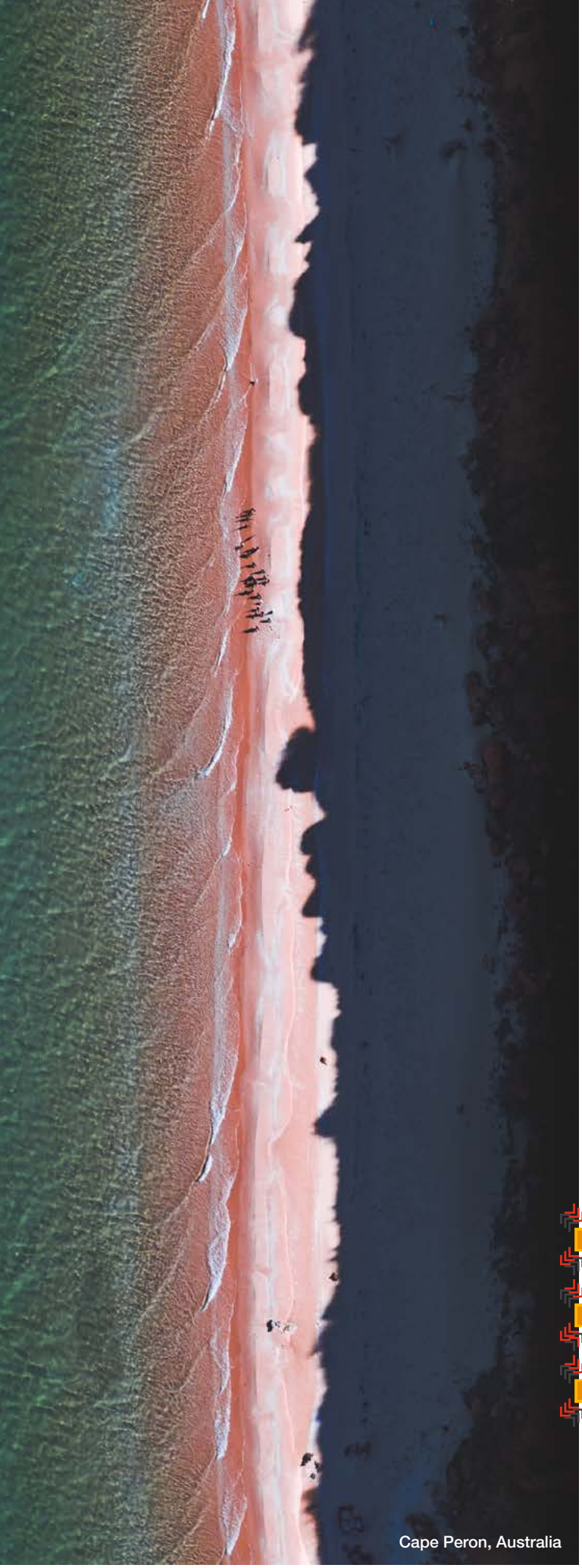
Sub-pillar 1

Building solutions for a net-zero circular economy

Addressing a deepening urbanisation challenge

Even with COVID-19 reshaping historical urbanisation trends in some markets, urban growth, driven by the need for employment within the region, will continue to be strong. With Asia Pacific already finding it challenging to manage its existing population burden, this projected growth is making rising emissions and waste, and growing resource shortages a major concern for the future, necessitating a concerted push towards a net-zero economy. Asia Pacific today accounts for the highest share in carbon dioxide emissions (53%) and municipal solid waste generated (40%) annually, with only 19% of globally generated waste undergoing materials recovery through recycling or composting, which highlights a major gap in the efficient use of natural resources. Considering the scale of change needed, it has become essential for businesses, governments and society to collaborate and move towards enabling a net-zero future for Asia Pacific.[68]

A growing shift in consumer attitudes and rising interest from the corporate sector have created opportunities to build support for tougher decisions that prevent lives and livelihoods from being lost to the growing environmental threats. Riding on changing societal preferences, governments must now aim for policy changes that can reduce emissions, improve resource utilization and trim waste management costs, while businesses need to diversify to new sustainability-led options that can help strengthen their long-term profitability.



Cape Peron, Australia

Adopting a partnership-led approach for impact

Shifting towards a net-zero future based on the principles of circularity — where materials are continuously regenerated and used effectively — has become central to meeting the urbanisation-driven challenges in Asia Pacific. However, looking at the scale of the issue, new collaborative models are needed to achieve notable impact. For the circular economy to work effectively, various stakeholders in urban centres need to play a different and more integral role, forming a holistic tri-entity partnership. Such a model creates benefits that cannot be achieved by individual entities, with community organisations taking a lead in spreading efforts for waste collection, the corporate sector focusing on manufacturing recycled goods and government implementing incentives for all to participate. Governments can also play a role in influencing consumer behaviour, not only through initiatives to educate but also through actions that change hardened habits. This may involve offering incentives to use sustainable alternatives, adopting unit-pricing models (pay-as-you-throw) to impose costs on less favourable behaviour, or introducing restrictions for the use of non-biodegradable materials.[69]

Case example

Unified multi-stakeholder initiative in Peru

Peruvian city authorities partner with social organisations to handle waste collection, which is undertaken by those working as waste-pickers in the informal economy. Bottling companies, manufacturers and waste exporters buy these materials to produce recycled goods. The government then works with the private sector to develop a domestic market for these products and shares promotion costs. This tri-entity partnership has helped improve the reach of waste collection efforts for the government, benefiting producers by reducing transport costs and a reliance on material imports, whilst also creating new income opportunities for vulnerable sections of the society.[70]

Case example

Waste management efforts in Asia Pacific

Japan has developed strong expertise in circular economy systems through government and community-led initiatives

Pioneering regulations such as the Japanese Home Appliance Recycling Law have been instrumental in driving a shift in consumer behaviour, and in incentivising companies develop new technologies to sort waste more effectively.

Further supported by non-profit organisations such as the Green Purchasing Network that publishes green purchasing guidelines and runs a platform with environmental information on more than 15,000 products and services, to help develop a market for sustainable products.

Additionally, other organisations such as the Zero Waste Academy have undertaken initiatives to strengthen community participation, such as in the town of Kamikatsu, where 80% of waste gets recycled today. To achieve this, multiple dialogue sessions were organised to explain the social and economic benefits of recycling to citizens – helping convert residential groups as early advocates. Waste collection centres were developed into hubs for social gatherings, with shops and crafts centres being set-up to push stronger engagement. To further improve participation, local businesses are regularly assessed for waste reduction efforts, and consumers are encouraged to purchase from these enterprises. Together, these efforts have enabled savings of around one-third of costs associated with the earlier practice of waste incineration.

Businesses in Asia Pacific are also playing a key role in strengthening the circular economy infrastructure in **India**

India-based industrial conglomerate, the O.P. Jindal, operates two waste-to-energy plants in the states of Delhi and Punjab, while eight other projects are under implementation in the states of Delhi, Punjab, Gujarat Andhra Pradesh and Rajasthan.

New tech-based ventures in India are also introducing innovative ways of solving the country's waste management problem, such as:

- Banyan Nation, a plastic recycling firm uses its proprietary technology to convert post-consumer and post-industrial plastic waste into recycled granules – comparable in performance to virgin plastic. To improve waste collection, it uses a mobile, cloud and IoT-enabled platform connecting informal waste-pickers and recycling aggregators to its supply chain. It also provides data assistance to city authorities to improve their understanding of waste flows.
- Another start-up, Kabadiwalla Connect serves as an online platform for waste management, connecting waste pickers in the informal sector with recycling facilities.

Source: World Economic Forum, Company websites, Press articles

Allard Nooy

Chief Executive Officer, InfraCo Asia

A collective effort is required to drive sustainability in Asia Pacific. Governments need to set clear targets and initiate policies that encourage and incentivise private sector participation in infrastructure development and investments. The corporate sector also needs to take a larger responsibility towards society and the environment, providing innovative solutions that are not only commercially viable but also sustainable."

Diversifying to sustainability-led business models

While governments may be looking to re-prioritise some of their planned sustainability investments into more immediate post-COVID-19 considerations, consumers now seem to be taking charge. Consumers in Asia Pacific are increasingly showing a preference for eco-friendly products, supporting ethical sourcing practices and solutions that can help mitigate environmental damage. These trends are not limited only to high-income economies; a growing section of markets such as China, India and Indonesia are also showing a willingness to pay for sustainable products, a trend driven by the Millennial and Generation Z demographics. This shifting consumer mindset has been accelerated by the COVID-19 pandemic.[71]

These trends indicate a major opportunity for businesses and signify an opportune time to recalibrate their growth plans. Aligned with changing consumer preferences, companies can diversify into new sustainable products and business models in the years ahead, helping them build stronger differentiation and loyalty for the highly competitive world of tomorrow. Many options are already being explored by first-movers, including new business practices (e.g. sustainable sourcing of raw materials, using emission by-products as inputs), new product lines (e.g. using biodegradable plastics, designs requiring less packaging, clothing from recycled textiles) and new market positioning strategies (e.g. shared economy businesses, product-as-a-service models).[72]

Case example

Sustainability-led growth model for a global consumer goods company

Global consumer goods companies such as Unilever have increasingly been incorporating sustainability-led practices in their operational models, undertaking initiatives focused on reducing their environmental impact and improving livelihoods of community members. By adopting more sustainability-focused strategies over the past 10 years, Unilever has been able to reduce its carbon dioxide emissions by 65 per cent, lower its waste footprint by 32 per cent, and sustainably source more than 60 per cent of agricultural raw materials while connecting 100 per cent of its facilities to renewable grid electricity.[73]

While denoting a notable investment, these steps have also helped drive new business and reduce costs. According to company results, sustainability-focused brands for Unilever grew 69 per cent faster than the rest of the business and delivered 75 per cent of the company's growth in 2018. Unilever has also been able to save more than US$1 billion in costs since 2008 by improving water and energy efficiency, using less material and producing less waste. The company considers its sustainability program to have further improved employee motivation and attract fresh talent. Driven by these results, Unilever has now set even bolder sustainability targets for 2025 with a significant focus on circular economy solutions.[74]

Yuuko Iizuka

General Manager - Sustainability Department, Sumitomo Forestry

As a company dealing with natural resources, sustainability has always been imperative for us to achieve long term growth. Moving towards becoming a more environmentally and socially conscious business, we strive to significantly reduce our greenhouse gas emissions and work collaboratively with our partners across the global supply chain to promote ethical sourcing."

Guilin, China

Sub-pillar 2

Adopting technology to address food and agriculture concerns

Vital concerns over productivity and food security

Food security is a major challenge for Asia Pacific, with almost half a billion people suffering from undernourishment, as of 2019. The region is projected to add another 295 million to its population by 2030, representing 55 per cent of the world's population but with only 25 per cent of the world's agricultural land, increasing the magnitude of the problem. Moreover, agricultural productivity remains low in many developing markets due to declining natural resources, inefficient farming techniques and more frequent weather disruptions.

Moving further along the value chain, food production is today responsible for almost 25 per cent of greenhouse emissions, while food safety concerns across supply networks have also been on the rise.[75] Figure 19 summarises various farm-to-fork issues confronting the region at present.

Figure 19 Farm-to-fork value chain challenges impacting Asia Pacific

Farming

- Low farm productivity in emerging markets, from:
  - (a) Declining input resources
  - (b) Inefficient farming practices
- Crop losses from plant diseases and pests
- More frequent weather disruptions
- Challenges to sustaining future farming income

Food processing

Rising food losses due to:
- (a) Inadequate or inefficient facilities
- (b) Removal of imperfect products

- Fast changing product demand patterns
- Stricter food labelling requirements
- Environmental impact of plastic packaging

Food distribution and retail

Rising food losses, due to:
- (a) Poor storage conditions (humidity, temperature)
- (b) Prolonged storage due to lack of transport
- (c) Improper handling of products
- (d) Overstocking at retail outlets

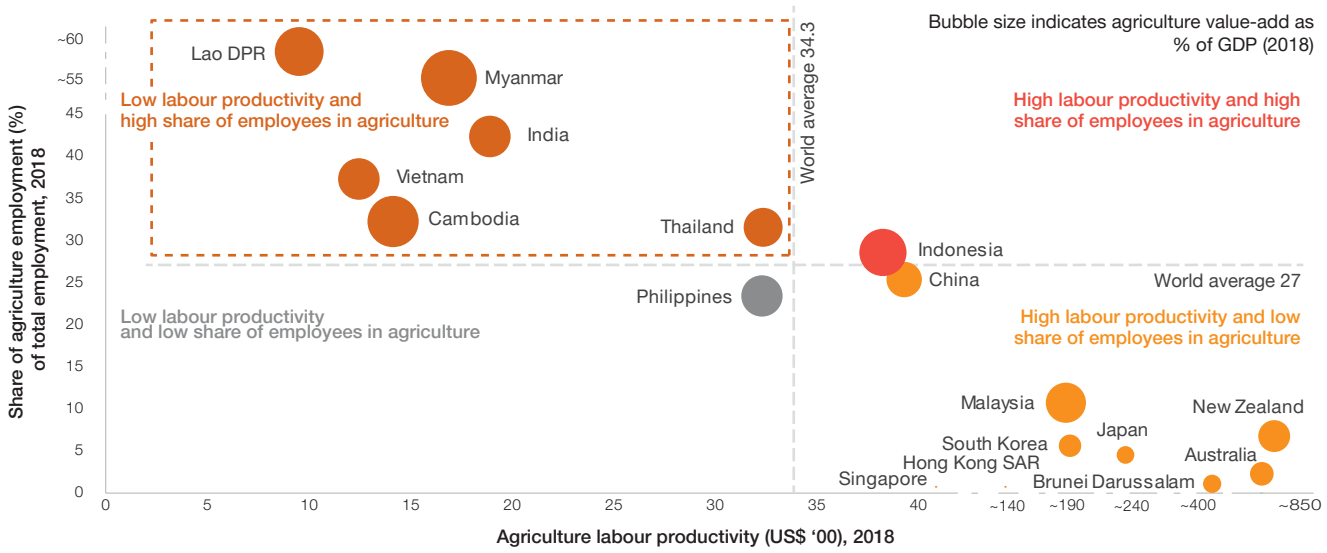
- Need for supply chain visibility to manage risks

End consumer

- High undernourishment in lower income segments / markets
- Rising obesity and diet-related diseases
- Food security and safety concerns, for a growing population
- Growing food waste from impulsive buying, large packaging sizes, bulk discounts

Source: PwC analysis

Figure 20 **Agriculture employment and labour productivity in Asia Pacific markets**



Source: World Bank, Food and Agriculture Organisation (FAO)

Note: Agriculture labour productivity is indicated by value added per unit of input per worker in the agriculture sector

Other than impacting food availability, managing these challenges is also critical from a socio-economic perspective, considering many regional markets depend on agriculture as their primary source of livelihood. Besides its high economic contribution to lower-income economies such as Myanmar and Cambodia (more than 20 per cent of GDP, by value-added), agriculture also accounts for more than a quarter of the labour force in markets such as Vietnam, Thailand and India (see figure 20). If left unchecked, low productivity and climate issues could negatively impact sector employment, increasing the potential for social unrest. Agricultural improvements are also imperative for inclusive growth, with a 1 per cent increase in agricultural GDP per worker expected to be twice as effective in reducing extreme poverty, as compared to a similar rise in industry or services.[76]

Strong potential for agritech investments

As a priority area, Asia Pacific requires a greater focus on technology infusion and knowledge capital to address the critical issues described above. Emerging agritech solutions can help improve resource utilization, enhance access to information, improve visibility across food supply chains and provide alternative food choices, leading to higher productivity, stronger food security and resilience to climate risks. Considering the enormous scale of Asia's needs, there is major scope for investments into agritech. According to PwC estimates, annual investments of US$80 billion are required over existing levels to meet Asia's requirements by 2030, providing a major opportunity for innovators, businesses and government stakeholders. A significant 51 per cent of this investment is needed in China, followed by India (27%), Southeast Asia (17%) and Japan and South Korea (5%). Almost two-thirds of the funds are needed for solutions promising food options that are safer and healthier, while the rest is required to increase production in line with growing demand.[77]

Steve Saunders

Chief Executive Officer, Robotics Plus

Technology solutions such as machine vision, machine learning, robotics and automation can help improve the yield and value of the produce through improved quality attributes, while reducing labour requirements for agribusinesses. However, these solutions require patient capital and need to be adopted at a larger scale to reap maximum benefits. Fostering relevant partnerships locally and internationally, and developing the right business models that incentivize all stakeholders for adoption will be essential for agritech to flourish."

As shown in figure 20, developed markets such as Australia and New Zealand stand out in terms of their highly productive agriculture sectors at present, highlighting the scope for them to lead regional efforts in building sector resilience. Many initiatives are already underway that other countries can learn from.

For example, the Australian Government has established multiple innovation centres to cater to agribusiness, such as the Monash Food Innovation (MFI) Centre. The MFI Centre provides access to research capabilities, consumer insights, packaging and product design expertise and implementation assistance, and also works with Australian agribusinesses looking to go overseas by helping them understand consumer needs, cultural practices and regulatory considerations.[78]

Similarly, the New Zealand Government has recently launched an industry transformation plan specifically for agritech. The plan highlights actions to develop global leadership through initiatives such as creating a robotics and automation institute for horticulture, and exploring new biological methods of improving soil nutrition. Steps are also being taken to collaborate sub-regionally with government agencies and industry bodies in Australia, to jointly build research and development skills and overseas presence.[79]

Case example

Digital pest monitoring solution developed in Australia

Besides government collaboration, there is also scope for business-led innovation to be taken outside national borders. RapidAIM, an Australian start-up is one such example; it focuses on reducing crop damage while making healthier food available for consumers. According to the United Nations, 20 to 40 per cent of global crop production is lost every year to pests, with invasive insects costing about US$70 billion to the global economy. Already, more than 4 million tonnes of pesticides are used every year, though 90 per cent of these pesticides do not reach the intended target, leading to growing environmental and health concerns.[80]

RapidAIM targets this issue and provides a digital pest monitoring system that informs farmers in real time of exactly where pests are invading, not only improving efficacy of pesticide use but also reducing its extent. Using low-powered IoT-based sensors to detect characteristic movements of insects such as fruit flies, the system collects real-time surveillance data and provides alerts and maps to farmers on a mobile application. Overall, the solution has been able to reduce the cost of pest management by 35 per cent over manual tracking methods. The damage caused by fruit flies alone costs more than US$200 million to Australian agriculture, which could be reduced through solutions such as these.[81]

Chiang Mai, Thailand

Justin Webb

Co-Founder & Executive Chairman, AgriWebb

Certain considerations need to be kept in mind while adopting agritech solutions. Most importantly, the success metrics for solutions need to be clearly identified – understanding which stakeholders in the value chain will benefit from adoption, and whether their incentives are aligned accordingly. Affordability for end users will also be highly important for large scale adoption."

Enabling affordability to improve adoption

Many new agritech solutions are increasingly being developed, tested and piloted across Asia Pacific, ranging from innovations in farm inputs (climate resistant seeds, new aquaculture feeds), farm and supply chain management systems (indoor vertical farms, blockchain or IoT enabled monitoring), information and transaction platforms (mobile-based services, digital marketplaces) and alternative food proteins (plant and cellular based). However, large-scale deployment also requires focus on areas beyond technological effectiveness.

A lack of financing remains a critical issue for farmers looking to adopt new technologies. Affordability is also a major concern for Asia Pacific, with about 95 per cent of farms in the region being small in size (less than five hectares). Many of the small holder farmers have limited incomes and face difficulties in accessing credit, leaving them vulnerable to depleting resources and weather conditions. These affordability challenges need to be addressed for technological adoption to create a major impact, necessitating greater cross-sector collaboration to build financial solutions for cultivators. A new domain of "agri-fintech" is quickly emerging, marrying technology with financial support for the farming sector.[82]

Moving forward

Asia Pacific faces an urgent need to consciously move towards a net-zero economy future. Rising risk-consciousness induced by the pandemic has re-ignited the need for change, and it is now time to act. New partnerships are needed to build a circular economy in Asia Pacific, fostering deeper collaboration between governments, businesses and the society. However, the pace of change also depends on the ability of governments and businesses to manage sustainability investments with the pandemic, making it even more important to join forces. Lasting impact also requires these alliances to design the right incentives and monitoring mechanisms to evolve as per changing needs. Besides this, businesses need to diversify to more sustainable business models, while developing new technology solutions to tackle food security. Sharing waste management and agritech expertise across the region has also become crucial to change, but requires adjustments in accordance with local practices, digital readiness levels and social conditions in different markets to deliver results.

Case example

Southeast Asian markets adopt new agri-fintech solutions

CROWDE, an Indonesian mobile based crowd-funding platform connects investors with farmers looking for working capital. The platform allows users to invest in farms across Indonesia while farmers are also able to select the plan (interest rate, repayment cycle) that works best for them. In addition, the company provides farmers with training in farming, finance and marketing to transform them into "agropreneurs". It has been working with the government to expand its reach to new villages. As of 2019, CROWDE had more than 60,000 lenders on its platform, disbursing loans of around US$8 million to more than 18,000 farmers in the country.[83]

Another solution, Tun Yat, is a Myanmar-based agritech platform that allows farmers to rent agricultural equipment from machinery suppliers, thereby providing cheaper access to modern technology to those who cannot afford to own expensive equipment. Using the platform, farmers get on-demand access to machinery, while suppliers earn additional income from spare inventory. The company has also deployed IoT solutions to provide machine owners with status updates on their rented machines. As of December 2019, Tun Yat had served around 1,400 farmers in Myanmar, with 80 per cent of these being small holders.[84]

Bagan, Myanmar

Key takeaways

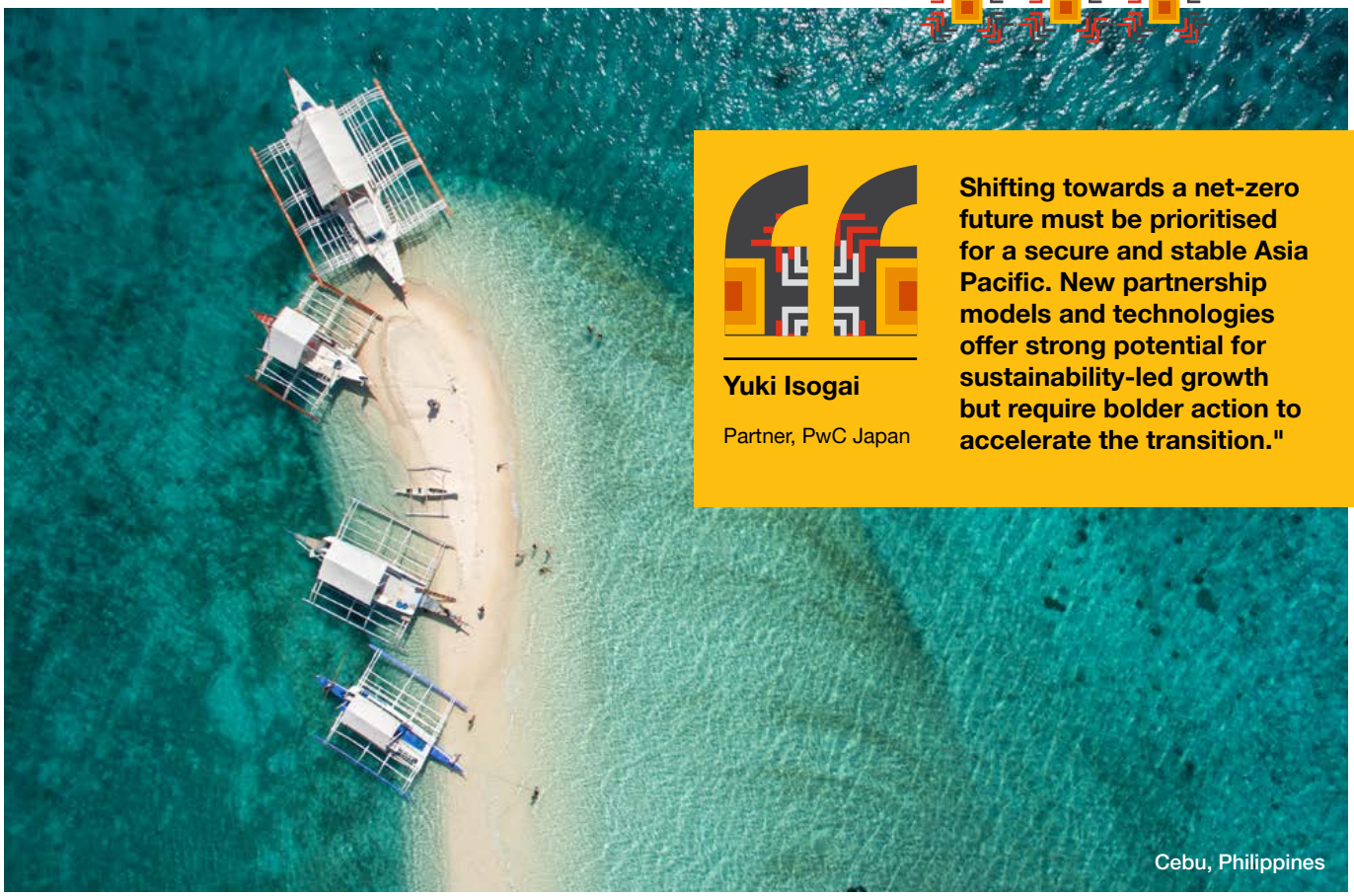
What actions are needed?

Tri-entity partnerships need to be deployed to manage rising emissions and waste, fostering greater collaboration between stakeholders (governments, businesses, society) to move towards a net-zero future.

Businesses need to redesign growth strategies in accordance with changing market preferences, diversifying into new sustainable products and business models that can also help differentiate and strengthen consumer loyalty.

Businesses need to lead the development of agritech solutions to address farm-to-fork challenges, collaborating with the financial services sector to create support solutions that improve user affordability.

Regional governments need to create incentives for businesses and investors to participate in agritech, with certain developed markets becoming centres of expertise that share best practices with the region.



Yuki Isogai

Partner, PwC Japan

Shifting towards a net-zero future must be prioritised for a secure and stable Asia Pacific. New partnership models and technologies offer strong potential for sustainability-led growth but require bolder action to accelerate the transition."

Cebu, Philippines

Chapter three

New ways of building a collective future

Bangkok, Thailand

Chapter three

New ways of building a collective future

While the previous chapter focused on describing what should be done to build a robust future for Asia Pacific, this concluding chapter is a call-to-arms for regional stakeholders that highlights how the growth pillars can be put into action to have a lasting impact. Existing challenges and COVID-19-related disruptions (highlighted in chapter one) have reduced trust in the system to safeguard livelihoods and deliver far-reaching improvements. Reconfiguring the economy and rebuilding people's lives now requires stakeholders to implement new growth pillars (described in chapter two), but not without restoring trust as a pre-requisite to implementation.

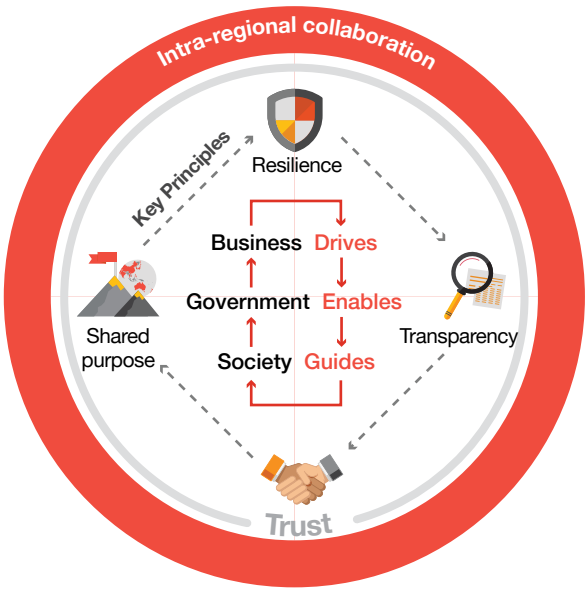
Reinstating trust needs new principles to be adopted by government institutions, businesses and society. With their actions being governed by these new principles, key stakeholders (government, businesses and society) also need renewed roles to enable resilient and robust growth. Finally, there is an immense need for stakeholder collaboration to extend beyond individual nations. Collective action at a regional level has become vital to deal with the health and economic crisis induced by COVID-19, and to strengthen prospects for balanced economic and human development in the future. The following sections highlight these aspects in greater detail.

Figure 21 Elements of building a collective future for Asia Pacific

01 Which new principles will govern Asia Pacific's future growth – imperative to building trust among regional stakeholders?

02 How will the role of the government, businesses and society change to enable robust growth in the future?

03 What are the new ways for regional stakeholders and individual markets to collaborate to counter disruptions?



Source: PwC analysis

Principles for the future success of Asia Pacific

Building trust to successfully execute the growth pillars requires new principles to be adopted, especially amid the changing economic and social landscape in Asia Pacific. The four principles below are imperative for future success, shaping how stakeholders work together to develop new opportunities and achieve tangible improvements in people's wellbeing.[85]

1 Shared purpose

This principle focuses on balancing the interests of all stakeholders to achieve shared goals for the future. It involves setting future growth priorities in a way that incorporates the objectives of the government, businesses and society, strengthening national competitiveness and business performance while delivering financial and social security for people, thereby establishing trust that all concerns are being addressed. Such a shared vision requires focus to shift beyond short-term objectives to solving critical challenges that threaten the longer-term wellbeing of Asia Pacific. It requires looking not only at an immediate post-COVID-19 recovery but also on converting the crisis into an opportunity to establish a more equitable system by reducing economic disparities and social inequalities.

2 Resilience

Global uncertainties have heightened the call for governments, businesses and society to develop greater safeguards against possible disruptions in the future. In view of this, regional stakeholders need to focus on making economic growth more resilient by building capacity to withstand future shocks, and the ability to adjust for and recover from sudden fluctuations. Shifting to regionally integrated supply networks and building digital value chains are possible ways of improving resilience, requiring companies and governments to work on strengthening digital trust, enabling a greater degree of confidence that flows for essential products will not get disrupted in the future. Initiatives such as these need to be prioritised as regional stakeholders work on reconfiguring the system while recovering from the pandemic.

3 Transparency

Efficient information sharing has become a must to developing more robust growth in Asia Pacific in the coming years, with transparency being a cornerstone to securing a stronger bond of trust between parties. Governments need to be more transparent about their policy choices in a post-COVID-19 world, while business leadership needs to uphold the principles of ethics and integrity and be more transparent about their impact on society and the environment. Society will be more accepting of new technologies or business models if it has greater trust —driven by transparency — in regulators and businesses. Future stakeholder collaboration requires that information be easily accessible to all to facilitate cohesive efforts and deliver lasting impact.

4 Co-ownership

Finally, growth initiatives need to be co-owned by participants, with each party contributing its strengths to collectively achieve results that are individually not possible without inefficiently using time or resources. Fixing accountability while keeping some flexibility to redesign tasks and reposition responsibilities is also important. For this, partnership arrangements between stakeholders need to clearly outline roles, decision-making responsibilities, expected behaviours and rights of each participant, while including mechanisms to help adjust and improve upon existing approaches. Establishing such detailed cooperation frameworks is also essential considering cultural and organisational differences that could exist in how governments, businesses and community organisations operate individually.

Pamela Qiu

Head, Business Development and Engagement, Alliance to End Plastic Waste

Many company CEOs are now realising the importance of purpose driven profits. They are embracing stakeholder capitalism over shareholder capitalism. They believe that taking care of every stakeholder in their ecosystem including their employees, customers, suppliers and the society at large is the best way to ensure long term profitability."

Reimagining the roles of key stakeholders

Besides looking at the core principles governing Asia Pacific's growth, it is also critical to understand how various stakeholders (government, businesses and society) need to evolve to enable a strong recovery from the COVID-19 crisis and achieve stable growth in the years ahead. Agility has become a necessity in order to function effectively in a disruption-prone world – focusing not only on agile decision-making but on agile execution as well. Looking at the region's rapidly changing political, economic and social realities, it has therefore become necessary for all stakeholders to perform certain new roles in equipping Asia Pacific for its journey ahead. The five growth pillars mentioned in chapter two can realise their true potential only when all stakeholders perform these complementary roles, with government acting as the enabler, the business sector being the driver and society playing a guiding role in building a robust future for the region.[86]

Government — enabling role

Governments in Asia Pacific needs to evolve from being reactive to emerging challenges to being proactive in developing a resilient system. Balancing economic growth with social progress and environmental protection has become imperative to addressing ongoing and emerging disruptions. For this to happen, governments need to play an enabling role in building the future growth pillars for Asia Pacific. This proactive-enabler role for government involves working with other stakeholders to set the right policies and initiatives in place, focusing on areas that boost national or regional competitiveness and strengthen the local business environment while safeguarding the welfare interests of the citizens. Building an environment that allows agile and organic innovation to thrive and new skills to be developed is also key to the region's future, as highlighted by the enterprise growth and labour force growth pillars, and government initiatives that foster these objectives have become critical for impact.

Going forward, governments need to think beyond immediate returns and continue investing in platforms that foster long-term growth such as digital infrastructure or skill development. Government departments have historically been restrained with bureaucratic procedures and longer decision making cycles, which needs to be replaced with more agile execution to generate future growth – allowing businesses to better manage volatilities and the society to remain safe and secure from emerging disruptions. Finally, improving transparency in policy-making, such as tax changes in response to COVID-19, has become a prerequisite to boosting future investments and trade. Where there are competing points of view, the government needs to foster dialogue among stakeholders to clarify the trade-offs behind policies, considering not only present needs but also the longer-term public good.

David Downs

General Manager - Projects,
New Zealand Trade and Enterprise (NZTE)

Governments need to enable businesses to achieve sector growth. This has worked well for innovation led sectors such as agritech, wherein the government, industry players and research institutes are working collaboratively as part of a triple helix model to diagnose key issues, develop growth strategies and undertake implementation initiatives - while being supported by appropriate policies and regulations."

Taipei, Taiwan

Case example

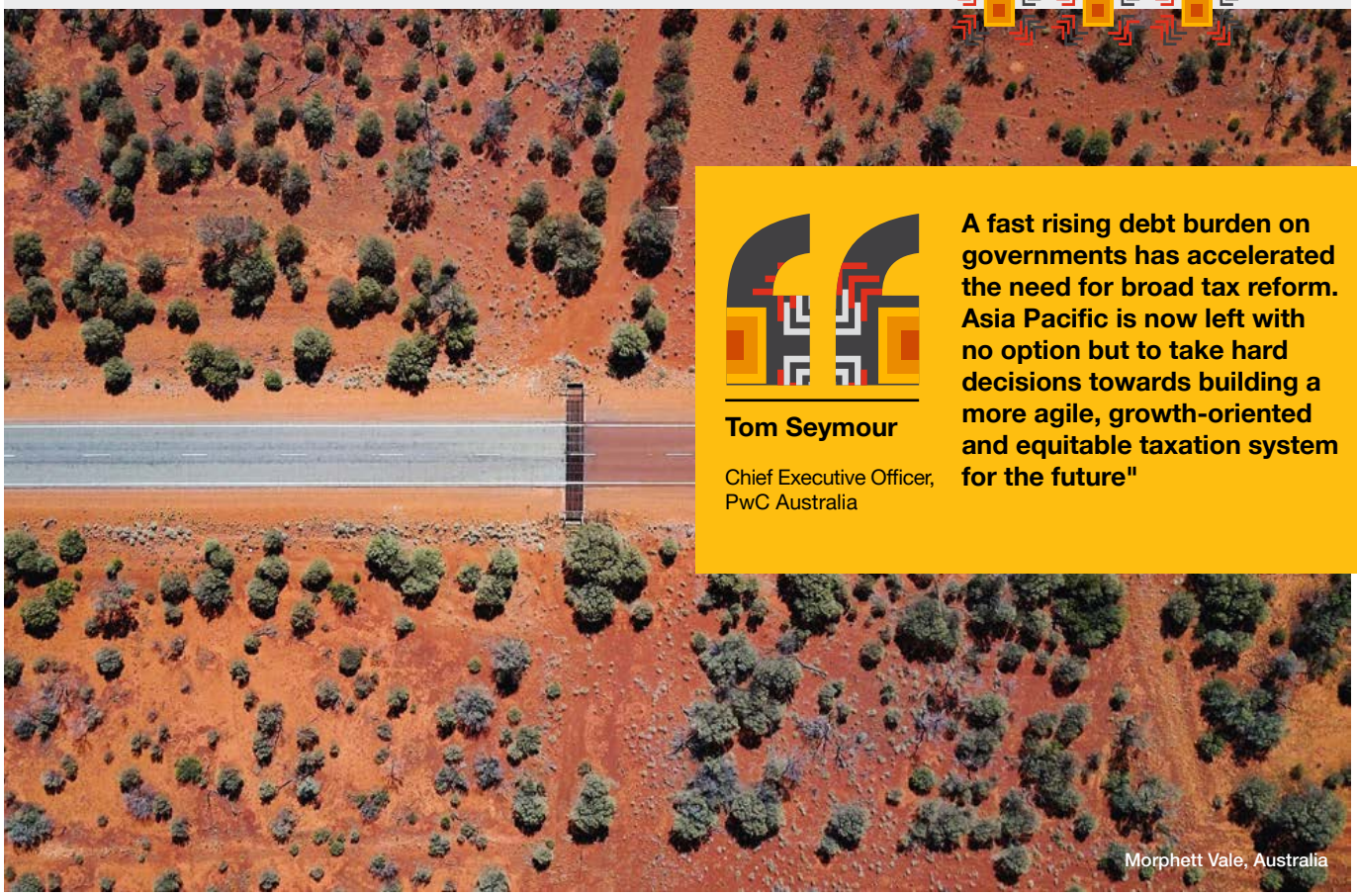
Reinventing taxation in Asia Pacific

The COVID-19 pandemic has not only disrupted business operations and individual lives but has also impacted fiscal health across many nations – creating the need to spend more on repairing and rebuilding the economy while facing a drop in traditional sources of tax revenues, as business and personal incomes witness a fall. Changing consumption and saving behaviours induced by the pandemic will also have longer term implications on how governments raise funds and prioritise areas for spending in the years ahead. These factors have collectively created the need to reinvent existing tax structures in Asia Pacific, and develop a system that supports the "five growth pillars" of the future.

A future-oriented tax system for Asia Pacific can be designed based on a few key interventions. Firstly, there is a growing need to tackle inefficiencies and digitalise the tax function to improve transparency and prevent leakages – more so across various developing economies in Asia Pacific that could benefit from stronger tax compliance and collections. For example, electronic invoicing platforms can provide governments with the ability to monitor and manage transactions in real-time and help mitigate black economies. Digitalised tax systems can also be a trigger for regional governments to establish more resilient cyber security infrastructure in their countries – which could have implications beyond government services and help strengthen the overall digital economy as well.

Besides this, governments also need to diversify their sources of tax revenues while shifting incentives to new strategic sectors that support their future growth visions. Going forward, governments will increasingly need to consider more consumption-driven tax policies and lower the burden on income taxes to help businesses and communities recover from the crisis. A spending-based tax system will also be a growing requirement in economies where the proportion of income-earners continues to shrink due to changing demographics or employment patterns. With fast rising digitalisation in Asia Pacific, new sources such as digital taxes can also be considered – though governments must ensure these policies continue to support sector growth and do not restrain investments. Data is fast becoming a highly-valued commodity in Asia Pacific and this could be a new focus area for tax offices in the region.

Finally, governments in Asia Pacific will need to focus on balancing inequities in the system and design their taxation policies to create a greater sense of fairness amongst stakeholders. Supporting the regional collaboration agenda, there is also significant scope for governments in Asia Pacific to work together to create tax policies that incentivise cross-border trade, focusing not only on traditional merchandise exports but also on upcoming segments such as digitalised services to boost growth.

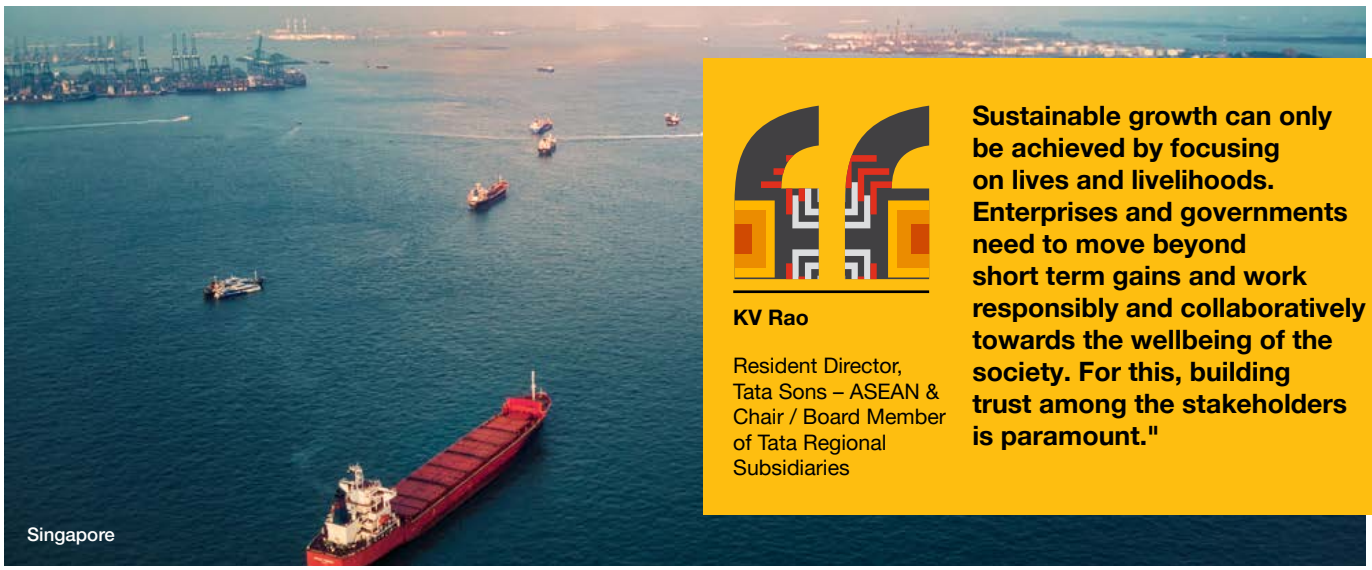


Tom Seymour

Chief Executive Officer, PwC Australia

A fast rising debt burden on governments has accelerated the need for broad tax reform. Asia Pacific is now left with no option but to take hard decisions towards building a more agile, growth-oriented and equitable taxation system for the future"

Morphett Vale, Australia



KV Rao

Resident Director, Tata Sons – ASEAN & Chair / Board Member of Tata Regional Subsidiaries

Sustainable growth can only be achieved by focusing on lives and livelihoods. Enterprises and governments need to move beyond short term gains and work responsibly and collaboratively towards the wellbeing of the society. For this, building trust among the stakeholders is paramount."

Businesses — driving role

The business sector must drive the establishment of Asia Pacific's future growth pillars. This involves offering new solutions that can help overcome existing and emerging challenges in the region, and using its ability to develop new business models, target untapped consumer segments and diffuse innovation and best practices across the region. To do so, businesses need to evolve from being focused on profitability and operational metrics alone, to becoming more risk-conscious in the future, adjusting their current ways of working to become resilient to possible disruptions. This role of being a risk-conscious driver is of utmost importance in delivering prosperity to Asia Pacific's citizens, but also requires various actions to be implemented within companies to make organisations more resilient and agile. This includes adopting stronger risk management frameworks, establishing well-defined data governance practices and implementing more robust cybersecurity measures to improve resilience (as highlighted by the digital economy and supply chain and innovation growth pillars). At the same time, strengthening corporate agility requires both an agile mindset from the leadership for faster strategic decision making, and establishing more agile organisational models (internal processes and external collaboration) for faster execution and continuous learning and improvement.

Finally, converging profit and purpose is now imperative to ensuring sustainable development. Acting with integrity and showcasing greater responsibility towards social and environmental needs has become essential to remain the preferred brand for consumers, favoured partners for businesses and employers of choice for key talent (as highlighted by the net-zero economy growth pillar). Regulators are also more likely to ease restrictive barriers if they are assured of companies acting with integrity and are being transparent about their performance. To improve inclusivity, big companies with greater financial capacity need to look beyond short-term gains and invest in solutions that target market segments with lower spending capacity. These large businesses increasingly find themselves in the central nexus of change in a post-COVID-19 world, requiring them to take a lead in upskilling supply chain partners, collaborating with the government to develop a future-ready workforce and working with start-ups to develop new solutions with greater agility for a fast evolving region.

Society — guiding role

Government and business strategies can only be impactful and sustainable if they build on an opportunity to meet a human or societal need, and therefore rethinking systems or operating models must start from the people. Social and environmental implications of policy changes and business decisions need to become as important as understanding their commercial viability – with strengthening human capital and improving the people's wellbeing becoming foundational elements for future-oriented change. For this, society needs to be at the core of all implementation plans – requiring regular pulse checks, often utilising social media channels, to identify areas of support and friction within target communities, and making adjustments on an ongoing basis to maximise potential for success. For instance, initiatives to develop a circular economy need to consider ways of transforming existing consumer habits and engage with community organisations to enable visible impact (as highlighted by the net-zero economy growth pillar).

Finally, society, including citizens and community organisations, needs to evolve from being passive consumers to becoming "active collaborators" by playing a guiding role in providing direction to government policies and corporate initiatives. To enable far-reaching impacts and to close divides, society must push for change by being actively vocal about its needs and priorities. The essence of society lies in its people, who are also the source of rising consumer demand and the labour market, and it is these people who need to become the starting point to addressing existing and emerging challenges. Securing a strong buy-in from all stakeholders is a must for lasting change, in particular from society, acting not only as beneficiaries but as owners who co-develop aspects of planning and governance and co-manage execution.

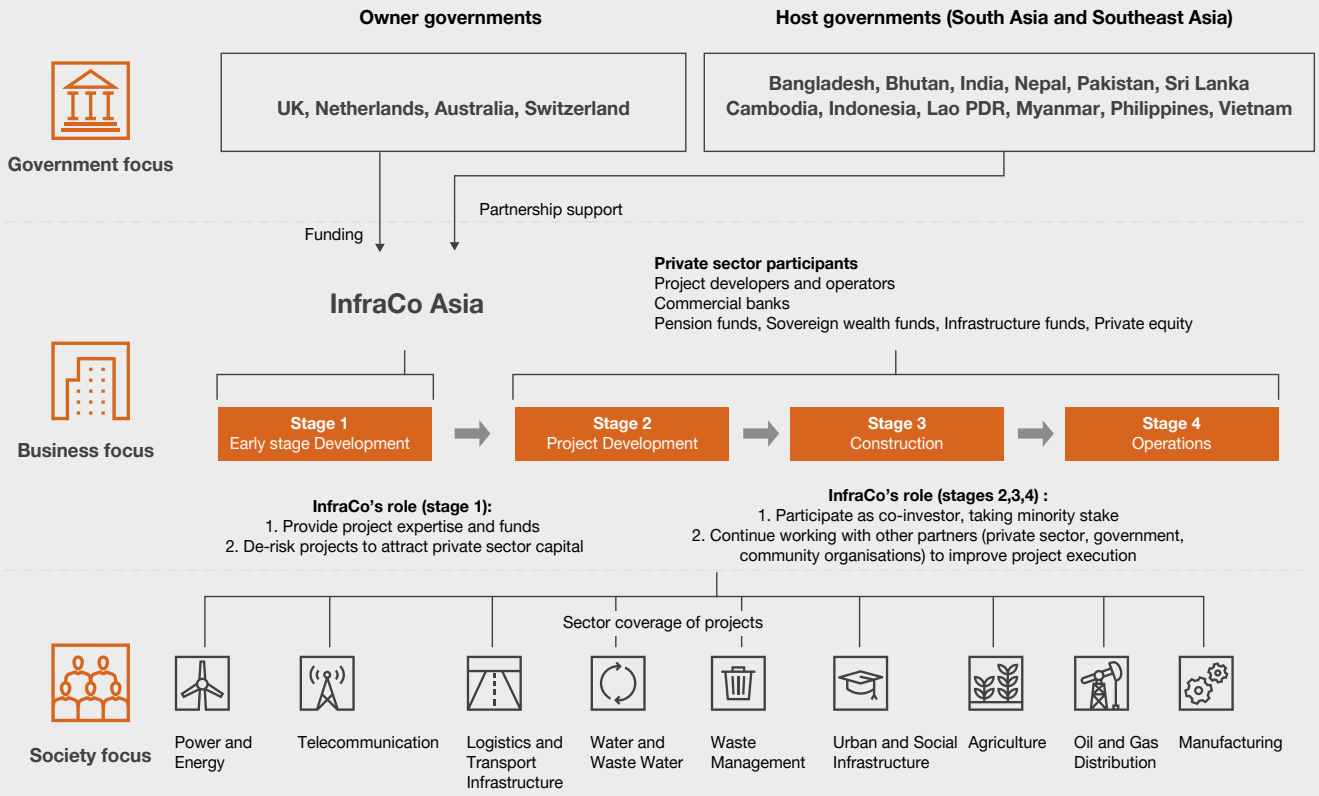
Case example

Sustainable infrastructure development through cross-stakeholder collaboration

An example of multiple stakeholders working in alignment to drive sustainable growth can be seen through the operations model of InfraCo Asia. Funded by the governments of the UK, the Netherlands, Switzerland and Australia, InfraCo Asia provides development capital and leadership expertise for early-stage infrastructure projects in South and Southeast Asia – focusing on sectors impacting societal wellbeing such as power and energy, telecommunication, logistics and transport infrastructure, water and waste water, waste management, agriculture and urban and social infrastructure.

These projects are aligned with Sustainable Development Goals (SDGs) and the development interests of the host governments, the needs of the local communities and incentives for domestic and international private sector investors – enabling different stakeholders to play an active role in sustainable infrastructure development.

By funding higher-risk projects in their early stages, InfraCo Asia helps catalyse private sector investment in the later stages of infrastructure development. Projects undertaken focus on providing the disadvantaged sections of the society with better access to key infrastructure – helping reduce poverty and create new and/or better jobs. In addition, InfraCo Asia assists local agencies with capacity building and the development of local capital markets, while working with governments to facilitate a suitable regulatory environment – such as by improving adherence to environmental best practices or by advocating for policies that improve visibility into future revenue flows, with the aim of facilitating corporate participation.



Source: InfraCo Asia, Company website and documents, 2020

A key project example is the development of the 168 megawatt-peak (MWp) solar power facility in Ninh Thuan province in Vietnam. The project was jointly developed by InfraCo Asia and Sunseap International, a Singapore-based clean energy provider – with InfraCo Asia funding the initial development phase, to de-risk the deal. The project aligns with the Vietnamese government's target of making solar a major renewable energy source for the future, and has therefore encouraged active participation from the government in the form of clearer guidelines on execution, approval processes and tariff structures. In terms of its impact on society, the project is expected to extend electricity access to around 200,000 people in the country while creating jobs for more than 2,000 local workers.[87]

Greater need for regional cooperation

Global uncertainties necessitate cross-stakeholder collaboration across Asia Pacific to extend beyond national boundaries, which requires different markets to work together. This is no longer an opportunity but a must for stability and prosperity. Changing market trends and emerging disruptions have significantly reduced the relevance of historical models, and regionalisation has strong potential to become a new growth lever in the years ahead by offering a balanced path between reduced growth opportunities in a locally centred approach, and higher risks marked with a globally widespread presence.

According to the Asian Economic Integration Report 2019-2020, there is significant need for regional cooperation in various sectors and sub-regions. Looking at sectors, while primary and low-tech industries have registered higher regional value chain-global value chain (RVC-GVC) intensity scores (indicating greater focus on regional networks over global value chains), high tech industries and services categories continue to see much lower figures, indicating significant scope for strengthening regional links in these areas. Outside trade, areas such as infrastructure and connectivity, and institutional and social integration also show strong need for a regional focus. Looking at sub-regions, locations such as Central Asia and South Asia remain much less integrated with the larger Asia Pacific region, requiring more targeted integration efforts in these markets in the future.[88]

Establishing an effective regionalised growth model requires different country groups to lead in particular aspects. More mature economies, such as Singapore, China, Australia, New Zealand, Japan and South Korea, can lead initiatives on enhancing research and development efforts, developing future-ready talent, addressing infrastructure gaps and fostering institutional development for the rest of the region.

Agritech expertise in Australia and New Zealand is one key example. Expanding the reach of centres of expertise such as the Australian Centre for International Agricultural Research (ACIAR) and Monash Food Innovation (MFI), to new regional markets is going to be important in this regard. Similarly, Japan is well positioned to share its expertise in waste management, while China and Singapore can assist regional markets in the area of infrastructure development. Japan's environment ministry is already providing financial support to develop a public-private consortium to bid for waste management contracts in Southeast Asia. Participation in certain large-scale government programmes such as China's Belt and Road initiative can also be an important channel to improve cooperation on the infrastructure front. Finally, expanding the scale of government agencies such as Infrastructure Asia in Singapore could also be helpful. The agency currently focuses on connecting individual Southeast Asian governments with domain experts for different infrastructure projects, while offering advisory services in project development, financing and implementation, efforts that can be scaled to a larger Asia Pacific level.[89]

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Regional stakeholders need to work collaboratively to handle complex challenges facing Asia Pacific. Collective action by governments, business and society is a must to enable a prosperous and inclusive future."

Developing markets in Asia Pacific will not be mere recipients of assistance but can also play a pivotal role in shaping the region's future by serving as providers of an aspirational workforce, drivers of economic activity and testing grounds for consumer-focused innovation. Many developing markets in South Asia and Southeast Asia will continue to witness growth in their working age population in the years ahead, and these markets can help build the people foundation for the region, providing not only access to their growing labour force to bolster Asia's production competitiveness, but also offering growing consumer markets for regional businesses to prosper. Developing markets also need to play a more regional role, rather than remain domestically focused. Specific areas of strength within these markets can enable the wider region to achieve more inclusive growth.

For example, some economies are becoming centres for entrepreneurship and lower-cost innovation, the benefits of which can be spread across the region. Affordable healthcare service models and lower-cost biopharma and med-tech solutions from India or Thailand could help manage concerns around rising healthcare costs in other Asian markets.[90]

While there is a strong opportunity to push regional collaboration in Asia Pacific, on-ground implementation of growth initiatives also requires collaboration at a more tactical level across stakeholders. Governments need to work together to share best practices in financial risk management and learnings from sector-specific policies, while pushing for initiatives to enhance cross-border connectivity and trade. The business sector across different regional markets needs to enter into new risk-sharing partnerships to share development costs and capabilities, enabling companies to expand geographic reach while maintaining affordability and competitiveness. On similar lines, social sector organisations in different markets need to work together on new community-building initiatives, covering areas such as empowering of vulnerable populations and strengthening social safety nets in a post-COVID-19 world.[91]

Certain initiatives can be prioritised to drive change. Considering the social disruption and personal impact caused by the pandemic, enabling cooperation in people-focused sectors such as education and healthcare can be a good starting point to help secure buy-in from multiple regional authorities. Important among these are steps to facilitate cross-border mobility of students and medical tourists, standardising educational qualifications in upcoming technology-driven areas, and establishing regional incubators or agencies to support fast growing companies that could be scaled up to become strong regional or global brands in the years ahead. Areas such as these could help achieve tangible change with lesser resource commitments, thus incentivising cooperation on other fronts as well.[92]

Moving forward, now

Asia Pacific urgently needs to act to reconfigure old ways of working and chart a new sustainable and resilient path for future growth. The shared experience of facing and managing the COVID-19 pandemic has shown that with common focus and resolve, increased transparency and effective usage of technology, Asia Pacific can achieve large-scale, meaningful change in a relatively short period of time. As the region emerges from this crisis, governments, businesses and society need to collaborate to re-establish trust across society and form agile ecosystems where the roles of drivers and enablers evolve as the situation requires. More concerted intra-regional collaboration across Asia Pacific is critical to ensuring the strength of this mighty region benefits all within it. **It's Asia Pacific's Time.**

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