MALAYSIA PRODUCTIVITY BLUEPRINT

Driving Productivity of the Nation

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MALAYSIA PRODUCTIVITY BLUEPRINT

Driving Productivity of the Nation

> Economic growth during the Eleventh Malaysia Plan, 2016-2020, must be driven by more sustainable sources of growth, particularly improvements in productivity. Targetted initiatives will be introduced at the national, sector and enterprise levels to ensure tangible and measurable improvements in productivity. Specific productivity targets will be set and the outcomes will be closely monitored.
>
> Eleventh Malaysia Plan, 2016-2020

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Acknowledgements

The Malaysia Productivity Blueprint represents a bold step in raising labour productivity to achieve the targets set in the Eleventh Malaysia Plan, 2016-2020, laying the groundwork for an era of unprecedented productivity growth in the country.

Dato' Sri Mohd Najib bin Tun Haji Abdul Razak

Prime Minister of Malaysia

FOREWORD

Dato' Sri Mohd Najib bin Tun Haji Abdul Razak
Prime Minister of Malaysia

For Malaysia to achieve its 2020 goal of becoming an advanced economy and inclusive nation, it is vital that we break from our conventional, 'business as usual' practices, and instead, set the country on an accelerated growth trajectory. The goals outlined in the Eleventh Malaysia Plan, 2016-2020 (11MP), reflect the core of our nation's aspirations towards this end. Productivity plays a vital part in the implementation of this Plan, which calls for renewed efforts to boost productivity in a focused and targetted manner, with clear outcomes at the national, sector and enterprise levels.

Our ability to achieve a developed nation status is highly dependent on our ability to raise labour productivity levels to reach the 11MP target of RM92,300 per worker by 2020. The Malaysia Productivity Blueprint represents a bold step in raising labour productivity to achieve the 11MP targets, laying the groundwork for an era of unprecedented productivity growth in the country. The Blueprint provides a framework that will address productivity issues and challenges in a comprehensive and cohesive manner. It sets out the strategies and implementation plans to ensure we achieve our productivity targets.

I would like to thank and congratulate all who have worked together in developing this Blueprint. Its goals are ambitious and will not be easy to achieve, but will be possible with the support of many different stakeholders, that span across sectors. God willing, I am confident that we will have the courage and tenacity to make the goals of this Blueprint a reality, and together, take great strides towards the Malaysia we envision for the future.

The private sector will drive this productivity agenda in partnership with the government.

Datuk Seri Abdul Rahman Dahlan
Minister in the Prime Minister's Department

FOREWORD

Datuk Seri Abdul Rahman Dahlan
Minister in the Prime Minister's Department

The Economic Planning Unit, Prime Minister's Department has formulated the Malaysia Productivity Blueprint to boost Malaysia's economic growth and raise the prosperity of the *rakyat* in a sustainable manner. The Blueprint, a culmination of an intensive process of engagement with various government agencies and industry players, is critical as we position the nation for global competitiveness.

The Blueprint highlights the need for productivity to be addressed holistically at all levels to ensure a systemic change across the economy, which is a departure from previous fragmented efforts to raise productivity.

A strong coordination and governance mechanism has been established to ensure effective and transparent implementation of the Blueprint. The private sector will drive this productivity agenda in partnership with the government. By committing ourselves and working single-mindedly to implement the proposed initiatives, I am confident that we will be able to achieve the productivity targets set out in the Blueprint.

UNLOCKING THE POTENTIAL OF PRODUCTIVITY TO PROPEL ECONOMIC GROWTH

Productivity is a game changer in the Eleventh Malaysia Plan, 2016-2020 to propel Malaysia to become an advanced economy and inclusive nation

EXECUTIVE SUMMARY

Malaysia has been making clear strides towards transforming into an advanced economy and inclusive nation, with a strong economic growth record. As Malaysia approaches its vision to become an advanced economy and inclusive nation by 2020, productivity improvement is critical for sustaining this positive trajectory.

Delivering successfully on the Blueprint will pave the way to achieving the ambitious labour productivity growth target of 3.7% per annum during the 11MP period.

Malaysia has enjoyed a steady gross domestic product (GDP) growth for the past 25 years and more. Its inclusive growth model has helped Malaysia dramatically reduce the incidence of poverty. The economy that was once highly dependent on primary products such as tin and rubber has diversified to become an exporter of electrical and electronic products, palm oil and natural gas.

Malaysia's growth has been predominantly input driven through the injection of capital and labour into the economy. This input-driven growth, is becoming more costly to sustain with every unit of input injected into the economy yielding less GDP growth compared to the past. Hence, it is critical that Malaysia moves from input-driven to productivity-driven growth to achieve a sustainable economic growth.

There are several challenges to productivity growth. These challenges are grouped into five categories:

Talent

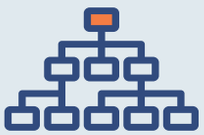
More cohesive efforts needed to meet the demand of the future economy, by building a strong pipeline of skilled workers and gradually reducing reliance on low-skilled workers

Technology

Investments in technology and digitalisation, and industry adoption, need to be accelerated and supported. Stronger collaboration between industry and academia is essential for greater innovation and industry-relevant R&D

Incentive Structure

Incentives and other financial support need to be directly linked to productivity to incentivise enterprises to improve efficiency and performance



Business Environment

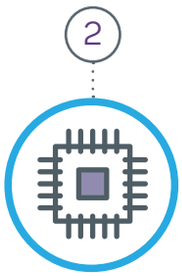
Regulatory hurdles need to be reduced, and regulations interpreted and applied with greater consistency, to improve ease and reduce cost of doing business for enterprises

Productivity Mindset

Higher level of awareness and understanding of the importance and benefits of productivity needed at enterprise level, along with guidance on how to measure and track productivity

The Malaysia Productivity Blueprint defines five key strategic thrusts that form the basis of its recommendations to raise productivity and address the common challenges.

Thrust one to four are described in further detail in Chapter 3 of this Blueprint, while thrust five is covered in Chapter 6.



1	2	3	4	5
Building Workforce of the Future	**Driving Digitalisation and Innovation**	**Making Industry Accountable for Productivity**	**Forging a Robust Ecosystem**	**Securing a Strong Implementation Mechanism**
Restructuring workforce by raising the number of high-skilled workers, tightening entry of low-skilled workers, and meeting demands of the future economy	Strengthening the readiness of enterprises to effectively adopt and exploit technology and digital advantage (such as 4th Industry Revolution)	Reducing reliance on non-critical subsidies, linking financial assistance and liberalisation efforts to productivity outcomes, and strengthening industry positioning in higher value add segments of the value chain	Addressing regulatory constraints and developing a robust accountability system to ensure effective implementation of regulatory reviews	Embedding culture of productivity through nationwide movement, and driving accountability in productivity performance through effective governance mechanism

From these strategic thrusts, the Blueprint identifies 10 national-level initiatives and 43 sector-level initiatives. Sector Productivity Nexus[1] will drive change at the enterprise level.

Delivering successfully on the Blueprint will pave the way to achieving the labour productivity growth target of 3.7% per annum during the 11MP period. To ensure effective implementation, the development of the Blueprint relies on three guiding principles:

1. Sector Productivity Nexus are described in detail in chapter 6 of the Blueprint.

Productivity must be addressed holistically and in tandem – at the national, sector and enterprise levels

The Blueprint outlines immediate national-level priorities that require policy reform and the government's intervention and action within the next twelve to twenty-four months. For sector-specific initiatives, a rollout in prioritised stages is proposed. At the enterprise level, the Blueprint describes the required expertise and support for enterprises to understand and tackle their productivity challenges on the ground.

NATIONAL-LEVEL INITIATIVES	SECTOR-LEVEL INITIATIVES	ENTERPRISE-LEVEL INITIATIVES
National-level initiatives outline policy priorities to uplift national productivity • To be led by **core government ministries** and agencies • Targets governance of productivity policies **impacting all economic sectors**	**Sector-level initiatives outline explicit sector strategies to address sector-level productivity barriers** • To be led by **key industry associations** and **anchor enterprises** for each sector • Targets acceleration of productivity uplift, **impacting large enterprises and SMEs at sector level**	**Enterprise-level initiatives outline specific enterprise strategies to enhance operations related to productivity improvement** • To be led by **management at enterprises** (including SMEs) with **guidance from sector Productivity Nexus** • Targets productivity improvement at **enterprise level**

Strong coordination and governance are key to securing implementation certainty

The Blueprint implementation requires oversight through a robust governance model. There are four clear roles required going forward: strategic oversight, advisory, coordination and monitoring as well as implementation. Strong coordination is critical to driving implementation on the ground, with rigorous programme management to ensure transparency and accountability. Sector Productivity Nexus will play a key role in supporting enterprises on the ground, simultaneously improving the visibility of the implementation progress.

Productivity needs to be top of mind movement and embedded into day-to-day work culture

Enterprises need to understand the impact that productivity will have on their bottom line, and have access to a feasible method of tracking their productivity. It is essential that government mechanisms encourage productivity (such as by ensuring that all incentives are linked to clear productivity outcomes) so that enterprises adopt productivity tracking as the norm. In addition, a national-level campaign should be launched to ensure targetted messages are communicated at enterprises, government agencies, youth and students as well as the general public.

At the national level, ten initiatives require urgent action. These initiatives are anchored on the five strategic thrusts, and are outlined below:

THRUSTS	NATIONAL INITIATIVES
1 Building Workforce of the Future	Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing reliance on low-wage and low-skilled workers
	Conduct national strategic workforce planning in anticipation of changing needs across the sectors
2 Driving Digitalisation and Innovation	Strengthen readiness, knowledge and adoption of technology by enterprises across sectors
	Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology
3 Making Industry Accountable for Productivity	Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes
	Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes
4 Forging a Robust Ecosystem	Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints
	Establish an accountability mechanism for the implementation of regulatory reviews by the government
5 Securing a Strong Implementation Mechanism	Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels
	Launch nationwide productivity movement to inculcate a stronger culture of productivity across all segments of society

To rollout the national-level initiatives, sixteen key activities have been identified, six of which are to be implemented immediately. The sixteen activities are listed below:

Building Workforce of the Future	Driving Digitalisation and Innovation	Making Industry Accountable for Productivity	Forging a Robust Ecosystem	Securing a Strong Implementation Mechanism
N1 Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing the reliance on low-wage and low-skilled workers	N3 Strengthen readiness, knowledge and adoption of technology by enterprises across sectors	N5 Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes	N7 Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints	N9 Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels
1 Restructure and improve the management of foreign workers	7 Actively encourage adoption of 4th Industry Revolution technologies by companies, across main economic sectors	9 Undertake necessary revisions to ensure regulations are aligned to liberalisation policies	13 Remove non-tariff measures that impede business growth and improve efficency of the logistics sector	16 Evolve governance model to drive game changing implementation of Malaysia Productivity Blueprint • 4 key roles going forward – strategic oversight, advisory, coordination and monitoring, and implementation
2 Launch a National Wage Index and enhance the Productivity-Linked Wages System		10 Develop a schedule for removal of remaining non-critical subsidies		
N2 Conduct national strategic workforce planning in anticipation of changing needs across the sectors	N4 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	N6 Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes	N8 Establish an accountability mechanism for the implementation of regulatory reviews by the government	N10 Launch nationwide productivity movement to inculcate a stronger culture of productivity across all segments of society
3 Accelerate the establishment of the Malaysian Bureau of Labour Statistics to improve labour market statistics and information	8 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	11 Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans	14 Strengthen the regulatory portal and mechanism to track regulatory review implementation	
4 Update job openings and employment projections given changing job profiles for key economic sectors		12 Review existing incentives to reduce/remove non-targetted incentives and align them to programmes with clear targets and outcomes	15 Establish state-level benchmarking indicators for businesses	
5 Assess specific human capital requirements of key economic sectors and pro-actively plan for future human capital needs				
6 Ensure focused efforts on up-skilling and re-skilling in industry through better utilisation of the Human Resources Development Fund				

Immediate Priorities

The six immediate priorities are game changers and will significantly move the needle on productivity improvement. In summary, the six immediate priorities are:

1) **Restructure and improve the management of foreign workers**
   - Formulate and implement a comprehensive foreign workers policy
   - Use sector-specific, structured, phased-out plan complemented by availability of local workers and automation
   - Apply market mechanism based on levies
   - Ensure robust engagement and communication
   - Streamline management of foreign workers through a single point of authority

2) **Actively encourage adoption of 4th Industry Revolution technologies by companies, across main economic sectors**
   - Develop human capital required
   - Create dedicated pool of investment funds or align existing fund to drive 4th Industry Revolution (I4.0) agenda nationally
   - Set up I4.0 centre of excellence to support industry adoption
   - Ensure quality and coverage of digital infrastructure especially broadband to support I4.0

3) **Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology**
   - Ensure seamless movement of SMEs through the entire innovation process under a single platform by providing access to technical assistance, market information, and incubation and testing facilities
   - Increase promotion and marketing of e-commerce to SMEs in collaboration with various platform providers
   - Streamline incentives towards ICT-based business solutions for productivity gains
   - Expedite the establishment of a single window for both business registration and licensing to reduce regulatory burden, and facilitate targetted intervention
   - Intensify internationalisation of SMEs through e-TRADE platform and strategic market alliances

4) **Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans**
   - Establish clear guidelines on approval processes for funds
   - Align disbursement of incentives to productivity milestones
   - Embed self-tracking culture across enterprises by enforcing continuous monitoring of productivity improvements by fund recipients

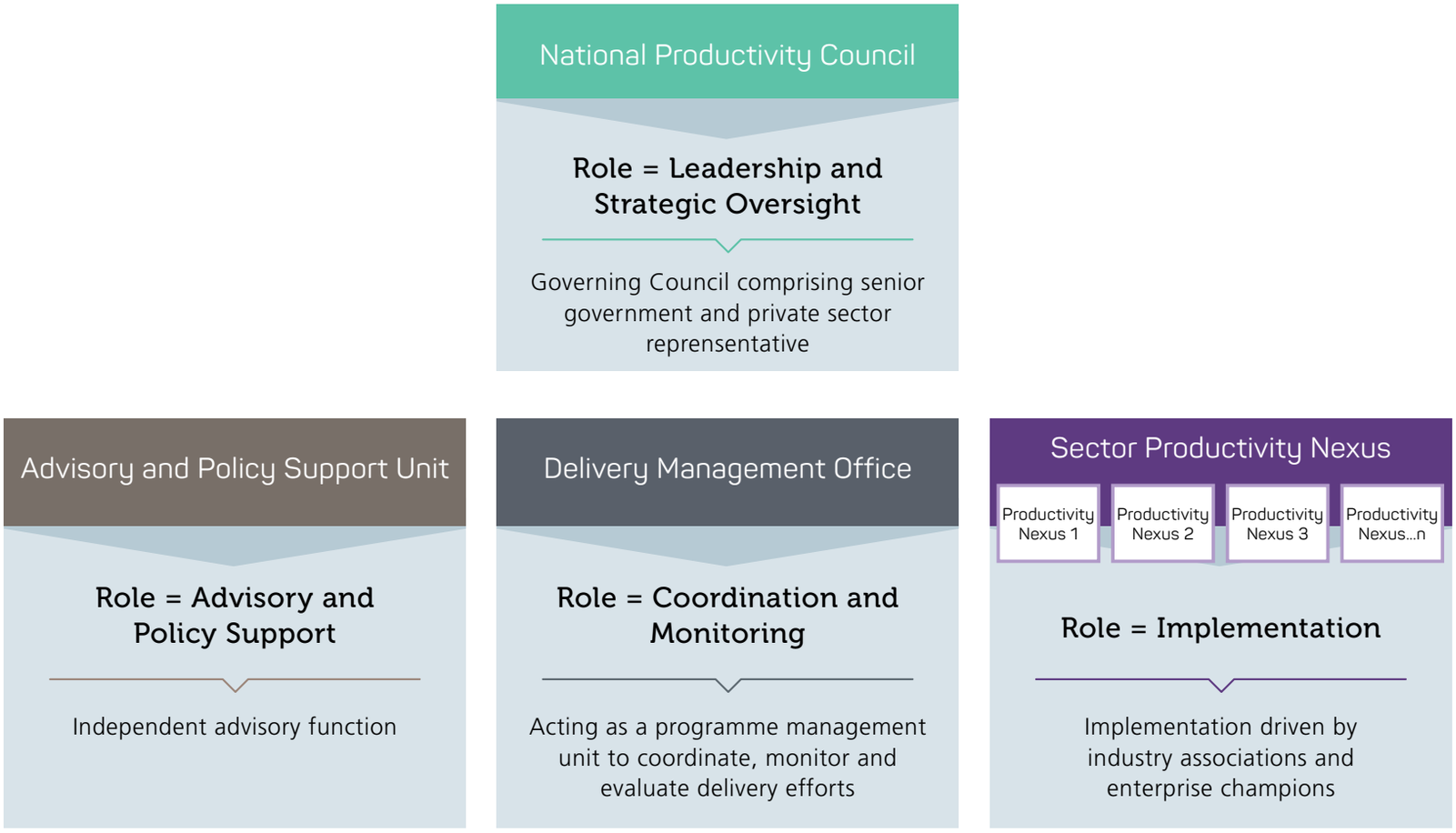
5) **Remove non-tariff measures that impede business growth and improve efficiency of the logistics sector**
   - Accelerate implementation of uCustoms
   - Introduce guillotine approach to reduce regulatory burden
   - Establish and institutionalise an innovative policy development engagement mechanism to embrace disruptive technology
   - Accelerate implementation of the Logistics Masterplan

6) **Evolve governance model to drive game changing implementation of Malaysia Productivity Blueprint**
   - Undertake four key roles going forward - strategic oversight, advisory, coordination and monitoring, and implementation

Five main criteria to guide the design of the new governance model:

	Design Criteria	Implications on Governance Model
1	**Clarity of roles to drive effective implementation efforts** • Evolution of productivity governance model required with **four clear roles going forward – strategic oversight, advisory, coordination and monitoring, and implementation**	Clearly defined roles to ensure cohesive push for productivity
2	**Balancing the role of the government and the private sector** • Government to provide the enabling **ecosystem to drive productivity**, with on-the-ground implementation at enterprise level **led by the private sector** • **Industry associations and enterprise champions to be empowered as key change agents** to drive implementation efforts	Public-private partnership governance model, with industry associations and enterprise champions as key private sector players for implementation
3	**Proper coordination to ensure cohesive efforts, drive accountability and achieve outcomes** • Need for a **strong coordinating body to ensure linkage between public and private sector players**, and **cohesiveness between national, sector and enterprise level** action plans • Robust **monitoring and evaluation efforts** to ensure outcomes are achieved	Setup of a strong coordinating body to drive monitoring and evaluation of implementation efforts
4	**Demarcation of productivity governance and implementation roles vis-a-vis existing agencies** • Critical to define **roles within the productivity governance and implementation model and interactions with other government / private sector entities** • Need to align with existing agencies to **avoid duplicated or conflicted efforts**	Governance model to indicate clear, non-duplicative roles, with industry players able to clearly navigate for support
5	**Empowered with credible leadership, supported by highly competent talent** • Leaders to have **credibility and trust of both government and private sector**. Leadership must be **transparent and accountable for achieving agreed results and outcomes**. • Leaders to have **core competencies required for success** (such as industry expertise and delivery mindset)	Selection of the right leadership and talent as integral part of governance and implementation

Comprehensive, transparent and coordinated efforts via institutionalised governance mechanism



Successful implementation of the Blueprint will ensure that the outcomes will move Malaysia towards more competitive and productive mindsets, and increase the nation's productivity to meet the 11MP targets. Looking into the future, the Blueprint envisions a Malaysia that will serve as a model of excellence regionally and globally in driving productivity transformations.

11MP has set the target to achieve
national labour productivity growth of 3.7% per annum

To achieve this national target, each sector must raise labour productivity growth to target levels[1]

Manufacturing	Services	Agriculture	Mining and Quarrying	Construction
2.6%	4.1%	3.6%	1.1%	9.6%

The Malaysia Productivity Blueprint has paved the 'Drive to Productivity' to achieve these targets

5 KEY STRATEGIC THRUSTS TO ADDRESS PRODUCTIVITY CHALLENGES

1. Building Workforce of the Future
2. Driving Digitalisation and Innovation
3. Making Industry Accountable for Productivity
4. Forging a Robust Ecosystem
5. Securing a Strong Implementation Mechanism

NATIONAL
10 national-level initiatives
16 key activities
6 immediate priorities

SECTOR
9 priority subsectors
3 deep-dive subsectors (Wave 1)
43 sector-level initiatives

ENTERPRISE
3 sector Productivity Nexus
to be established in Wave 1
to boost enterprise productivity

Productivity efforts to be driven holistically at national, sector and enterprise levels

1. 11MP targets.

01

CONTEXT

Malaysian labour productivity growth has decelerated in recent years and productivity levels lag behind developed economies. To sustain its growth momentum, it is imperative for Malaysia to focus on enhancing its productivity performance. The target is to double labour productivity growth to 3.7% per annum during the 11MP period.

Productivity is a game changer to achieving high economic growth

Malaysia's economy has demonstrated a healthy growth trajectory over the last 50 years. As a result of this growth, Malaysia rose from a low-income economy in the 1970s to a middle-income economy in the 1990s, and is now making strides towards becoming an advanced economy and inclusive nation by 2020.

In line with this aspiration, the government has formulated the 11MP to guide the country on this final push towards realising Vision 2020. In this Plan, productivity was identified as a game changer to enable Malaysia to achieve its 2020 economic growth targets. The Eleventh Malaysia Plan (11MP) aims to increase the contribution of multi-factor productivity (MFP)[1] to Gross Domestic Product (GDP) growth to 40% by 2020, as well as increase labour productivity growth to 3.7% per annum during the Plan period. To achieve this, efforts need to be focused on driving productivity improvements over the next few years against a challenging global context of declining productivity, increasingly competitive markets and worsening global macroeconomic trends.

1. MFP and labour productivity are defined in Box 1-1.

BOX 1-1

HOW IS PRODUCTIVITY DEFINED?

Productivity is commonly defined as the ratio of inputs (labour and capital) to output (goods and services), measuring how efficiently inputs are used to produce output. There are two kinds of productivity measures, a MFP measure (relating a measure of output to a bundle of inputs) and a single factor productivity measure (relating a measure of output to a single measure of input). MFP is a measure of the residual GDP growth unaccounted for by capital and labour force growth, and measures the combined productivity of different inputs. Measuring MFP involves significant data requirements. Also, as an indicator that combines multiple inputs, it is less able to inform specific measures to increase productivity. On the other hand, a single factor productivity measure, such as labour productivity, is easier to measure and communicate at the national, sector and enterprise level, as it is able to clearly guide key initiatives to create value for the overall economy. Hence, a single factor productivity measure, labour productivity, will be the measure used throughout this Blueprint.

At the national level, labour productivity is typically expressed as the ratio of value add to total employment.

$$\textit{National Labour Productivity} = \frac{\textit{Value Add}}{\textit{Total Employment}}$$

Value add is the measure of the value generated in each stage of production. Employment is represented by the total number of employed people in the nation, including all documented foreign workers.

At the sector level, labour productivity can be expressed as the ratio of value add to the sector's total employment. Value add is the measure of the sector's contribution to GDP, measured by the value generated in each stage of production.

$$\textit{Sector Labour Productivity} = \frac{\textit{Value Add}}{\textit{Total Employment}}$$

At the enterprise level, labour productivity can be translated into enterprise's value add to GDP to the enterprise's total employment.

$$\textit{Enterprise Labour Productivity} = \frac{\textit{Profits + Wages}}{\textit{Total Employment}}$$

Value add at the enterprise level is expressed as profits and wages. Employment is represented as total number of workers employed at the enterprise.

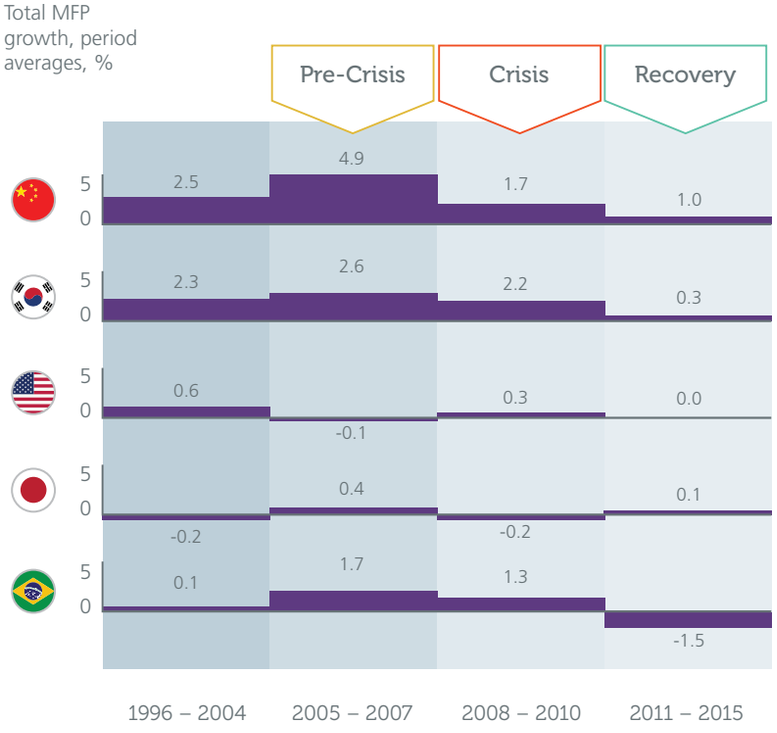
Changes to the level of inputs or output will affect productivity. For example, an increase in capital or improvements in technology can increase value add for a given number of people employed, thereby increasing productivity. Alternatively, higher quality employees can produce a higher level of output, contributing to an increase in value add, which can also lead to an increase in productivity levels.

Global productivity growth is declining

Since 2005, productivity growth has been declining globally, with a number of larger economies contributing to this negative trend. Figure 1-1 shows the diminishing MFP contribution to economic growth of large countries such as China (1.1%), South Korea (0.4%) and United States (-0.2%) between the years 2011 to 2015.

For many emerging economies, growth has been predominantly driven by capital expenditure rather than productivity improvements. Many of these countries are investing in more capital and hiring more labour, without achieving a corresponding improvement in MFP. For example, as shown in Figure 1-2, while China increased its total labour and capital contributions from 5.6 percentage points (p.p.) to 5.8 p.p. between 1996 and 2015, its MFP contribution declined from 3.7 p.p. in 1996, to 1.3 p.p. in 2015, indicating that these investments in labour and capital did not result in increasing its MFP.

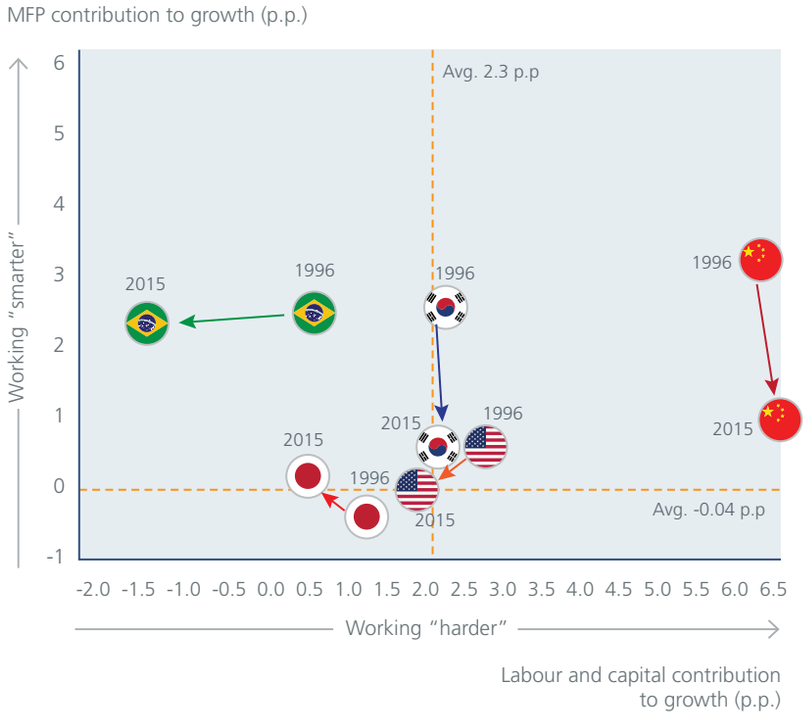
Figure 1-1 TOTAL MFP CONTRIBUTION[1] TO GROSS DOMESTIC PRODUCT FOR SELECTED ECONOMIES (1996 TO 2015)



1. Equivalent to MFP growth following the production function $\Delta \ln GDP = \bar{v}K \Delta \ln K + \bar{v}L\Delta \ln L + \Delta \ln MFP$.

Source: Economic Planning Unit and The Conference Board.

Figure 1-2 MFP AGAINST LABOUR AND CAPITAL CONTRIBUTION FOR SELECTED ECONOMIES (1996 TO 2015)[1]



1. Equivalent to MFP growth following the production function $\Delta \ln GDP = \bar{v}K \Delta \ln K + \bar{v}L\Delta \ln L + \Delta \ln MFP$.

Source: Economic Planning Unit and The Conference Board.

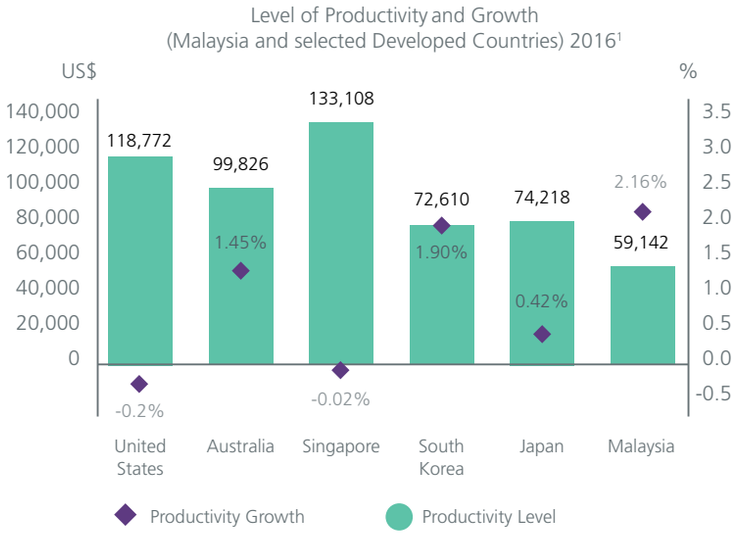
For such countries, the foremost challenge is to ensure that increases in capital and labour expenditure are accompanied by productivity growth. Thereby, achieving a higher amount of output for every unit of input invested.

Malaysia is falling behind in productivity competitiveness

Malaysia's productivity levels are currently lagging behind several developed economies such as Japan, South Korea, Singapore, Australia, and the United States. For example, as shown in Figure 1-3, in 2016, Malaysia's labour productivity per person employed was approximately US$59,100, while the corresponding figure for the United States' was approximately US$118,800.

Malaysia's productivity level is however higher or comparable to its peers as shown in Figure 1-3. But productivty growth rates in these countries are much faster.

Figure 1-3 LEVEL OF PRODUCTIVITY AND PRODUCTIVITY GROWTH OF MALAYSIA AND SELECTED DEVELOPED COUNTRIES (2016)



1. 2015 price level with updated 2011 PPPs.

Source: The Conference Board.

Malaysia's international productivity ranking has also remained stagnant as evidenced by national rankings of countries based on labour productivity per hour worked. Figure 1-4 provides a comparison of countries based on labour productivity per hour worked, and it can be seen that Malaysia remained at the 45th rank globally in both 2009 and 2016.

Figure 1-4 RANKING OF COUNTRIES BY LABOUR PRODUCTIVITY PER HOUR WORKED IN USD (2016)[3]

Rank	2009	2016
1	Norway	Luxembourg
2	Luxembourg	Norway
3	Belgium	Ireland
…	…	…
10	Switzerland	Switzerland
11	Sweden	Sweden
12	Austria	Singapore
13	Finland	Austria
14	Singapore	Australia
…	…	…
17	United Kingdom	Spain
19	Spain	United Kingdom
…	…	…
45	Malaysia →	Malaysia
46	Uruguay	Russian Federation
50	Mexico	Mexico
51	South Africa	South Africa

Source: The Conference Board

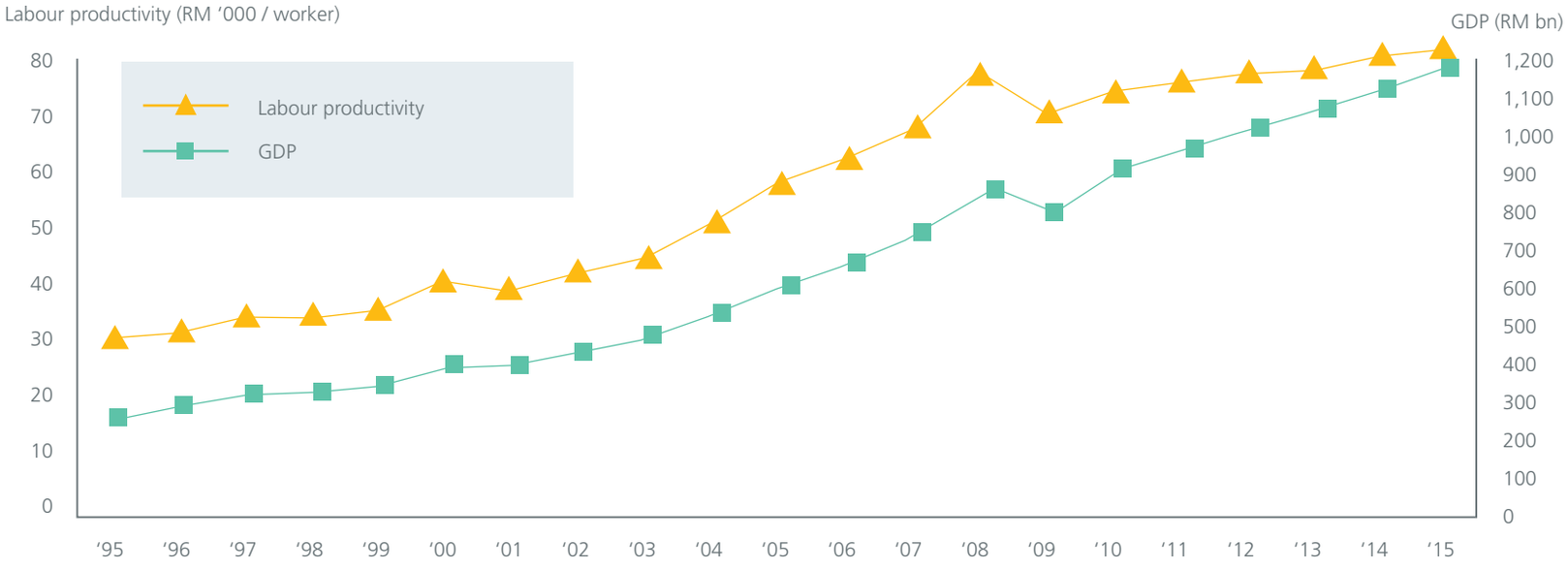
In addition, Malaysia's ranking fell from 22nd (2016) to 23rd (2017) position in the World Bank's Ease of Doing Business Index. This was driven by declines in several indicators, such as the ease of starting a business, registering for a property, paying taxes, trading across borders and resolving insolvency. Malaysia improved in one dimension, which was the getting credit.

In the Global Competitiveness Report by the World Economic Forum, Malaysia demonstrated a decline of seven positions, moving from the 18th (2015-2016) to the 25th (2016-2017) position, and was ranked among the highest in the developing Asian economies. However, several improvements were noted, mostly related to technological readiness and market size due to its credible performance in foreign market size index. The report highlighted that although technological readiness showed an improvement, it continues to remain Malaysia's weakest pillar. Meanwhile, the World Competitiveness Yearbook (WCY) 2016 released by the Institute for Management Development (IMD), reported that Malaysia's competitiveness ranking has declined to 19th position compared to 14th position in 2015.

High reliance on capital to grow GDP is unsustainable

For Malaysia to grow sustainably, it is pivotal that we move from input-driven growth to productivity-driven growth. The Global Competitiveness Report suggests that most of Malaysia's past GDP contribution has been input driven, supported by private investments in industry and public investments in infrastructure, utilities, schools and healthcare. This finding is in line with the fact that efforts to increase innovation and productivity and move towards a knowledge-based economy only began in the mid 1990s. It is especially critical that Malaysia moves away from relying heavily on capital for GDP growth as this is unsustainable in the long run due to increasing cost of growth via capital stock. The Blueprint focuses on improving Malaysia's labour productivity performance to ensure that reliance on capital-driven growth is reduced.

Figure 1-5 MALAYSIA'S GDP GROWTH AGAINST MALAYSIA'S LABOUR PRODUCTIVITY GROWTH (1995-2015)



Source: Economic Planning Unit and Department of Statistics Malaysia.

What is the way forward for Malaysia?

In recent years, labour productivity growth has slowed down compared with GDP growth. For example, as shown in Figure 1-5, Malaysia's GDP registered a growth of 5.3% per annum between 2011 and 2015.

However, during the same period, Malaysia's labour productivity growth was only 1.8% per annum. Under the 11MP, Malaysia sets out to achieve 3.7% year-on-year growth in labour productivity. This translates into a targetted increase in productivity per worker from RM75,550 in 2015 to RM92,300 by 2020. In order to achieve this, it is critical that productivity improvement be accelerated.

In light of these challenges, the Government has drawn up a comprehensive and inclusive Blueprint in collaboration with all stakeholders, particularly industry players. The Blueprint sets out the initiative that must be implemented in the immediate and medium term to bring impactful increase in productivity and to propel economic growth.

"Productivity is one of the game changers under the 11MP, where renewed efforts will be undertaken to boost productivity in a focused and targetted manner with clear outcomes at the national, sector and enterprise levels."

Eleventh Malaysia Plan, 2016-2020 | Unlocking the Potential of Productivity

PRODUCTIVITY IS CRUCIAL FOR LONG-TERM BUSINESS SUCCESS

Raising productivity will improve business competitiveness and profitability to ensure businesses stay strong in the face of growing international competition

02

PRODUCTIVITY AT A GLANCE

Under the 11MP, Malaysia sets out to increase labour productivity from 1.8% to 3.7% year-on-year growth. In order to achieve this, it is critical that productivity improvement be accelerated.

Understanding productivity performance at the national level

Malaysia's overall labour productivity has been growing at a historical rate of 1.8% from 2011 to 2015. The increase in labour productivity was a result of higher growth in value add as compared to growth in employment in this time period[1]. However, the proportion of skilled labour has been decreasing, from 27.6% of total employment in 2010, to 25.5% of total employment in 2015[2]. The decline in the proportion of skilled labour can also be attributed to the growth of foreign labour, which grew at 4.8% per annum between 2010 to 2015, reaching a total of 2.1 million[3].

When the productivity of large and small-medium enterprises is compared, large enterprises grew at a rate of 2.9% per annum, while SME productivity levels have been declining at a rate of -0.6% per annum between 2010 to 2015[4]. In 2015, large enterprises were also 3.3 times more productive than SMEs.

If Malaysia continues to experience slowing labour productivity growth, a high level of foreign labour employment, a declining proportion of skilled workers and a significant large versus small-medium enterprise productivity gap, the nation will be at risk of missing the 11MP productivity targets.

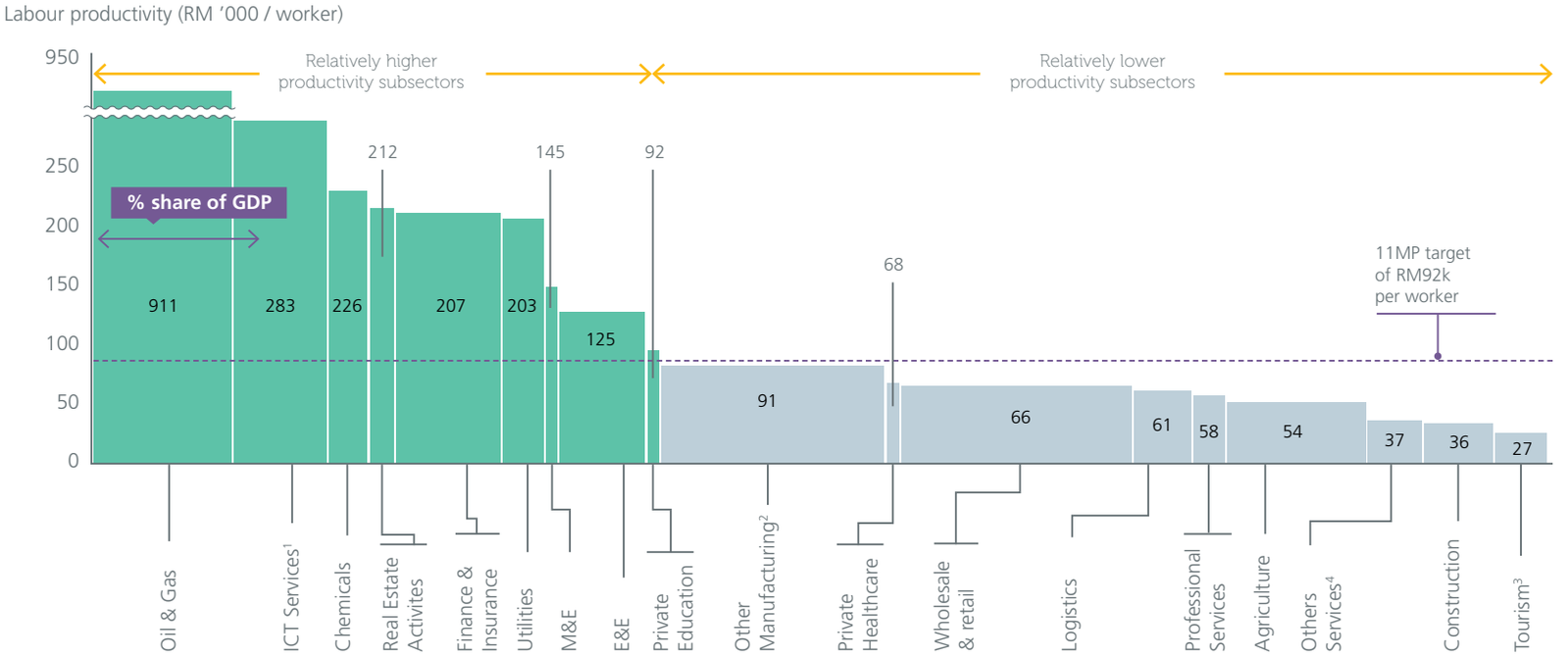
Understanding productivity performance at the sector level

Figure 2-1 shows the productivity performance of Malaysia's subsectors in 2015, against 11MP targets of RM92,300 value add per worker. Subsectors highlighted in green such as oil and gas, ICT services, finance and insurance, utilities, real estate and manufacturing have met and exceeded the 2020 national productivity target. In comparison, most of the services, construction and agriculture sectors have productivity levels, which are significantly lower than the target.

Sector productivity performance is analysed based on the five main economic sectors - agriculture, manufacturing, services, construction, and mining and quarrying.

1 & 2. Data from the Department of Statistics Malaysia.
3. Data from Ministry of Home Affairs.
4. Data obtained from SME Corp, at constant 2010 prices.

Figure 2-1 BREAKDOWN OF PRODUCTIVITY BY SUBSECTORS COMPARED TO 11MP PRODUCTIVITY TARGETS (2015)



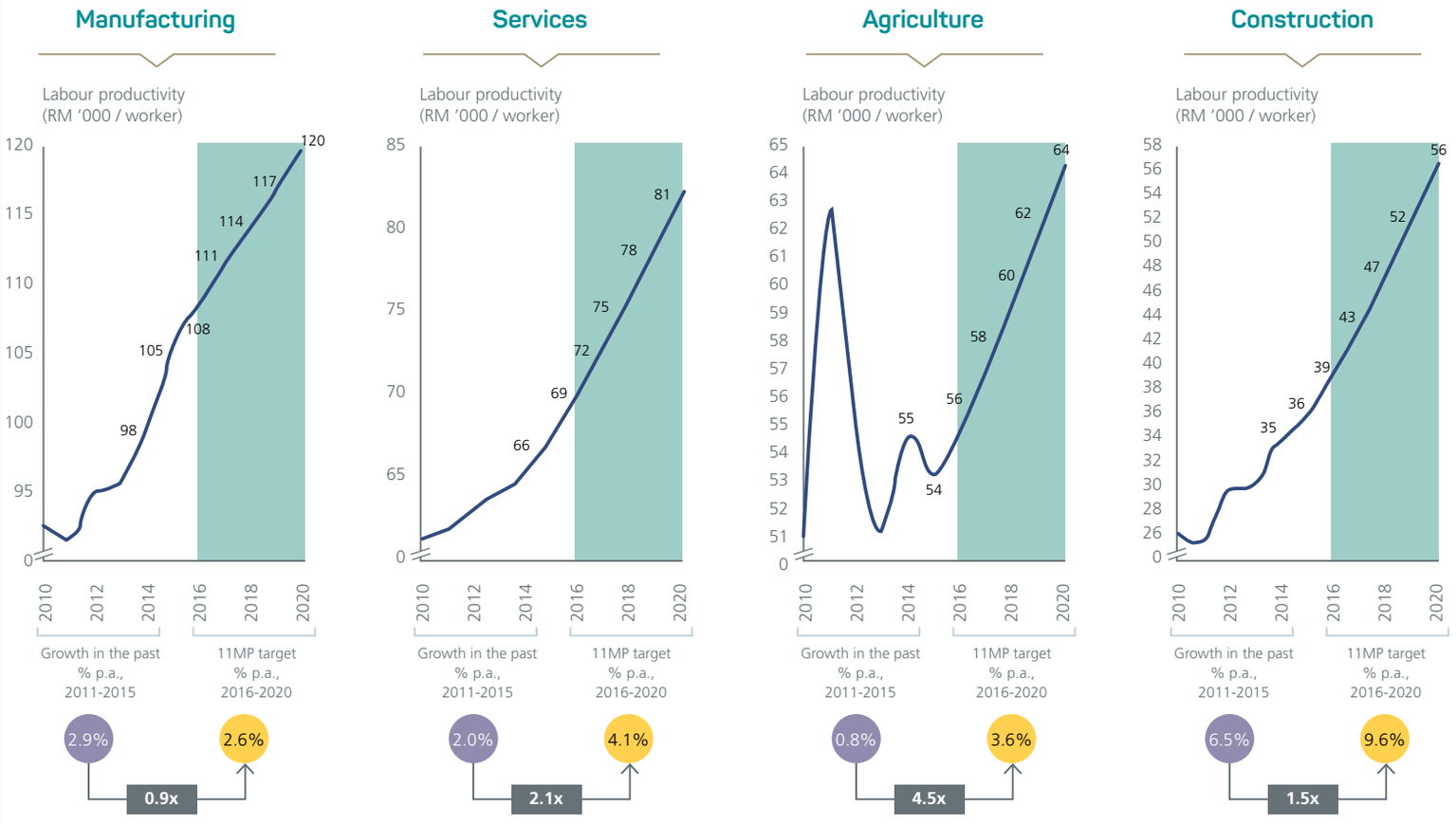
SUBSECTORS	Oil & Gas	ICT Services[1]	Chemicals	Finance & Insurance	Utilities	M&E	E&E	Private Healthcare	Retail & Wholesale	Logistics	Professional Services	Agriculture	Con-struction	Tourism[3]
Best in Class	127	152	370	335	637	389	557	758	256	423	590	747	1,067	524
Comparable GDP per Capita[5]		97	56	126	159	142	36	179	175	167	459	54	247	176

Note: Subsectors that meet 11MP overall RM92k per worker target are considered as relatively higher productivity subsectors.
1. ICT Services exclude ICT related manufacturing as already included as part of E&E.
2. Other Manufacturing includes food processing, beverages, tobacco products, textile, leather products, wood products, paper products, refined petroleum products, non-metallic and metallic products.
3. Food & Beverage Services is included in Tourism.
4. Other Services comprise of domestic household services, social work activities and non-governmental bodies.
5. Indexed based on Malaysia = 100.

Source: Economic Planning Unit, Department of Statistics Malaysia, and Malaysia Productivity Corporation.

BOX 2-1

AT CURRENT GROWTH RATES, MOST SECTORS WILL FALL SHORT OF 11MP PRODUCTIVITY TARGETS



Note: Labour productivity levels for 2016-2020 are based on 11MP productivity growth targets.

Source: Economic Planning Unit, Department of Statistics Malaysia, and Malaysia Productivity Corporation.

Figure 2-2 PROFILE OF MAJOR ECONOMIC SECTORS

Sector	Value Add								
	RM Billion, 2015			Share to GDP (%), 2015			Growth (% p.a.), 2011-2015		
	Total	Large	SMEs	Total	Large	SMEs	Total	Large	SMEs
Agriculture	94.4	48.3	46.1	*8.9*	*4.5*	*4.3*	*2.6*	*0.0*	*5.7*
Mining and Quarrying	95.1	93.5	1.6	*9.0*	*8.8*	*0.2*	*1.2*	*0.9*	*32.6*
Manufacturing	244.2	160.5	83.7	*23.0*	*15.1*	*7.9*	*4.9*	*3.8*	*7.2*
Construction	46.6	24.5	22.1	*4.4*	*2.3*	*2.1*	*10.6*	*3.4*	*24.2*
Services	568.9	341.7	227.1	*53.5*	*32.2*	*21.4*	*6.2*	*5.7*	*7.2*
TOTAL	**1,062.8**	**677.2**	**385.6**	***100.0***	***63.7***	***36.3***	***5.3***	***4.0***	***7.8***

Sector	Number Establishments				Employment		Labour Productivity		
	Number		Share to Total (%), 2010		Growth (% p.a.), 2011-2015	Share of Total %	(RM), 2015	Growth (% p.a.), (2011-2015)	Gap, large/SMEs
	Large	SME	Large	SME	Total	Foreign workers			
Agriculture	2,121	6,708	*4.6*	*95.4*	*1.7*	*36.9*	53,676	*0.9*	2.2
Mining and Quarrying	119	299	*28.5*	*71.5*	*12.8*	*6.1*	911,245	*-10.3*	52.1
Manufacturing	1,808	37,861	*4.6*	*95.4*	*2.0*	*18.7*	105,138	*2.9*	1.5
Construction	2,857	19,283	*12.9*	*87.1*	*3.9*	*23.9*	35,601	*6.4*	1.2
Services	10,898	580,985	*1.8*	*98.2*	*4.0*	*8.4*	66,329	*2.1*	5.6
TOTAL	**17,803**	**645,136**	***2.7***	***97.3***	***3.4***	***15.1***	**75,549**	***1.8***	**3.3**

Source: Economic Planning Unit, Department of Statistics Malaysia, and SME Corp.

Productivity performance of main economic sectors

Most of the economic sectors recorded labour productivity below national average of RM75,550 in 2015 except for the manufacturing and mining sectors, which recorded RM911,250 and RM105,138, respectively. Among the main structural challenges to productivity improvements that were common across the sectors are the dominance of low-skilled workers, high proportion of foreign workers and large presence of SMEs with high productivity gap compared to large enterprises, as shown in Figure 2-2.

Between 2011 and 2015, total employment rose by 3.4% per annum, from 11.9 million in 2010 to 14.1 million in 2015. The growth was mainly driven by the faster expansion of semi- and low-skilled workers at 4.0% per annum. As a result, the share of skilled workers has fallen from 27.6% of total employment in 2010 to 25.5% in 2015.

The reliance on foreign workers also increased[5], where its share to total employment increased from 14.1% in 2010 to 15.1% in 2015. The dependence of foreign workers is particularly high in the agriculture sector, where they made up 36.9% of the employment in the sector. This is followed by the construction sector at 23.9% and manufacturing at 18.7%. The high proportion of low-skilled workers coupled with the high dependence on foreign workers have resulted in low labour productivity performance in the agriculture sector, where it rose by only 0.9% per annum during 2011-2015, lower than the national average of 1.8% per annum.

In 2015, SMEs employed 65.5% of the workers in the labour force but contributed 36.3% to total GDP. This translated into a lower labour productivity performance among the SMEs as compared to the large firms, where the latter was 3.3 times more productive than the former. The lower productivity for SMEs was partly due to the high reliance on labour input. SMEs employment increased by 8.5% per annum during 2011-2015, which is 8 times faster than that of the large firms.

5. Refer to the non-citizen component in the Labour Force Survey publised by the Department of Statistics Malaysia.

Productivity growth is impacted by

5

core challenges

across sectors

Overall, productivity across sectors has been growing at a slower rate, and has been hindered by five common challenges:

Talent

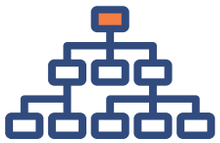
Enterprises face shortages in talent to drive long-term productivity. Many cite low-wage levels and poor English language skills as the contributing factors to the depleting talent pool, as it becomes increasingly difficult to attract and retain a skilled workforce. In addition, disconnection between academia and industry also contributes to graduate unemployment as they are not perceived as industry-ready, and typically require re-training. Due to high turnover rates, enterprises have a low level of willingness to invest in training programmes to upskill existing employees. In parallel, enterprises have increased their employment of low-skilled foreign workers, with foreign worker growth in the construction and services sectors of 26.0% and 12.2%, respectively from 2011 to 2015[6]. Despite steady total employment growth of 3.4%[7], the proportion of highly skilled workers has remained constant at 25% over the years.

Technology

With relatively limited levels of investment in technology and digitalisation, Malaysian enterprises are limiting productivity growth. SMEs frequently cited insufficient commercial funding and low awareness of available options as the key barriers to adopting new technology. The lack of collaboration between academia and industry has also led to a low commercialisation rate of research and development. Transfer of technology and knowledge by MNCs to local enterprises is also limited. There is also a need for quality and affordable digital infrastructure.

6. Data from Ministry of Home Affairs.
7. Data from Department of Statistics Malaysia.

Incentive Structure



Most of the economic sectors are characterised by a high number of relatively small players. This raises concerns as the market is highly fragmented and individual enterprises have limited economies of scale to deliver high value add. In addition, key sectors that drive the Malaysian economy, such as manufacturing, are focusing more on the low-value market segment but have yet to establish significant presence in the high value segment. Many government incentives have been provided for enterprises to upgrade themselves but these initiatives have not necessarily functioned as levers to boost productivity.

Business Environment

While Malaysia has made significant improvements to reduce regulatory burden there remain work to be done. Inconsistent interpretation and application of regulations, existing regulatory constraints and nuances between federal and state government create additional challenges in enhancing enterprise-level productivity. The cost of starting a business in Malaysia currently stands at 6.7% of income per capita, more than two times that of developed countries[8].

Productivity Mindset

At present, there is limited understanding of the benefits of productivity among Malaysian enterprises. 95% of the enterprises surveyed agreed with the statement that 'productivity is important'[9]. While this awareness is encouraging, only 40% of enterprises surveyed tracked their productivity systematically[10]. Given the various challenges faced by Malaysian businesses, improving productivity is not a primary concern, and many enterprises and business owners are currently contented with the status quo, and hesitate to adopt new yet more efficient operating methods.

8. World Bank Doing Business 2015.
9 & 10. Online Productivity Survey.

03

FIVE STRATEGIC THRUSTS AND NATIONAL-LEVEL INITIATIVES

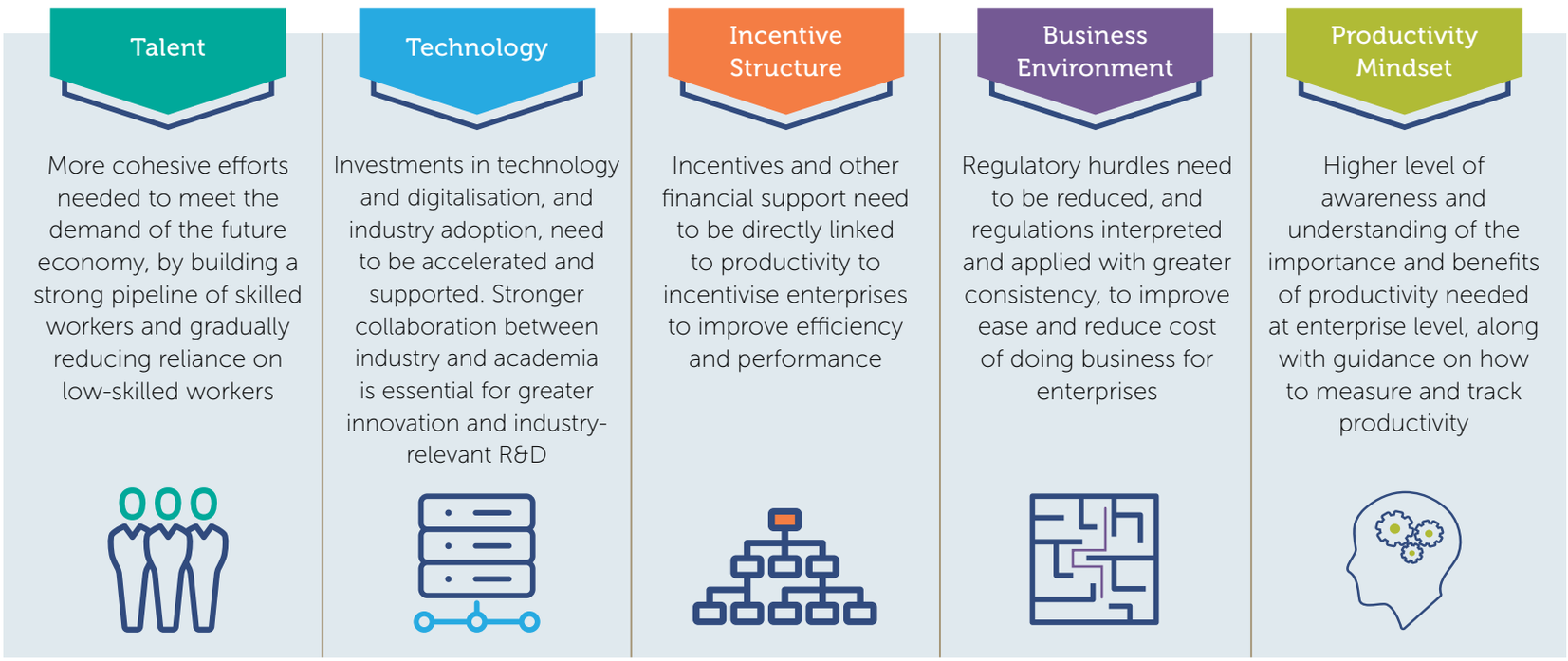
The Blueprint presents a holistic approach towards unlocking the potential of productivity of the nation by addressing productivity challenges at all levels – national, sector and enterprise levels. This new approach to productivity will shift from primarily government-driven initiatives at the national level to targetted actions across industry players and individual enterprises, with industry champions identified to role model change and ensure buy-in across stakeholders. This chapter will focus on national-level initiatives to address cross-cutting issues.

Despite the numerous initiatives introduced in the past, productivity levels are still wanting by all measurements and the economy remains highly dependent on traditional factor inputs of labour and capital. The Blueprint presents a holistic approach towards unlocking the potential of productivity of the nation by addressing productivity challenges at all levels – national, sector and enterprise levels. This new approach to productivity will shift from primarily government-driven initiatives at the national level to targetted actions across industry players and individual enterprises, with industry champions identified to role model change and ensure buy-in across stakeholders. Broad-based initiatives will be developed and tailored for each sector with targets set and monitored. At the national level, productivity-linked incentives will be introduced and regulatory reforms will be accelerated. At the sector level, industry champions will spearhead sector-specific productivity initiatives, while at the enterprise level, incentives and upskilling programmes will be provided. Collectively, these strategies will produce a set of major shifts in productivity for the nation.

This chapter describes the five national-level strategic thrusts that anchor the Blueprint recommendations: Building Workforce of the Future, Driving Digitalisation and Innovation, Making Industry Accountable for Productivity, Forging a Robust Ecosystem and Securing a Strong Implementation Mechanism. The ten national-level initiatives that align with the strategic thrusts are then presented, out of which 16 key activities that require action and implementation in the near future are identified. Finally, six immediate priorities are drawn from these activities.

Across the economic sectors, a set of common challenges is impeding productivity growth, requiring urgent action. These challenges are grouped into five clusters - talent, technology, incentive structure, business environment and productivity mindset (see Figure 3-1).

Figure 3-1 CHALLENGES FACED ACROSS SECTORS



While efforts have been made to raise productivity through various initiatives, effective implementation and enforcement of these initiatives needs to be further enhanced. To ensure effective implementation, the Blueprint has three guiding principles:

Figure 3-2 THREE GUIDING PRINCIPLES OF THE MALAYSIA PRODUCTIVITY BLUEPRINT

The Blueprint outlines immediate national-level priorities that require policy reforms and government intervention, while sector-level initiatives outline explicit sectoral strategies to remove sector-level productivity barriers. At the enterprise level, the Blueprint describes the specific enterprise strategies, and required expertise and support for enterprises to understand and tackle their productivity challenges on the ground.

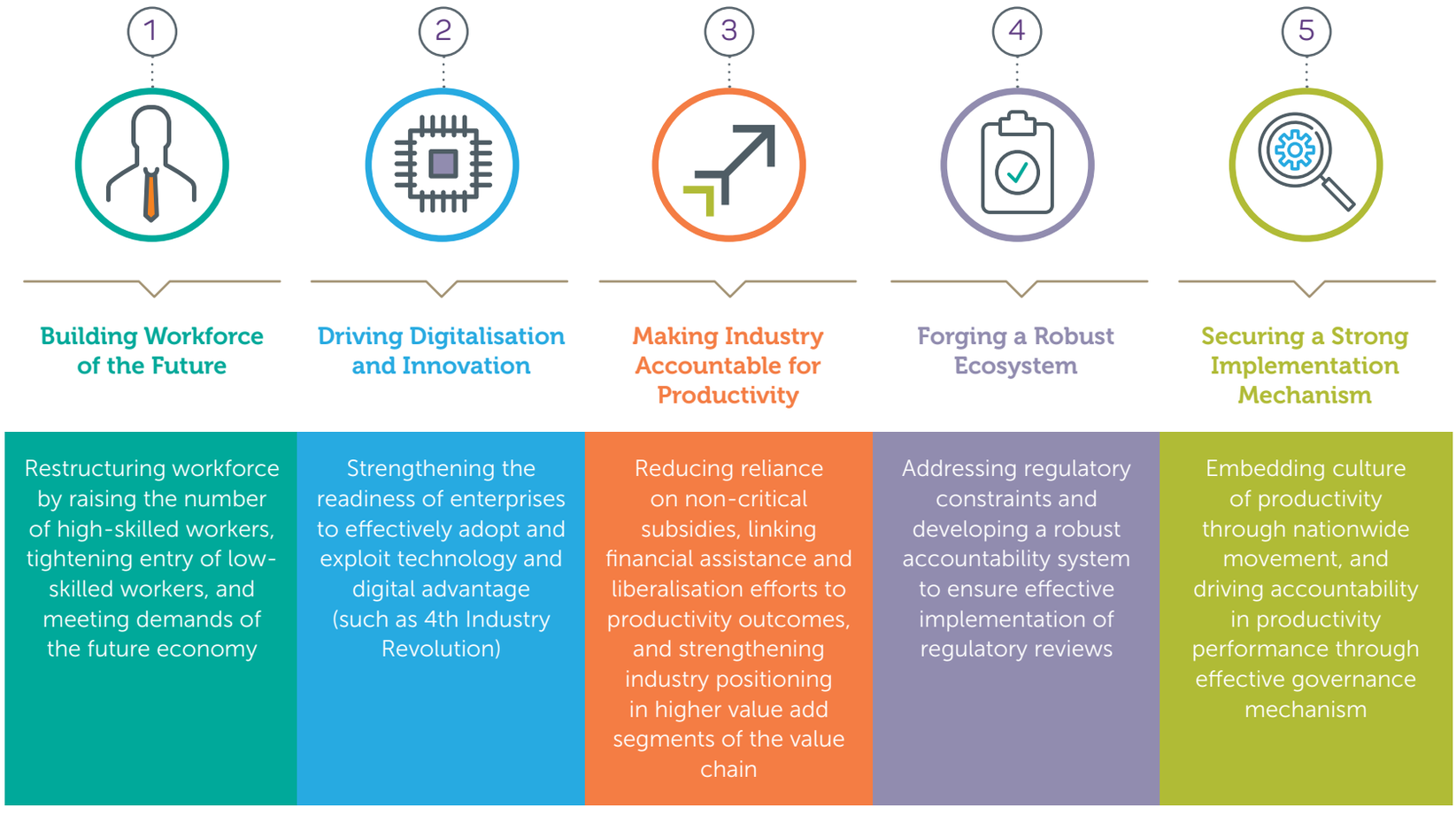
The Blueprint implementation requires oversight through a robust governance model. There are four clear roles required going forward: strategic oversight, advisory, coordination and monitoring as well as implementation. Strong coordination through a central hub is critical to driving implementation on the ground, with rigorous programme management to ensure transparency and accountability. Productivity Nexus[1] will play a key role in supporting enterprises on the ground, simultaneously improving the visibility of the implementation progress.

Enterprises need to understand the impact that productivity will have on their bottom line, and have access to a feasible method of tracking their productivity. It is essential that government mechanisms encourage productivity (such as by ensuring that incentives are linked to clear productivity outcomes) so that enterprises adopt productivity tracking as the norm. In addition, national-level campaigns should be launched to ensure targetted messages are emphasised to all segments of society.

1. Productivity Nexus is described in detail in Chapter 6.

Guided by these three principles, the five strategic thrusts at the national level to raise productivity are as follows (see Figure 3-3).

Figure 3-3 5 STRATEGIC THRUSTS AIMED AT ADDRESSING CHALLENGES IMPEDING PRODUCTIVITY GROWTH ACROSS SECTORS



Based on the five strategic thrusts, ten national initiatives and sixteen key activities (see Figure 3-4), will drive nation-wide productivity improvement.

Figure 3-4 THE 10 NATIONAL-LEVEL INITIATIVES IDENTIFIED THAT REQUIRE URGENT IMPLEMENTATION:

THRUST		NATIONAL-LEVEL INITIATIVE	STAKEHOLDER
1	Building Workforce of the Future	N1 Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing reliance on low-wage and low-skilled workers	MOHA MITI Industry
		N2 Conduct national strategic workforce planning in anticipation of changing needs across the sectors	
2	Driving Digitalisation and Innovation	N3 Strengthen readiness, knowledge and adoption of technology by enterprises across sectors	MITI SME Corp MCMM Industry
		N4 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	
3	Making Industry Accountable for Productivity	N5 Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes	MOF MITI MOA
		N6 Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes	
4	Forging a Robust Ecosystem	N7 Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints	MPC
		N8 Establish an accountability mechanism for the implementation of regulatory reviews by the government	
5	Securing a Strong Implementation Mechanism	N9 Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels	MITI
		N10 Launch nationwide productivity movement to inculcate a stronger culture of productivity across all segments of society	

Figure 3-5 16 KEY ACTIVITIES IDENTIFIED ACROSS ALL INITIATIVES

Building Workforce of the Future	Driving Digitalisation and Innovation	Making Industry Accountable for Productivity	Forging a Robust Ecosystem	Securing a Strong Implementation Mechanism
N1 Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing the reliance on low-wage and low-skilled workers	N3 Strengthen readiness, knowledge and adoption of technology by enterprises across sectors	N5 Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes	N7 Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints	N9 Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels
1 Restructure and improve the management of foreign workers	7 Actively encourage adoption of 4th Industry Revolution technologies by companies, across main economic sectors	9 Undertake necessary revisions to ensure regulations are aligned with liberalisation policies	13 Remove non-tariff measure that impede business growth and improve efficiency of the logistics sector	16 Evolve governance model to drive game changing implementation of Malaysia Productivity Blueprint • 4 key roles going forward – strategic oversight, advisory, coordination and monitoring, and implementation
2 Launch a National Wage Index and enhance the Productivity-Linked Wages System		10 Develop a schedule for removal of remaining non-critical subsidies		
N2 Conduct national strategic workforce planning in anticipation of changing needs across the sectors	N4 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	N6 Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes	N8 Establish an accountability mechanism for the implementation of regulatory reviews by the government	N10 Launch nationwide productivity movement to inculcate a stronger culture of productivity across all segments of society
3 Accelerate the establishment of the Malaysian Bureau of Labour Statistics to improve labour market statistics and information	8 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	11 Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans	14 Strengthen the regulatory portal and mechanism to track regulatory review implementation	
4 Update job openings and employment projections given changing job profiles for key economic sectors		12 Review existing incentives to reduce/remove non-targetted incentives and align them to programmes with clear targets and outcomes	15 Establish state-level benchmarking indicators for businesses	
5 Assess specific human capital requirements of key economic sectors and pro-actively plan for future human capital needs				
6 Ensure focused efforts on up-skilling and re-skilling in industry through better utilisation of the Human Resources Development Fund				

Immediate Priorities

The six immediate priorities are game changers that address the issue of productivity in a holistic manner across the five strategic thrusts.

The six immediate priorities are game changers that address the issue of productivity in a holistic manner, addressing the key challenges across the five strategic thrusts (see Figure 3-5). They will each require strong stakeholder buy-in, ownership and accountability for successful delivery and implementation. These need to be implemented as soon as possible in order to achieve the targetted increase in productivity for the nation.

The rest of this chapter describes the national-level initiatives, key activities, and immediate priorities across the strategic thrusts following the structure presented in Figure 3-5. While a rationale and overall description for each key activity is outlined, a more detailed discussion on the design, implementation and enforcement is provided for the immediate priorities. The fifth thrust, 'Securing a Strong Implementation Mechanism', is described in further detail in Chapter 6 of the Blueprint.

Building Workforce of the Future

It is imperative to bring structural changes to the workforce by increasing the proportion of higher-skilled human capital and reducing reliance on low-skilled and low-wage workers. Towards this end, the Blueprint recommends two national-level initiatives:

- **Initiative N1:** Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing the reliance on low-wage and low-skilled workers
- **Initiative N2:** Conduct national strategic workforce planning in anticipation of changing needs across the sectors

N1 INITIATIVE N1

Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing the reliance on low-wage and low-skilled workers

Initiative N1 focuses on restructuring and improving the management of foreign workers. This initiative is aligned with the third strategic thrust of the Eleventh Malaysia Plan, 2016-2020 (11MP), specifically in Focus area A[2] to improve labour market efficiency.

The key activities contained within this initiative are as shown below:

N1	Enforce structural changes to the workforce by formulating a comprehensive labour market policy, including reducing the reliance on low-wage and low-skilled workers
1	Restructure and improve the management of foreign workers
2	Launch a National Wage Index and enhance the Productivity-Linked Wages System

1 Key Activity 1

Restructure and improve the management of foreign workers

The 11MP comprehensively outlines strategies to improve the management of foreign workers as well as enhance labour productivity and wages, by shifting to high-skilled jobs. Although Malaysia has set a maximum threshold of 15% for foreign workers across all sectors, efforts to reduce the reliance on low-skilled foreign workers are largely fragmented due to the existence of several implementing agencies, and could benefit from improved coordination.

2. Focus area A: Improving labour market efficiency to accelerate economic growth, under Chapter 5: Accelerating human capital development for an advanced nation.

In restructuring and improving the management of foreign workers, it is recommended that a comprehensive foreign workers policy be formulated and implemented encompassing a structured phased-out plan of foreign workers. This policy should be complemented by the availability of local workers and greater automation in production processes to ensure least disruption to industry.

A single point of authority on all matters related to foreign workers must be established to streamline the development, administration and enforcement of foreign workers policies, and reduce overlaps and inconsistencies.

Foreign worker's levies must be restructured to be based on sector, skill level and proportion of foreign workers in companies. Currently, levies are only tiered by sector:

- **Sector/subsector:** Higher levies for sectors/subsectors with higher labour intensity
- **Skill level:** Highest levies will be imposed for the recruitment of lowest-skilled workers
- **Proportion of foreign workers employed:** Higher levies for companies with a higher proportion of foreign employees

To date, employees bear the burden of levy charges, with little incentive for industries to reduce employment levels of foreign workers. The Blueprint recommends that levies are borne instead by employers. The industry-specific foreign workers plan must be formulated through comprehensive consultation and engagement with the industry. It must have clear timeline and clearly communicated.

2 Key Activity 2

Launch a National Wage Index and enhance the Productivity-Linked Wages System

Establish a National Wage Index by setting wage benchmarks based on skill level in consultation with industry. This Index should be linked to the 40% target share of employees' compensation to the gross domestic product (GDP) as stated in the 11MP. In addition, there is a need to standardise skills certification of varying skill levels to enable easy referencing and comparisons. The Productivity-Linked Wage System (PLWS[3]) also must be clearly communicated to ensure employers and employees understand the wage impact and required reporting practices.

N2 INITIATIVE N2

Conduct national strategic workforce planning in anticipation of changing needs across the sectors

Initiative N2 focuses on ensuring that stakeholders are aware of the future skills required in their sectors and enable them to plan accordingly. Through national strategic workforce planning, stakeholders including universities, Technical and Vocational Education and Training (TVET) institutions and industry players will have clarity on future skills requirements and address any skills mismatch in the labour market. This initiative supports the 11MP's third strategic thrust, especially for Focus area B[4] that aims to collectively expand Malaysia's skilled human capital pool and also increase the appeal of careers in various sectors.

The key activities contained within this initiative are:

N2	Conduct national strategic workforce planning in anticipation of changing needs across the sectors
3	Accelerate the establishment of the Malaysian Bureau of Labour Statistics to improve labour market statistics and information
4	Update job openings and employment projections given changing job profiles for key economic sectors
5	Assess specific human capital requirements of key economic sectors and pro-actively plan for future human capital needs
6	Ensure focused efforts on up-skilling and re-skilling in industry through better utilisation of the Human Resources Development Fund

3 Key Activity 3

Accelerate the establishment of the Malaysian Bureau of Labour Statistics to improve labour market statistics and information

Timely and comprehensive labour market statistics is crucial for labour productivity measurement and formulation of labour market policy. Currently, high-frequency labour statistics in Malaysia are mainly collected from household and establishment surveys. They do not incorporate information from administrative records, which can provide timely and better indication of actual

3. PLWS is an effort promoted by MOHR that links the annual increment of salary and variable components of the salary, such as bonuses, to productivity outcomes.
4. Focus area B: Transforming TVET to meet industry demand, under Chapter 5: Accelerating human capital development for an advanced nation.

labour market conditions in the economy. Therefore, the Blueprint recommends accelerating the establishment of a dedicated unit in the Department of Statistics for the compilation of labour market statistics to enhance the quality and availability of key labour statistics in Malaysia to support policy research and monitoring.

4 Key Activity 4

Update job openings and employment projections given changing job profiles for key economic sectors

Educational institutions have expressed concerns that there is insufficient detailed information on the demand for labour, hampering their ability to meet the requirements of the industry. The Blueprint recommends a systematic assessment and sharing of information on job openings and employment projections. This is especially critical given the rapid change in job profiles for key economic sectors, such as services and manufacturing.

5 Key Activity 5

Assess specific human capital requirements of key economic sectors and pro-actively plan for future human capital needs

Presently, there is a low awareness of the impact of technology advancements on job profiles and employment. This will present a challenge for the educational institutions, industries and government in human capital planning. The Blueprint calls for an overall assessment of the specific human capital requirements of key economic sectors to be conducted. This should be initiated for sectors with the largest shortfall in skilled workers. A proactive plan for future human capital needs is also required given the rapidly evolving industry trends, such as 4th Industry Revolution (I4.0)[5].

6 Key Activity 6

Ensure focused efforts on up-skilling and re-skilling in industry through better utilisation of the Human Resources Development Fund

Given the fact that fast-paced technology advancements are disrupting operations across many sectors, it is critical for enterprises to prepare continuously for the emerging innovations. They need to be encouraged to up-skill and re-skill their workforce through improved utilisation of the Human Resources Development Fund (HRDF).

5. 4th Industry Revolution is the comprehensive transformation of the whole sphere of industrial production through the merging of digital technology and the internet with conventional industry (source: European Union, 2015).

2

Driving Digitalisation and Innovation

This thrust centres around boosting technological advantages at the forefront of productivity growth. The key outcomes of this thrust are to increase investments in research and development (R&D), drive greater adoption of technology to improve efficiency and develop an integrated business environment. The two national-level initiatives recommended to achieve these goals are:

- **Initiative N3**: Strengthen readiness, knowledge and adoption of technology by enterprises across sectors
- **Initiative N4**: Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology

N3 INITIATIVE N3
Strengthen readiness, knowledge and adoption of technology by enterprises across sectors

This initiative has one key activity, which is also an immediate priority for implementation:

N3	Strengthen readiness, knowledge and adoption of technology by enterprises across sectors
7	Actively encourage adoption of 4th Industry Revolution technologies by companies across main economic sectors

The increased application of technology has been proven to deliver higher quality products. Initiative N3 will raise the overall affordability of adopting technology infrastructure to enable industries to improve their efficiency. This is in line with the fifth strategic thrust in the 11MP of 'Strengthening Infrastructure to Support Economic Expansion'[6]. The initiative ultimately aims to enable Malaysia to become a developed digital economy by 2020 as well as improve its ranking in the World Economic Forum's Global Information Technology.

7 Key Activity 7
Actively encourage adoption of 4th Industry Revolution technologies by companies across main economic sectors

Currently, the path towards the adoption of I4.0 technologies is unclear for most companies. Challenges with human capital and access to I4.0 expertise persist, along with the need for dedicated centres of excellence to provide an immersive experience and drive industry adoption. The larger investment funds, such as the Domestic Investment Strategic Fund (DISF), mostly focus on traditional mechanisation incentives, such as the upgrading of machinery, and are typically sector-specific. The rollout of I4.0 should be prioritised focusing on sectors and industries that will have the highest impact from its application.

6. Focus area C: Improving coverage, quality and affordability of digital infrastructure under Chapter 7: Strengthening infrastructure to support economic expansion.

There is also a need to strengthen innovative practices and partnerships between industry and world-class technical players, beginning with priority subsectors, such as electrical and electronics manufacturing.

Other initiatives to encourage the adoption of I4.0 by companies include providing a dedicated fund to promote the types of technologies and associated benefits of I4.0 to enterprises across sectors. The fund should also focus on developing the human capital required for the successful setup and implementation of I4.0 technologies, via programmes to re-skill and up-skill employees. The alignment of existing financial programmes also has to occur, so that the funds are more accessible to wider and diverse type of enterprises in support of this purpose. Sectoral centres of excellence will be established to undertake R&D for I4.0 to drive industry transformation.

The quality of coverage and affordability of digital infrastructure will be improved to support enterprises to adopt new technologies.

N4 INITIATIVE N4
Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology

Malaysian SMEs face significant productivity challenges, and generate lower contributions to GDP compared to larger companies. On top of this, they are more reluctant to use ICT tools in daily business activities[7] or in online business. Hence, this initiative recommends a specific focus on strengthening digitalisation among SMEs. The increased availability of technological infrastructure will increase the ease of mechanisation for enterprises to automate current business models, and potentially enhance their value-adding services.

N4 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology

8 Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology

8 Key Activity 8
Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology

This activity is an immediate priority to ensure that SMEs are well-supported for digitalisation. Firstly, SMEs need to have seamless movement through the entire innovation process under a single platform and supported by technical assistance, market information as well as incubation and testing facilities. This is in line with High Impact Programme (HIP) 2 in the SME Masterplan. Between May 2014 to December 2016, 21 innovations have already been commercialised as part of the HIP 2 Technology Commercialisation Platform.

The establishment of a single window for both business registration and licensing needs to be expedited, in order to reduce regulatory burden and to facilitate targetted interventions. This is in line with HIP 1 in the SME Masterplan, where the information portal for business registration and licensing is being rolled out in stages. Online services need to be integrated based on the readiness of the systems in registration and licensing bodies[8].

Promotion and marketing of e-commerce specifically to SMEs will need to be increased, in collaboration with platform providers. Incentives should be streamlined towards ICT-based business solutions, which drive productivity gain. Finally, support for SMEs to pursue international markets should be intensified, through the e-TRADE platform and strategic market alliances.

7. SME survey.
8. SME Corp Malaysia, Progress in the implementation of the SME Masterplan, Feb 2017.

3

Making Industry Accountable for Productivity

The Blueprint aims to propel Malaysian businesses to be on par with best-in-class countries for productivity practices. To realise this aspiration, it puts forth two cross-cutting initiatives:

- **Initiative N5**: Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes
- **Initiative N6**: Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes

N5 INITIATIVE N5

Gradually reduce the reliance on non-critical subsidies, and ensure liberalisation efforts are linked to productivity outcomes

Over the years, economic liberalisation measures have been announced across various sectors. However, there are still sectors that would benefit from further liberalisation. Core regulations governing key economic sectors must be aligned to liberalisation policies in order to boost productivity and competitiveness. Subsidies which do not suggest productivity improvements must be reduced so that enterprises are less dependent on government assistance. This is in line with the sixth strategic thrust of 'Re-engineering Economic Growth for Greater Prosperity' in the 11MP. By reallocating the financial assistance and subsidies, there will be a visible shift towards a more efficient and independent business ecosystem.

9. Refers to subsidies which are non-critical in improving productivity, such as price subsidies for cooking oil, rice and highway tolls.

The key activities contained within this initiative are:

N5	Gradually reduce the reliance on non-critical subsidies[9], and ensure liberalisation efforts are linked to productivity outcomes
9	Undertake necessary revisions to ensure regulations are aligned with liberalisation policies
10	Develop a schedule for removal of remaining non-critical subsidies

9 Key Activity 9

Undertake necessary revisions to ensure regulations are aligned with liberalisation policies

There is a need to review regulations governing key sectors that have yet to be aligned to liberalisation efforts, dampen productivity performance across economic sectors. Additionally, local companies are still protected from stronger competition, affecting their productivity performance. Thus, the Blueprint proposes periodical reviews of regulations to ensure they are aligned to liberalisation policies.

BOX 3-1

Selected Sector Liberalisation Experiences

Country/Industry	USA, nuclear power	Australia, airports	Europe, railways
			
Approach	48 out of 103 nuclear power plants (NPP) sold to independent utilities Access to power transmission infrastructure not liberalised Tough requirements for NPP operators	13 out of Australia's 19 airports sold to independent operators via competitive bidding rounds Numerous anti-monopoly restrictions	Infrastructure management separated from transport operations Implementation of uniform standards across national railways of different European countries Third-parties given access to infrastructure Introduction of independent regulatory systems
Results	10% business efficiency improvement over 10 years of liberalisation World's biggest number of power producers in one country Highest efficiency metrics	30% business efficiency improvement over 7 years of privatisation Best airports in customer-centric terms	40% business efficiency improvement over 15 years of reforms World's best integrated railway system in length, density, and service quality terms

10 **Key Activity 10**

Develop a schedule for removal of remaining non-critical subsidies

Currently, there are non-critical and untargetted subsidies, such as input-driven subsidies for agriculture, that directly impact the cost of doing business. These subsidies promote over-reliance on government assistance and perpetuate low productivity levels among enterprises. It is proposed that a schedule for removal of remaining non-critical subsidies to boost productivity be implemented.

N6 **INITIATIVE N6**

Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes

It is proposed that assistance and incentive provided by the government be leveraged to drive productivity. All grants, incentives, soft loans and other of assistance provided by the government must be linked to productivity improvement targets.

The key activities contained within this initiative are:

N6	Realign key grants, incentives, soft loans and other funding mechanisms to productivity metrics and outcomes
11	Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans
12	Review existing incentives to reduce/remove non-targetted incentives and align them to programmes with clear targets and outcomes

11 **Key Activity 11**

Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans

Currently, the link between enterprises' productivity performance and the approval and disbursement of any financial assistance is not clear. As a result, government financial assistance programmes have no significant impact on productivity improvements. It is proposed that all assistance provided by the government to enterprise be based on agreed productivity milestones.

It is proposed that the disbursement of incentives be aligned with increase in productivity of recipients, with further funding pending the meeting of key performance milestones.

Additionally, there has been limited tracking and monitoring of recipient performance post-disbursement, which has resulted in insufficient monitoring to ensure funds are channelled towards approved project plans. The current focus is on the repayment of loans, with little emphasis on the actual productivity increase generated. It is recommended that the government embed a self-tracking culture across enterprises by enforcing continuous monitoring of productivity improvements. This initiative would require the scheduled reporting of financial and productivity data from fund recipients, highlighting progress and flagging issues.

12 **Key Activity 12**

Review existing incentives to reduce/remove non-targetted incentives and align them to programmes with clear targets and outcomes

The Blueprint strongly advocates for a comprehensive review of the existing incentive structure to determine incentives that are not targetted and align incentives to programmes with clear targets and outcomes. This will entail the alignment of promoted industrial activities with sector-level productivity strategies.

The Blueprint also recommends that exit policies be established for all types of incentives.

4

Forging a Robust Ecosystem

The Blueprint aims to strengthen regulatory governance to improve the competitiveness of enterprises in Malaysia. This would require the implementation of clear and effective regulation across multiple government ministries and agencies across the nation. A robust ecosystem is critical to improve the efficiency, adaptability and accountability of governance systems in supporting enterprises to increase their productivity. This thrust will further strengthen the business environment to improve productivity growth through two national-level initiatives:

- **Initiative N7**: Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints
- **Initiative N8**: Establish an accountability mechanism for the implementation of regulatory reviews by the government

N7 INITIATIVE N7
Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints

Initiative N7 aims to strengthen the development and utilisation of Good Regulatory Practices (GRP) across government agencies. This will help increase investments and foster inclusive growth, societal well-being and public trust. The initiative also proposes continuous review of prohibitive regulations to promote a business-friendly regulatory environment and accommodate technological and innovative disruptions.

Initiative N7 is aligned with the 11MP's aspiration to 'Transform Public Service for Productivity'[10]. Further streamlining and refining of regulations to ensure consistency across federal and state governments will greatly reduce the complexity of setting up and running businesses in Malaysia. This initiative is also aligned to the 'Modernising Business Regulations' programme taken by the Malaysia Productivity Corporation (MPC) and the Special Task Force on Service Delivery (PEMUDAH), which aims to improve the quality of existing regulations.

The activity contained within this initiative is:

N7	Accelerate efforts to enhance whole-of-government approach towards addressing regulatory constraints
13	Remove non-tariff measures that impede business growth and improve efficiency of the logistics sector

10. Chapter 9: Transforming public service for productivity.

13

Key Activity 13

Remove non-tariff measures that impede business growth and improve efficiency of the logistics sector

Currently, there is a lack of consistency in export and import licensing, permit and approval processes. Most large Multinational Corporations (MNCs) have identified the different processes and systems as a key barrier impeding productivity growth. Malaysia's Logistics Performance Index has declined from 25th position in 2015 to 32nd globally in 2016. The Blueprint recommends the restructuring of non-tariff measures, including customs regulations, to ensure streamlined processes and regulations for export and import permits and regulations.

The existing custom processes require high levels of manual input, with gate releases still requiring a hardcopy of declaration, despite prior receipt of online approval. The delivery of the uCustoms platform has been delayed. The key challenges faced in the uCustoms implementation have been the lack of alignment on regulations and processes to be streamlined across ministries, and initial IT specifications not meeting the requirements. The Blueprint recommends the accelerated implementation of uCustoms to improve logistics and trade facilitation. Alignment with key ministries and agencies has to be obtained for export and import licensing, permit and approvals. Better project management and a reporting mechanism are necessary to ensure the uCustoms is on track for launch and rollout.

The guillotine approach requires each ministry to list business regulations within their purview, and highlight regulations that are no longer relevant or justified. Over time, these obsolete regulations would then be rescinded. However, at present, this approach only applies to the 'Modernising Business Licensing' programme, with potentially limited gains in reform. The Blueprint recommends expanding the guillotine approach for all areas and sectors and fixing a schedule for its implementation, based on the relative importance. A review of all business regulations is also neccessary, specifically focusing on cross-agency and cross-ministerial regulations.

Channels of communication between industry disruptors, such as Grab and Uber, and government regulators should be further structured, with a need for increased consultation to review the applicability of new and existing policies. The Blueprint proposes to establish and institutionalise an innovative engagement mechanism to promote greater and structured private sector involvement in policy-making, which complements ongoing efforts.

BOX 3-2

THE GUILLOTINE APPROACH USED WIDELY AROUND THE WORLD TO RAPIDLY STREAMLINE REGULATIONS

A top-down approach for regulatory review

Government to rapidly and systematically review large numbers of regulations at low administrative and political cost

- Licences that do not meet legislative justification are abolished
- Requirements that are not business friendly are simplified

Guillotine avoids reform weaknesses of traditional bottom-up approach

- No selection bias
- Burden of proof is reversed in favour of reform
- Review is fast and final decision is taken collectively, without need for individual decisions

An example process of guillotine approach

Stock take of all regulations or formalities affecting businesses by the government

Each rule or formality is reviewed three times by;

- Civil servants
- Business stakeholders
- The central guillotine unit[1]

After review, each rule or formality is placed into one of three categories: maintain, simplify or eliminate

The Council of Ministers and Parliament, by an omnibus process, eliminate unneeded regulations and simplify regulations that are too complex

Successful implementation observed across the world

Mexico used the guillotine in the 1990s to eliminate 47% of government formalities and create its famous Federal Registry of Formalities and Services

As part of its economic recovery after the financial crisis of 1997, **South Korea** used the guillotine to review 11,000 business regulations and eliminate 50% of them in less than a year

In **China**, before its accession to WTO, it eliminated over 8,000 regulations that were not compatible with WTO rules

Moldova adopted the regulatory guillotine by law in January 2005 to review over 1,000 regulations; eliminated 45% of them and simplified 13% in 4 months

1. Examples include Comisión Federal de Mejora Regulatoria (COFEMER), Mexico and Presidential Commission on Regulatory Reform (South Korea).

Source: World Bank, Press search.

BOX 3-3

GOVERNMENT-FUNDED LABS ESTABLISHED AS A PLATFORM TO DRIVE USER ENGAGEMENT AND INNOVATE PUBLIC POLICIES

	MindLab	GovLab
Description	• Cross-governmental innovation unit, which involves citizens and businesses in developing new solutions for the public sector • Supports government in 3 ways: - **"Laboratory"**: Experimental and user participatory approaches through partnerships and workshops - **"Think Tank"**: Conduct research and analysis for government - **"Inspirator"**: Seminars, courses, presentations, training and development	• Think tank in the federal practice that focuses on innovation in the public sector • Fellows conduct research into key issues and emerging ideas shaping the public, private and non-profit sectors
Areas of focus	• Service design, customer insight, user experience, innovation	• Regulation, innovation, welfare, social media
Select programmes	• Innovation Lab	• Centre for Federation Innovation
Location	• Copenhagen, Denmark	• London, United Kingdom

INITIATIVE N8
Establish an accountability mechanism for the implementation of regulatory reviews by the government

Presently, a lack of coordination and accountable implementation is hampering governance reforms. Malaysia's Regulatory Quality Index lags behind benchmark countries, despite systematic regulatory reform effort. Initiative N8 aims to implement an integrated governance reform to modernise regulatory regimes and drive productivity improvements through the effective enforcement of regulations and policies.

The key activities contained within this initiative are:

N8	Establish an accountability mechanism for the implementation of regulatory reviews by the government
14	Strengthen the regulatory portal and mechanism to track regulatory review implementation
15	Establish state-level benchmarking indicators for businesses

14 Key Activity 14
Strengthen the regulatory portal and mechanism to track regulatory review implementation

The MPC is tasked to bring changes to the regulatory environment in government, culminating with the introduction of the National Policy on the Development and Implementation of Regulations (NPDIR). The portal for Regulatory Review Management System has been set up to track the implementation of the regulatory reviews.

To improve the implementation of regulatory reviews, the Blueprint seeks to strengthen the mechanism to track the progress of the NPDIR by among others, setting clear milestones and KPIs. This portal will also provide an easy access to the complete set of regulations governing industries at state and local levels, especially updates on regulatory changes that can be shared swiftly across sectors.

15 Key Activity 15
Establish state-level benchmarking indicators for businesses

There are also concerns over the limited visibility of the regulatory burden across states and local governments. The World Bank's Ease of Doing Business data for Malaysia is limited to Kuala Lumpur, clearly illustrating the information gap between regions. The Blueprint recommends establishing a set of state-level benchmarking indicators to measure the Ease of Doing Business, through collaboration with state governments.

BOX 3-4

MEXICO PUBLISHED COMPARATIVE DATA ON THE EASE OF DOING BUSINESS ACROSS STATES

Background and Context

Ease of Doing Business indicators did not reflect reality beyond Mexico City

- Limited visibility on reality in 31 states and 100 million people

In 2005, Comisión Federal de Mejora Regulatoria (COFEMER) collaborated with The United States Agency for International Development (USAID) to develop sub-national benchmarks

- 12 states as benchmarks identified
- 4 indicators selected- starting a business, registering property, getting credit, and enforcing contracts

Findings launched at national conference in Mexico City

- Specific reform initiatives and good practices shared at two nationwide conferences

Key outcomes

Findings received wide media coverage

Wide range of reform initiatives spurred across the country, including

- Various Public-private taskforces established at state level
- Non-participating state governments lobbied to be benchmarked

Significant progress observed, in just over one year

- 9 of 12 states reformed in at least one area covered in report

Lessons learned

Bringing a global benchmark to the local level empowers reformers

- Improved visibility on measure of competitiveness

Sharing easily replicated best practices creates positive dynamic of reform

- Excuses for differences in state-level performance eliminated, with shared federal laws

Strong local partners and local ownership from benchmarked states

- Opens dialogue between federal and state government
- Involvement at state level

Avoiding the traps of political partisanship

- Political alignment on improving investment climate

Securing a Strong Implementation Mechanism

This thrust will embed the culture of productivity in a nationwide movement, and will drive accountability in productivity performance through two key initiatives:

- **Initiative N9**: Institutionalise a strong coordination and governance model to secure implementation certainty across government, sector, and enterprise levels
- **Initiative N10**: Launch nationwide productivity movement to inculcate a stronger culture of productivity across all segments of society

The key objective of this thrust is to build a shared sense of responsibility amongst all stakeholders to improve Malaysia's productivity levels, ensuring a strong implementation mechanism to deliver and achieve the Blueprint's targets.

Uncoordinated efforts among multiple government entities and limited involvement from the private sector in driving productivity initiatives are the key challenges hindering the implementation of productivity efforts.

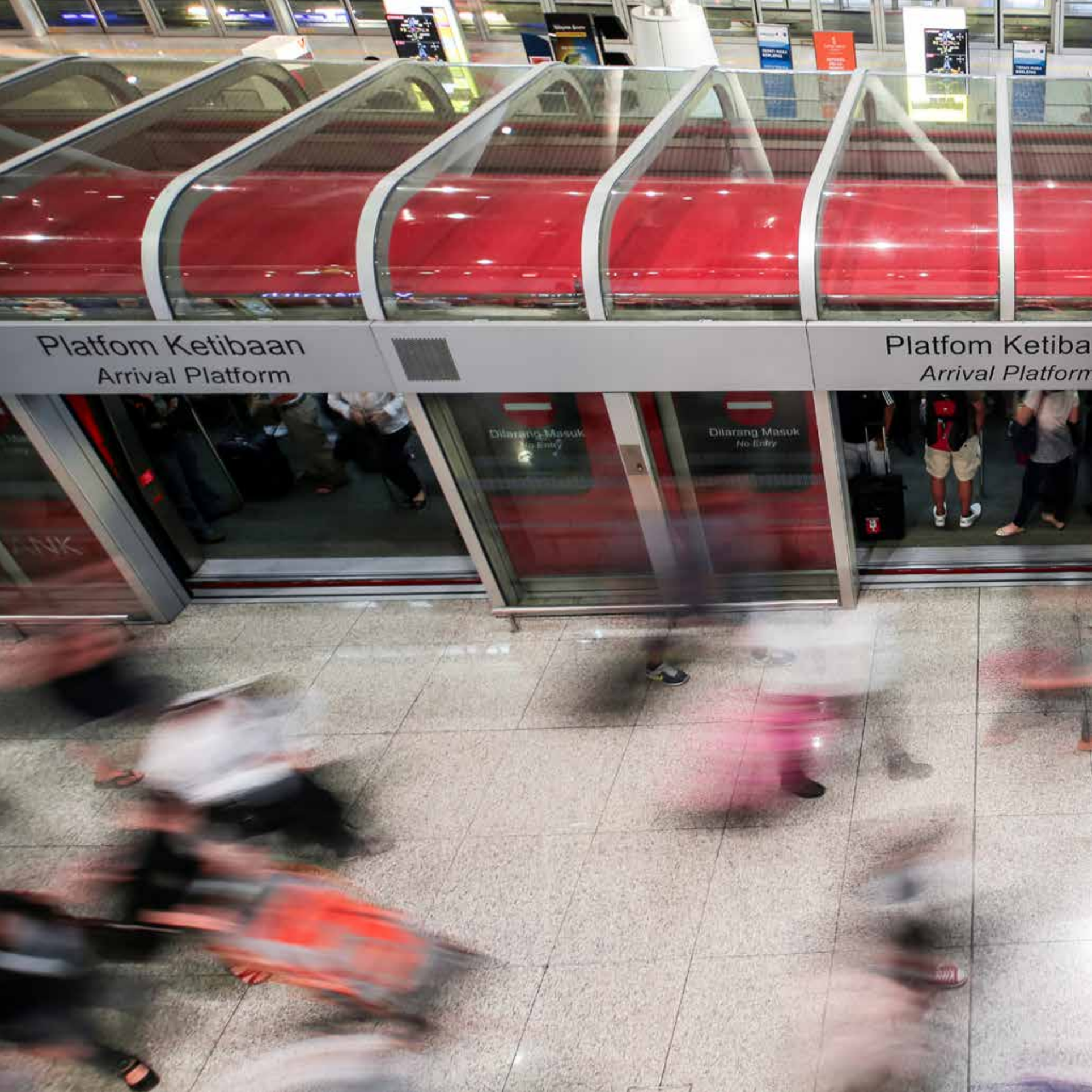
In addressing these challenges, a governance model encompassing strategic oversight, advisory, coordination and monitoring as well as implementation has been developed (see Chapter 6).

The implementation of the six immediate priorities has the potential to uplift labour productivity growth between one and four percentage points, conditional upon their full implementation with accountability and ownership. The growth estimate is based on the experience of the benchmark countries that have embarked on similar initiatives (see Figure 3-6).

Figure 3-6 PRODUCTIVITY IMPROVEMENTS IN BENCHMARK COUNTRIES

MALAYSIA PRODUCTIVITY BLUEPRINT		UPLIFT IN NATIONAL PRODUCTIVITY BY COUNTRY BENCHMARKS				
Strategic Thrusts	Immediate Priorities	Japan	Germany	Singapore	Australia	Finland
BUILDING WORKFORCE OF THE FUTURE	Restructure and improve the management of foreign workers		Reforms in the hiring of seasonal foreign workers (e.g., employers to submit proof that locals could not be hired)	Different quota, levies and restrictions are used to restrict foreign labour entry	Establish a workforce agency to advise government on workforce development needs	Provide training for migrants on ICT and vocational skills
DRIVING DIGITALISATION AND INNOVATION	Actively encourage adoption of 4th Industry Revolution technologies by companies across main economic sectors Strengthen digitalisation among SMEs through e-commerce and adoption of innovative technology	Launched a 5-year initiative to deepen the use of robotics in all sectors	4th Industry Revolution reduced manufacturing cost approximately 5%-8%, while retail and F&B by 9%-12%	Established Centre of Innovation to help SMEs enhance technology innovation capabilities		
MAKING INDUSTRY ACCOUNTABLE FOR PRODUCTIVITY	Embed productivity targets for enterprises into disbursement processes of new grants, incentives and soft loans	Japan Productivity Centre (JPC) tracked productivity performance of sectors and linked it to initiatives		Construction Productivity and Capability Fund aligned incentives to productivity strategies		
FORGING A ROBUST ECOSYSTEM	Remove non-tariff measures that impede business growth and improve the efficiency of the logistics sector	Established special zone with regulatory exception to speed up nationwide reform	Comprehensive regulatory reform bundle (e.g., Hartz Labour and pension reform)		Reducing red tape to ease burden on businesses	Reduction in product regulatory constraints have increased productivity
SECURING A STRONG IMPLEMENTATION MECHANISM	Evolve governance model to drive game changing implementation of Malaysia Productivity Blueprint	Established JPC, a non-profit non-governmental organisation, dedicated to promote productivity		Established National Productivity Council, which include representatives from government, businesses and unions	Established an independent Australian Productivity Commission under the Treasury that conducts research related to productivity for the whole economy	
NET GAIN IN LABOUR PRODUCTIVITY[1]		1.5%-1.7%	3.0%-3.5%	2.0%-4.0%	1.7%-1.9%	1.0%-1.5%

1. Net gain in the labour productivity is the difference in CAGR during the time period before the initiatives were launched to after initiatives were completed.


Platfom Ketibaan
Arrival Platform
Platfom Ketiba
Arrival Platform
Dilarang Masuk
No Entry
Dilarang Masuk
No Entry

PRODUCTIVITY HELPS YOU STAY RELEVANT IN A FAST CHANGING JOB MARKET

Employers value employees who innovate and seek ways to do things more efficiently and effectively

04

SECTOR-LEVEL INITIATIVES

As there is a wide variation in challenges for different sectors and industries, additional sector-specific initiatives are critical for productivity improvement. This chapter outlines the sector-level challenges and initiatives for nine priority subsectors. Sector-specific initiatives are proposed, including the setting up of sector Productivity Nexus to drive the implementation of the initiatives in close partnership with the government. A detailed discussion of three deep-dive subsectors is also presented.

9 priority subsectors are identified and they collectively contribute to 30% of Malaysia's GDP, and 40% of total employment.

In the previous chapter, 10 national-level initiatives were presented that correspond to the 5 strategic thrusts. However, it is important to acknowledge the wide variation in challenges for different sectors and industries, and as such, additional sector-specific initiatives are critical for productivity improvement.

9 priority subsectors are identified: retail and food & beverages (F&B)[1]; electrical and electronics (E&E); chemicals and chemical products; agro-food; professional services; tourism; information, communication and technology (ICT); machinery and equipment; and private healthcare. Combined, the 9 priority subsectors selected contribute 30% of Malaysia's gross domestic product (GDP) and 40% of total employment. These subsectors are prioritised based on the following criteria:

- Contribution to GDP
- Share of workforce
- Opportunity for productivity improvement
- High multiplier effect
- Readiness to implement productivity improvement

For each priority subsector, two workshops and various one-on-one engagements with stakeholders were conducted to identify the challenges that each subsector faced and validate the proposed sector-specific initiatives.

From these subsectors, 3 are selected as deep-dive subsectors: retail and F&B, agro-food, and chemicals and chemical products. They are selected based on the following criteria:

- Significant size and highly visible
- Underperformed productivity growth with large gaps when compared to the best-in-class sector benchmarks
- Strong stakeholder support
- Potential for quick-to-impact results

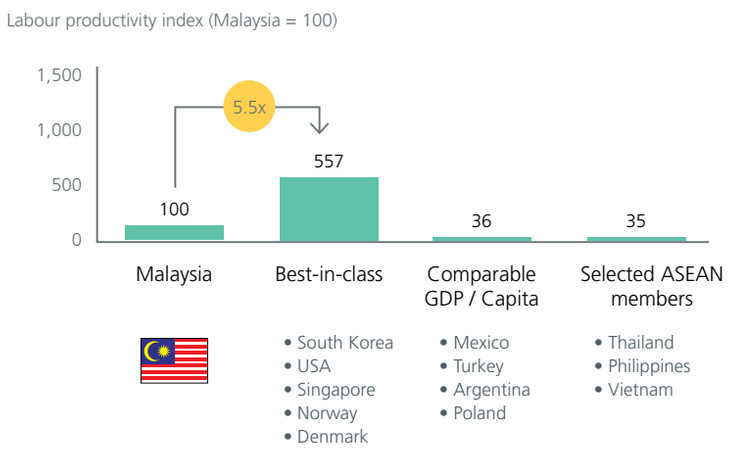
1. Due to their many similarities, the retail and food and beverages (F&B) within the services sector are analysed jointly.

Figure 4-1

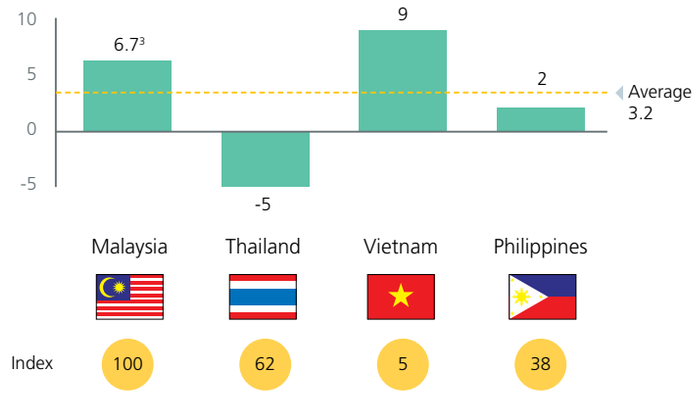
ELECTRICAL AND ELECTRONICS (E&E)[1]

Gross Value Add (RM bn), 2015	57.1	Labour Productivity (RM '000), 2015	125	11MP Labour Productivity Target (% p.a.)[2]	2.6
Total Employment ('000), 2015	457	Labour Productivity (% p.a.), 2011-2015	6.7	Growth Surplus / Shortfall (% p.p.)	4.1

Labour productivity lags best-in-class average by 5.5x



Productivity growth is lagging behind Vietnam



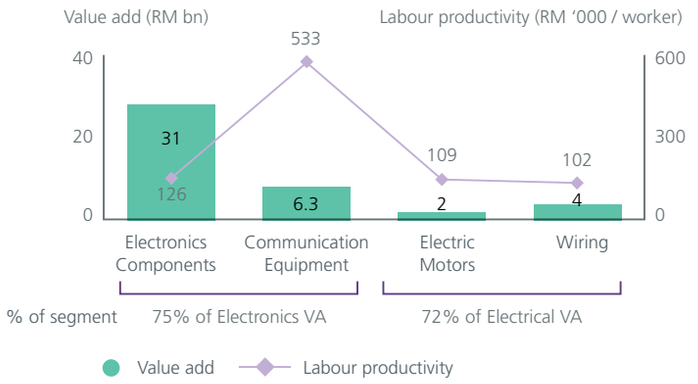
E&E SUBSECTORS

Electronics	Electrical
Computer & Peripherals	Electric Motors & Generators
Electronic Components & Board	Domestic Appliances
Communication Equipment	Wiring
Consumer Electronics	Lighting & Others

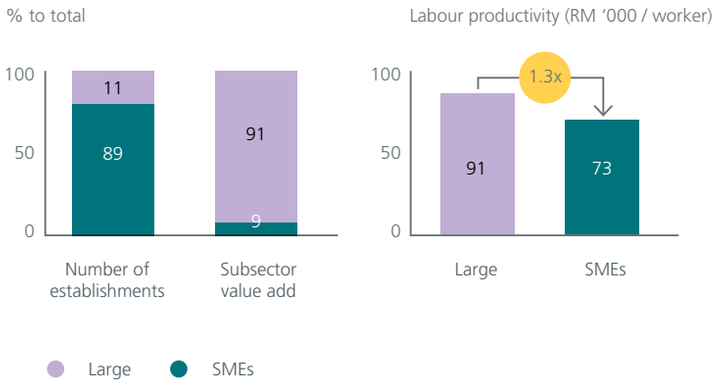
SUBSECTOR COMPOSITION

2011 Census	Large	SMEs
Number of Establishments ('000)	0.3	1.0
Average Value Add (RM mn)	99.5	3
Number of Employees ('000)	363	43
Labour Productivity (RM '000)	91	73

Communication Equipment is the most productive and value adding subsector



Many small players but contribute less value add



1.Value add and labour productivity at 2010 Prices. 2. Manufacturing labour productivity growth target in 11MP. 3. 2011-2015 period.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, and International Labour Organisation.

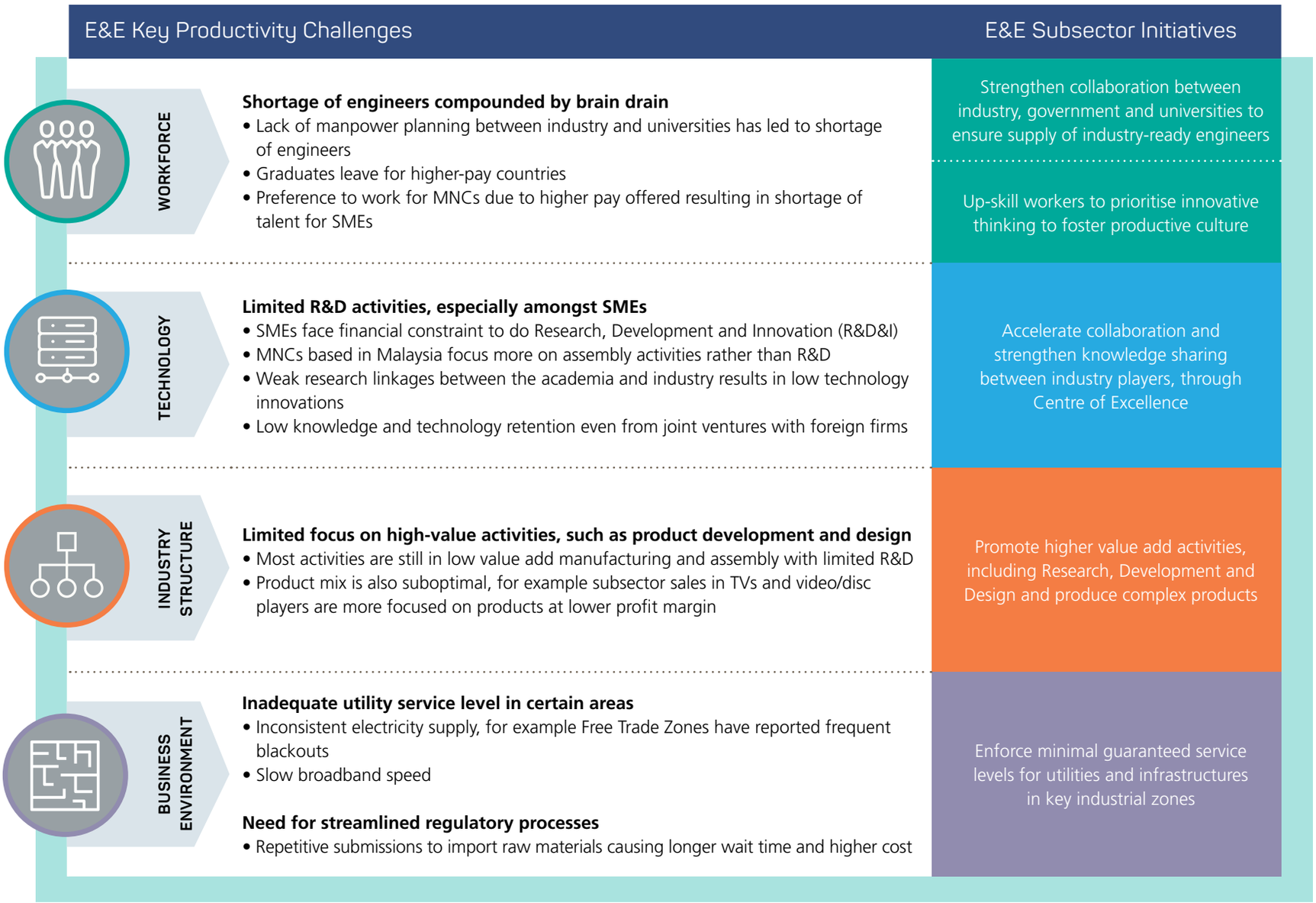
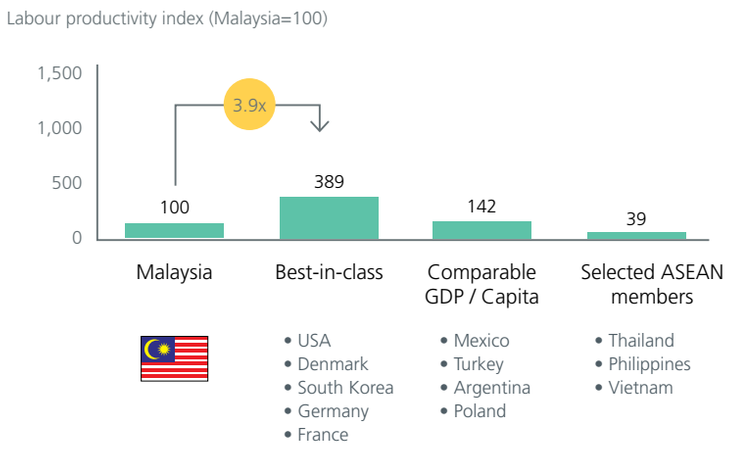

E&E Key Productivity Challenges
E&E Subsector Initiatives
WORKFORCE
Shortage of engineers compounded by brain drain
• Lack of manpower planning between industry and universities has led to shortage of engineers
• Graduates leave for higher-pay countries
• Preference to work for MNCs due to higher pay offered resulting in shortage of talent for SMEs
Strengthen collaboration between industry, government and universities to ensure supply of industry-ready engineers
Up-skill workers to prioritise innovative thinking to foster productive culture
TECHNOLOGY
Limited R&D activities, especially amongst SMEs
• SMEs face financial constraint to do Research, Development and Innovation (R&D&I)
• MNCs based in Malaysia focus more on assembly activities rather than R&D
• Weak research linkages between the academia and industry results in low technology innovations
• Low knowledge and technology retention even from joint ventures with foreign firms
Accelerate collaboration and strengthen knowledge sharing between industry players, through Centre of Excellence
INDUSTRY STRUCTURE
Limited focus on high-value activities, such as product development and design
• Most activities are still in low value add manufacturing and assembly with limited R&D
• Product mix is also suboptimal, for example subsector sales in TVs and video/disc players are more focused on products at lower profit margin
Promote higher value add activities, including Research, Development and Design and produce complex products
BUSINESS ENVIRONMENT
Inadequate utility service level in certain areas
• Inconsistent electricity supply, for example Free Trade Zones have reported frequent blackouts
• Slow broadband speed
Need for streamlined regulatory processes
• Repetitive submissions to import raw materials causing longer wait time and higher cost
Enforce minimal guaranteed service levels for utilities and infrastructures in key industrial zones

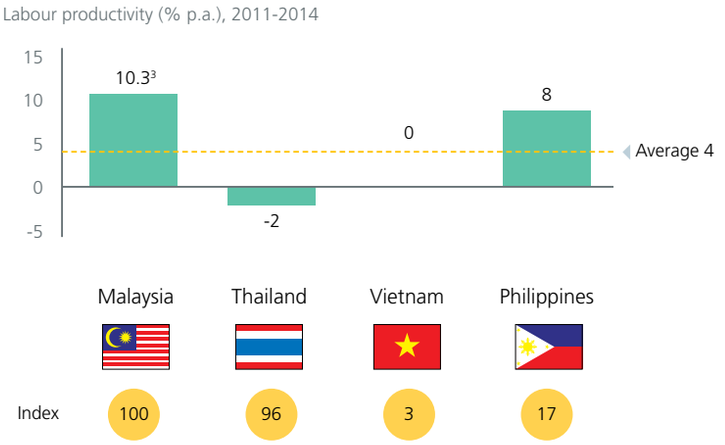
Figure 4-2 MACHINERY AND EQUIPMENT (M&E)[1]

Gross Value Add (RM bn), 2015	7.2	Labour Productivity (RM'000), 2015	113	11MP Labour Productivity Target (% p.a.)[2]	2.6
Total Employment ('000), 2015	50	Labour Productivity (% p.a.), 2011-2015	10.3	Growth Surplus / Shortfall (% p.p.)	7.7

Labour productivity lags best-in-class average by 4x



Above average growth but lags behind Philippines



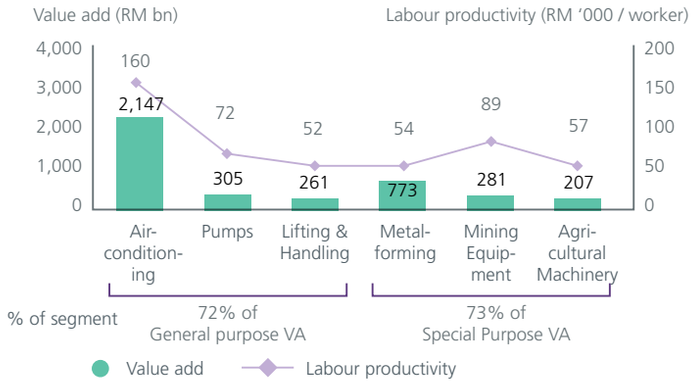
M&E SUBSECTORS

General Purpose	Special Purpose
Air-conditioning Machines	Metal-forming Machinery
Compressors and Pumps	Mining and Quarry Machinery
Lifting and Handling Equipments	Agricultural Machinery

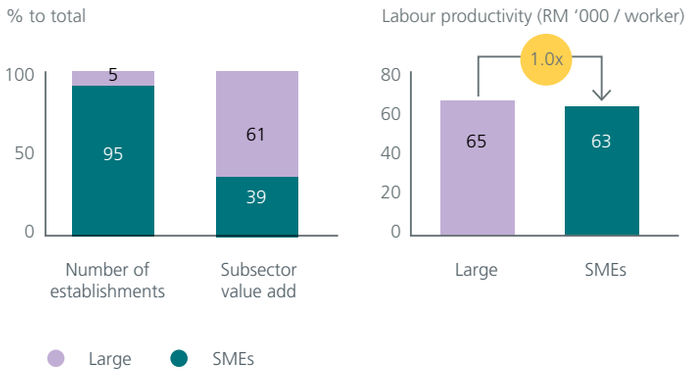
SUBSECTOR COMPOSITION

2011 Census	Large	SMEs
Number of Establishment	70	1,222
Average Value Add (RM mn)	46.2	1.8
Number of Employees ('000)	52	33
Labour Productivity (RM '000)	63	65

Air-conditioning has highest value add and highest productivity level



SMEs are 1.4x less productive than large companies



1.Value add and labour productivity at 2010 Prices. 2. Manufacturing labour productivity growth target in 11MP. 3. 2011-2015 period Note: Historical labour extrapolated for Thailand, Philippines and Vietnam where not available, based on trend.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, and International Labour Organisation.

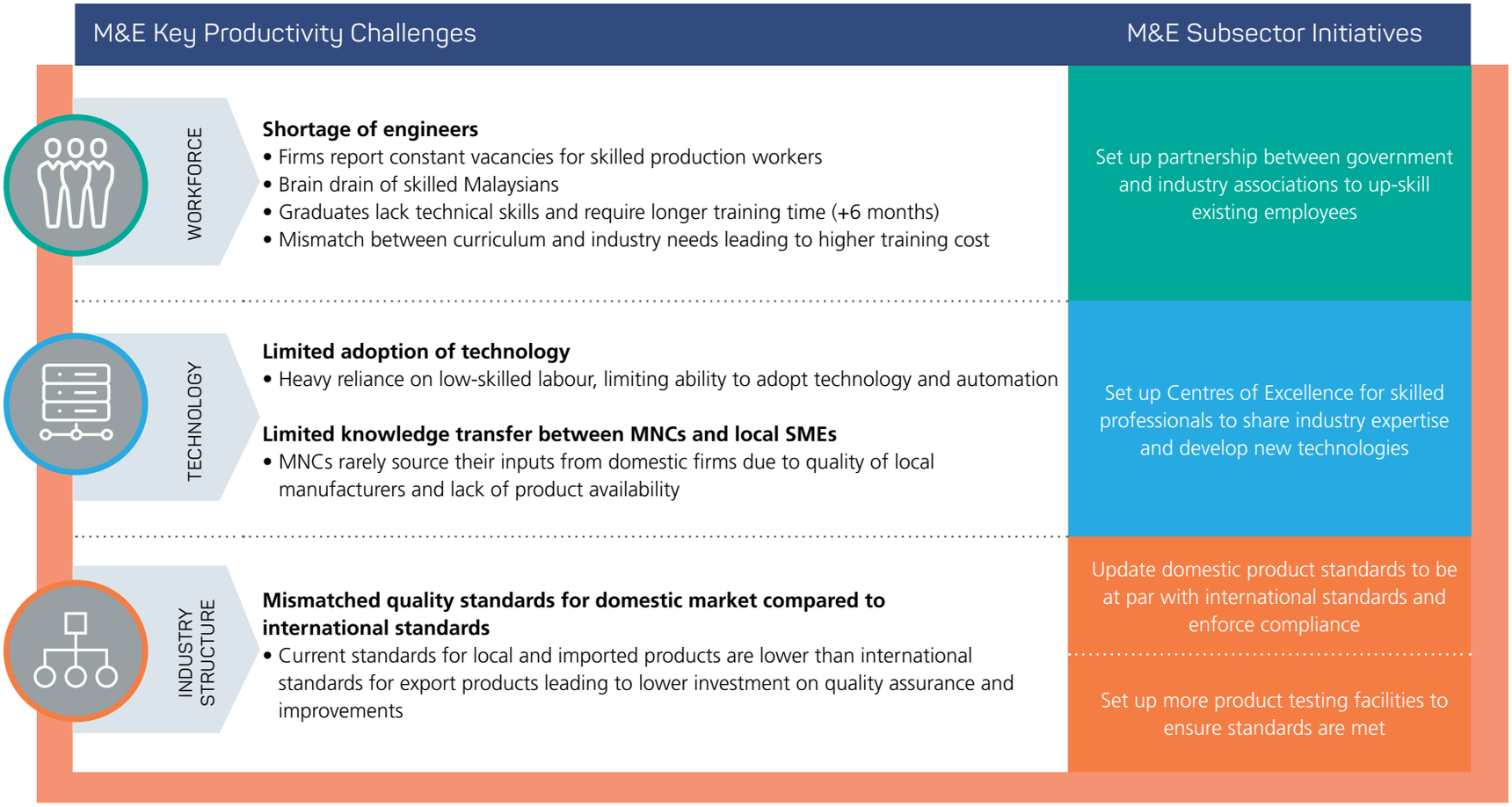
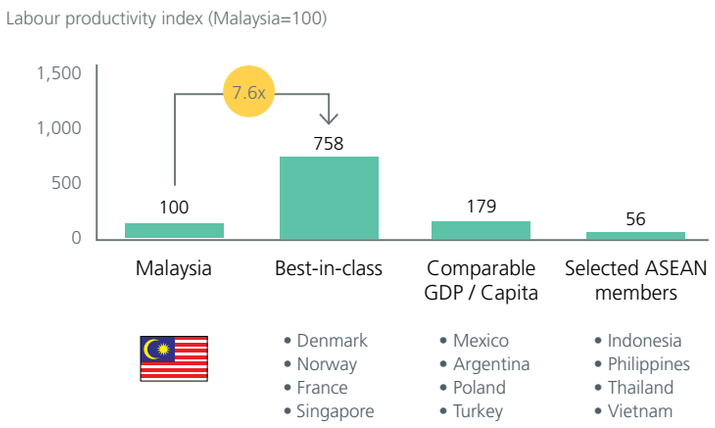

M&E Key Productivity Challenges
M&E Subsector Initiatives
WORKFORCE
Shortage of engineers
• Firms report constant vacancies for skilled production workers
• Brain drain of skilled Malaysians
• Graduates lack technical skills and require longer training time (+6 months)
• Mismatch between curriculum and industry needs leading to higher training cost
Set up partnership between government and industry associations to up-skill existing employees
TECHNOLOGY
Limited adoption of technology
• Heavy reliance on low-skilled labour, limiting ability to adopt technology and automation
Limited knowledge transfer between MNCs and local SMEs
• MNCs rarely source their inputs from domestic firms due to quality of local manufacturers and lack of product availability
Set up Centres of Excellence for skilled professionals to share industry expertise and develop new technologies
INDUSTRY STRUCTURE
Mismatched quality standards for domestic market compared to international standards
• Current standards for local and imported products are lower than international standards for export products leading to lower investment on quality assurance and improvements
Update domestic product standards to be at par with international standards and enforce compliance
Set up more product testing facilities to ensure standards are met

Figure 4-3

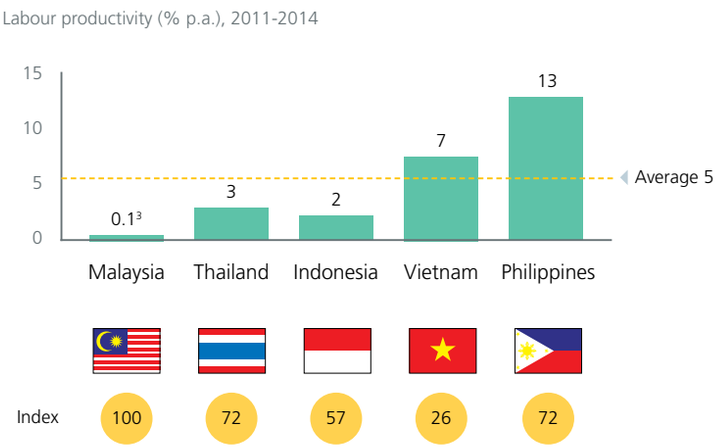
PRIVATE HEALTHCARE[1]

Gross Value Add (RM bn), 2015	6.8	Labour Productivity (RM'000), 2015	68	11MP Labour Productivity Target (% p.a.)[2]	4.1
Total Employment ('000), 2015	103	Labour Productivity (% p.a.), 2011-2015	0.1	Growth Surplus / Shortfall (% p.p.)	-4.2

Labour productivity lags best-in-class average by 7.6x



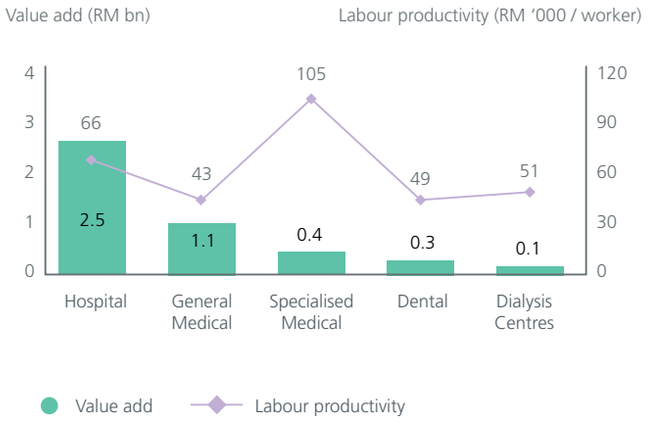
Malaysia's growth is below selected ASEAN members average



PRIVATE HEALTHCARE SUBSECTORS

Health Services	Residential Care Activities	Social Work

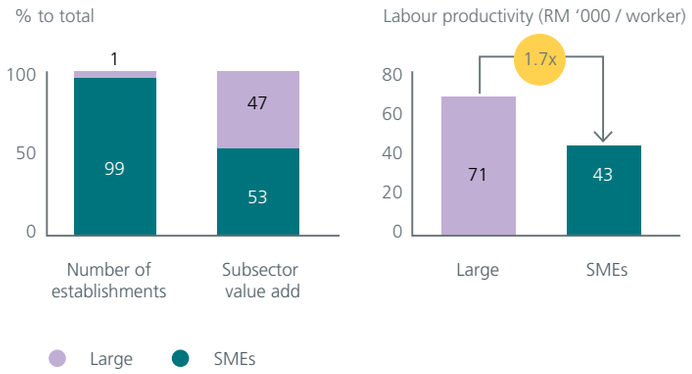
Specialised medicine has highest productivity within health services



SUBSECTOR COMPOSITION

2011 Census	Large	SMEs
Number of Establishments ('000)	0.1	9
Average Value Add (RM mn)	32.8	0.3
Number of Employees ('000)	32	58
Labour Productivity (RM'000)	71	43

SMEs are as productive as large companies



1. Value add and labour productivity at 2010 Prices. 2. Services labour productivity growth target in 11MP. 3. 2011-2015 period.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, and International Labour Organisation.

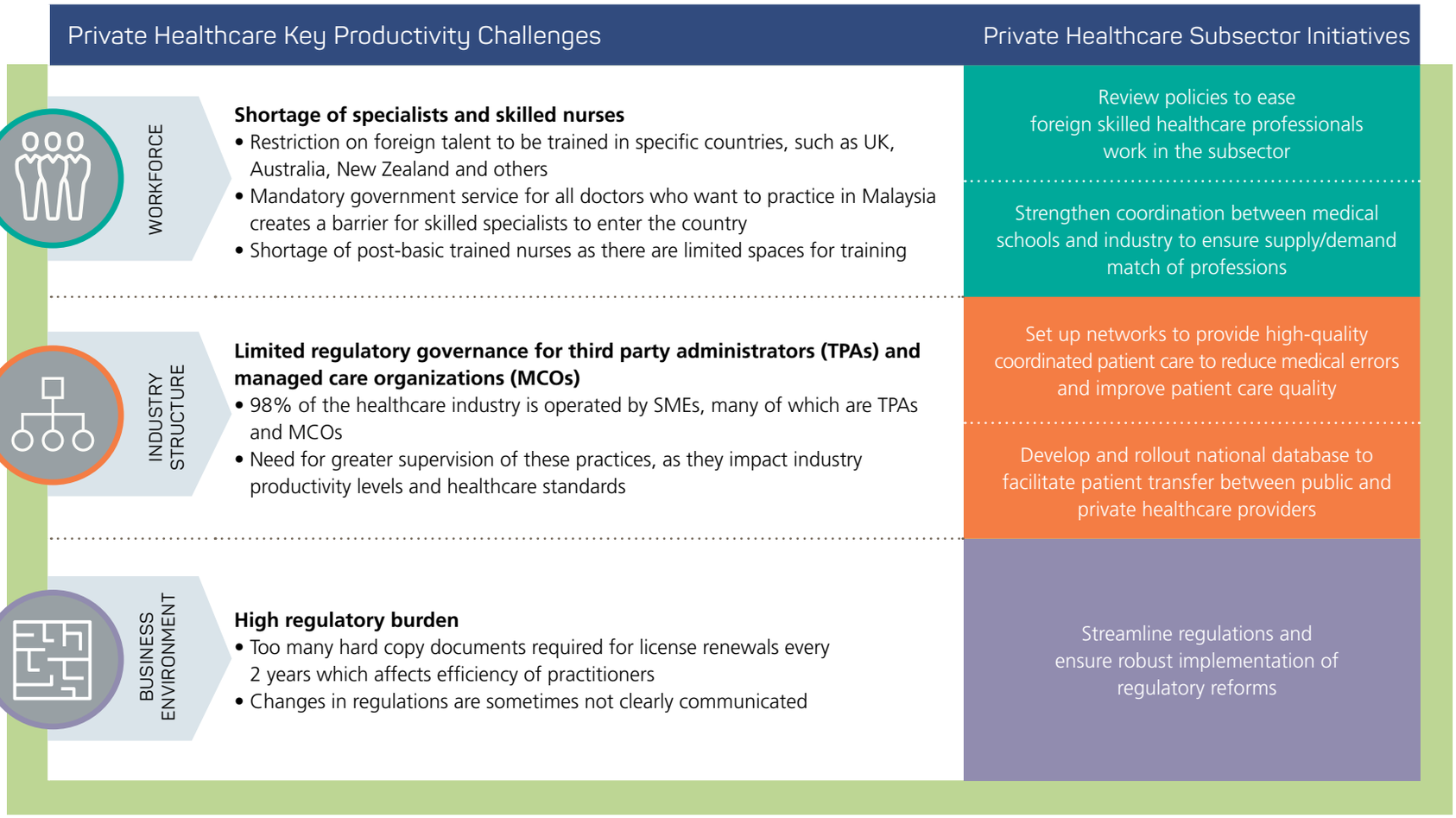
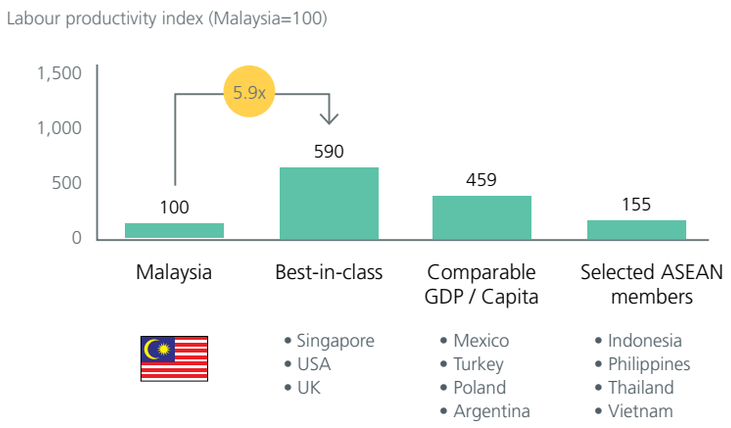

Private Healthcare Key Productivity Challenges
Private Healthcare Subsector Initiatives
WORKFORCE
Shortage of specialists and skilled nurses
• Restriction on foreign talent to be trained in specific countries, such as UK, Australia, New Zealand and others
• Mandatory government service for all doctors who want to practice in Malaysia creates a barrier for skilled specialists to enter the country
• Shortage of post-basic trained nurses as there are limited spaces for training
Review policies to ease foreign skilled healthcare professionals work in the subsector
Strengthen coordination between medical schools and industry to ensure supply/demand match of professions
INDUSTRY STRUCTURE
Limited regulatory governance for third party administrators (TPAs) and managed care organizations (MCOs)
• 98% of the healthcare industry is operated by SMEs, many of which are TPAs and MCOs
• Need for greater supervision of these practices, as they impact industry productivity levels and healthcare standards
Set up networks to provide high-quality coordinated patient care to reduce medical errors and improve patient care quality
Develop and rollout national database to facilitate patient transfer between public and private healthcare providers
BUSINESS ENVIRONMENT
High regulatory burden
• Too many hard copy documents required for license renewals every 2 years which affects efficiency of practitioners
• Changes in regulations are sometimes not clearly communicated
Streamline regulations and ensure robust implementation of regulatory reforms

Figure 4-4

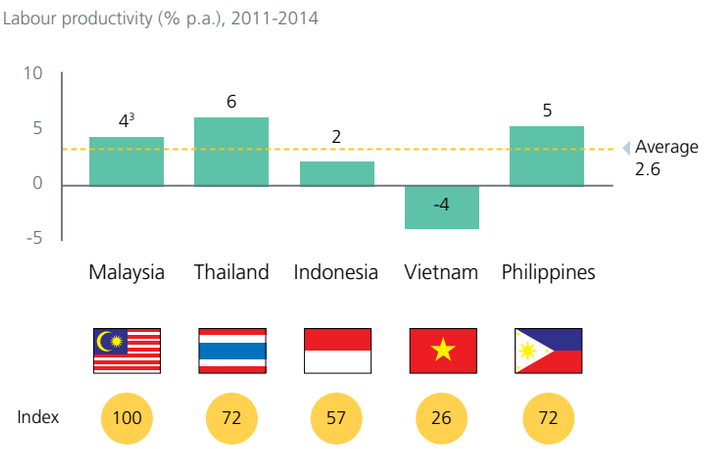
PROFESSIONAL SERVICES[1]

Gross Value Add (RM bn), 2015	20.8	Labour Productivity (RM'000), 2015	58	11MP Labour Productivity Target (% p.a.)[2]	4.1
Total Employment ('000), 2015	359	Labour Productivity (% p.a.), 2011-2015	4.0	Growth Surplus / Shortfall (% p.p.)	-0.1

Labour productivity lags best-in-class average by 6x



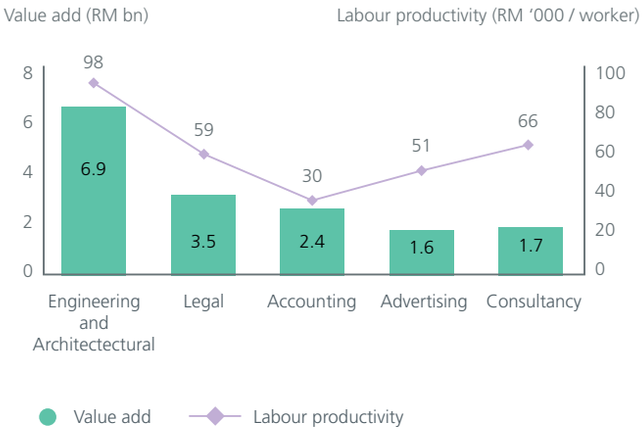
Malaysia leads selected ASEAN members on professional services productivity growth



SELECTED SUBSECTORS IN PROFESSIONAL SERVICES

Engineering	Advertising
Legal	Architectural
Accounting	Consultancy

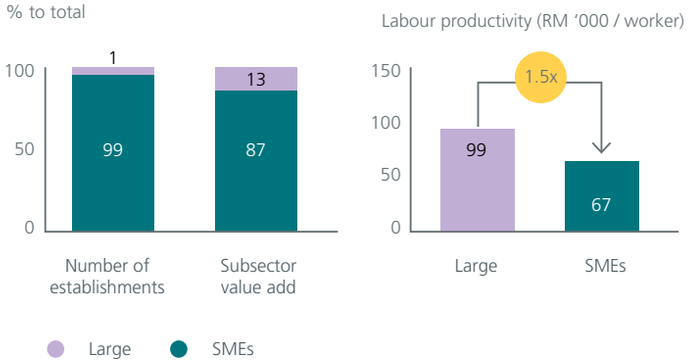
Advertising and Engineering have the highest productivity levels



SUBSECTOR COMPOSITION

2011 Census	Large	SMEs
Number of Establishments ('000)	0.1	19
Average Value Add (RM mn)	18.6	0.5
Number of Employees ('000)	22	143
Labour Productivity (RM'000)	99	67

Large companies are 1.5x more productive than SMEs



1.Value add and labour productivity at 2010 Prices. 2. Services labour productivity growth target in 11MP. 3. 2011-2015 period.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, and International Labour Organisation.

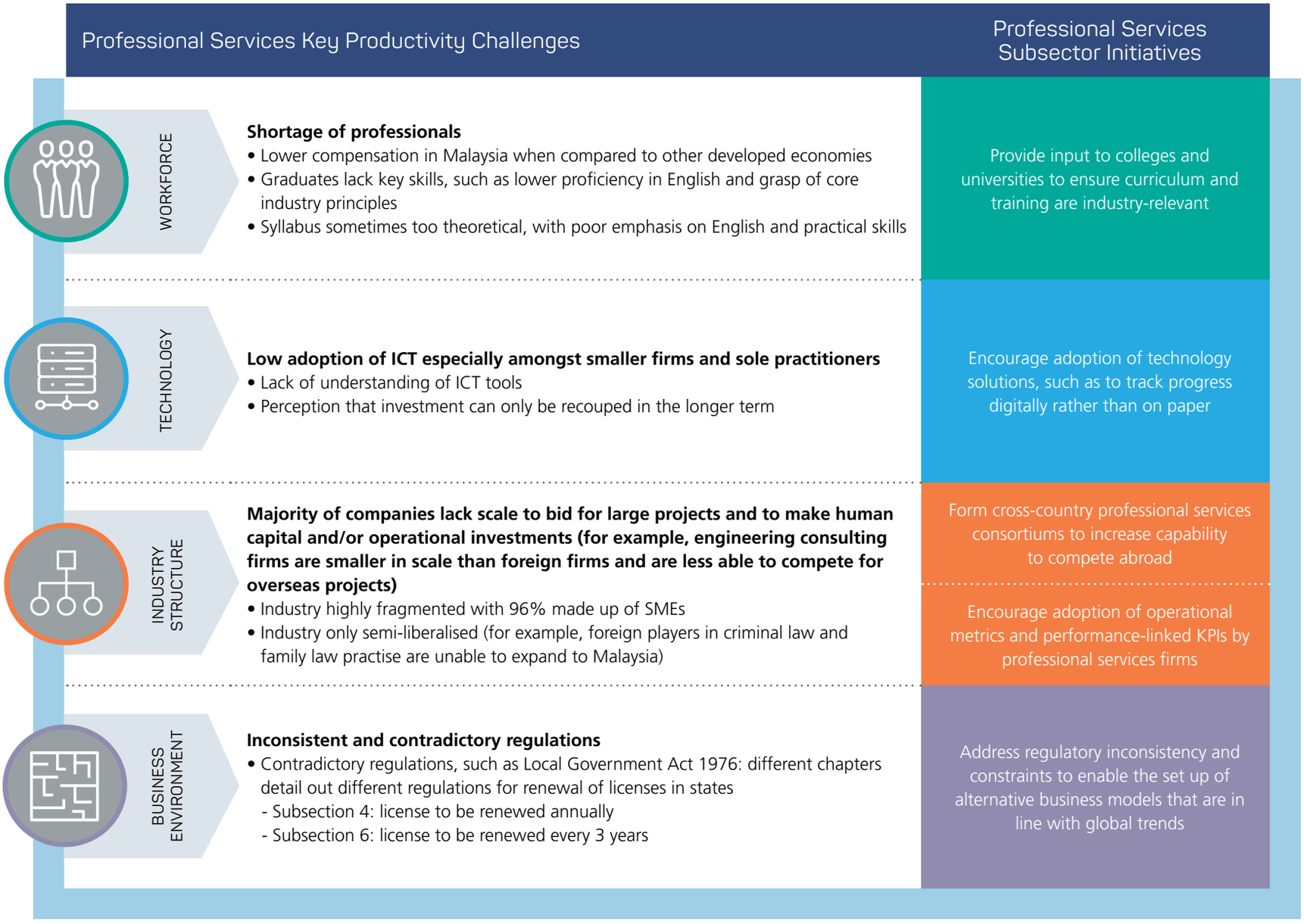
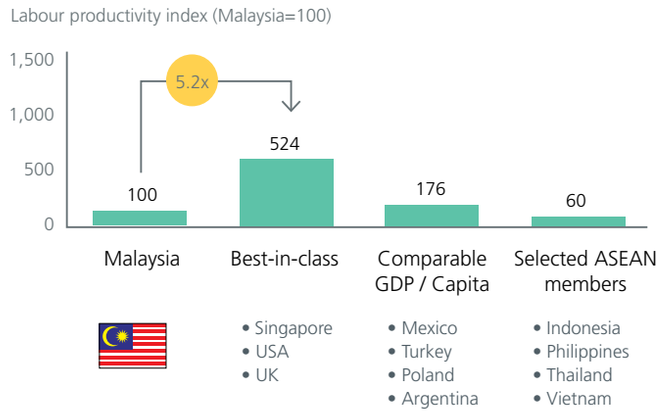

Professional Services Key Productivity Challenges
Professional Services Subsector Initiatives
WORKFORCE
Shortage of professionals
• Lower compensation in Malaysia when compared to other developed economies
• Graduates lack key skills, such as lower proficiency in English and grasp of core industry principles
• Syllabus sometimes too theoretical, with poor emphasis on English and practical skills
Provide input to colleges and universities to ensure curriculum and training are industry-relevant
TECHNOLOGY
Low adoption of ICT especially amongst smaller firms and sole practitioners
• Lack of understanding of ICT tools
• Perception that investment can only be recouped in the longer term
Encourage adoption of technology solutions, such as to track progress digitally rather than on paper
INDUSTRY STRUCTURE
Majority of companies lack scale to bid for large projects and to make human capital and/or operational investments (for example, engineering consulting firms are smaller in scale than foreign firms and are less able to compete for overseas projects)
• Industry highly fragmented with 96% made up of SMEs
• Industry only semi-liberalised (for example, foreign players in criminal law and family law practise are unable to expand to Malaysia)
Form cross-country professional services consortiums to increase capability to compete abroad
Encourage adoption of operational metrics and performance-linked KPIs by professional services firms
BUSINESS ENVIRONMENT
Inconsistent and contradictory regulations
• Contradictory regulations, such as Local Government Act 1976: different chapters detail out different regulations for renewal of licenses in states
- Subsection 4: license to be renewed annually
- Subsection 6: license to be renewed every 3 years
Address regulatory inconsistency and constraints to enable the set up of alternative business models that are in line with global trends

Figure 4-5

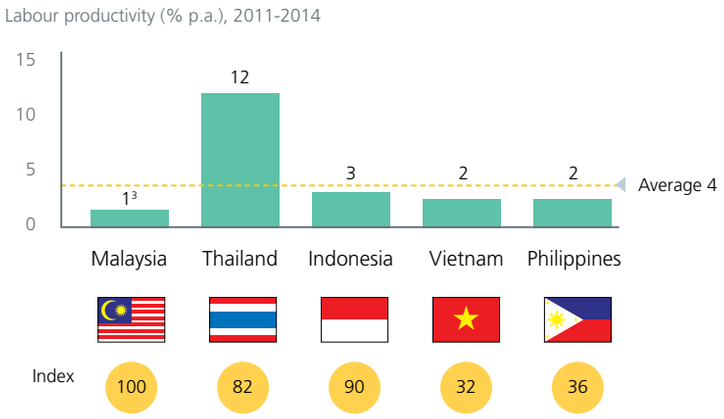
TOURISM SERVICE[1]

Gross Value Add (RM bn), 2015	33.9	Labour Productivity (RM'000), 2015	27.4	11MP Labour Productivity Target (% p.a.)[2]	4.1
Total Employment ('000), 2015	1.2	Labour Productivity (% p.a.), 2011-2015	0.7	Growth Surplus / Shortfall (% p.p.)	-3.4

Malaysia's labour productivity lags best-in-class average by 5.2x



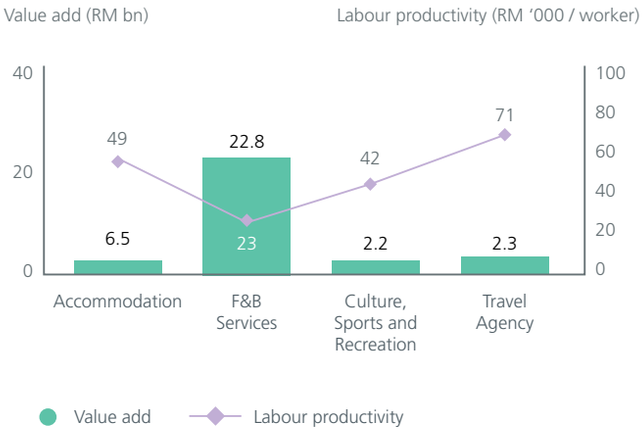
Malaysia's labour productivity growth in line withmost of ASEAN but lags behind Thailand



SUBSECTORS TOURISM

Accommodation Services	Travel Agencies
Food and Beverages (F&B) Services	Cultural, Sports and Recreational activities

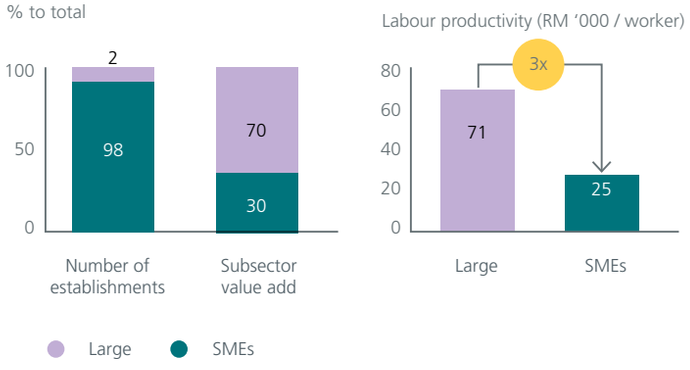
F&B Services provide highest value add but lowest productivity level



SUBSECTOR COMPOSITION[4]

2011 Census	Large	SMEs
Number of Establishments ('000)	0.6	151.5
Average Value Add (RM mn)	17.1	0.1
Number of Employees ('000)	155	680
Labour Productivity (RM'000)	71	25

SMEs make up 90% of companies and are 3x less productive than large companies



1.Value add and labour productivity at 2010 Prices. 2. Services labour productivity growth target in 11MP. 3. 2011-2015 period. 4. Accomodation; F&B services; and Cultural, Sports and Recreational.

Source: Economic Planning Unit, Department of Statistics Malaysia, and The World Bank.

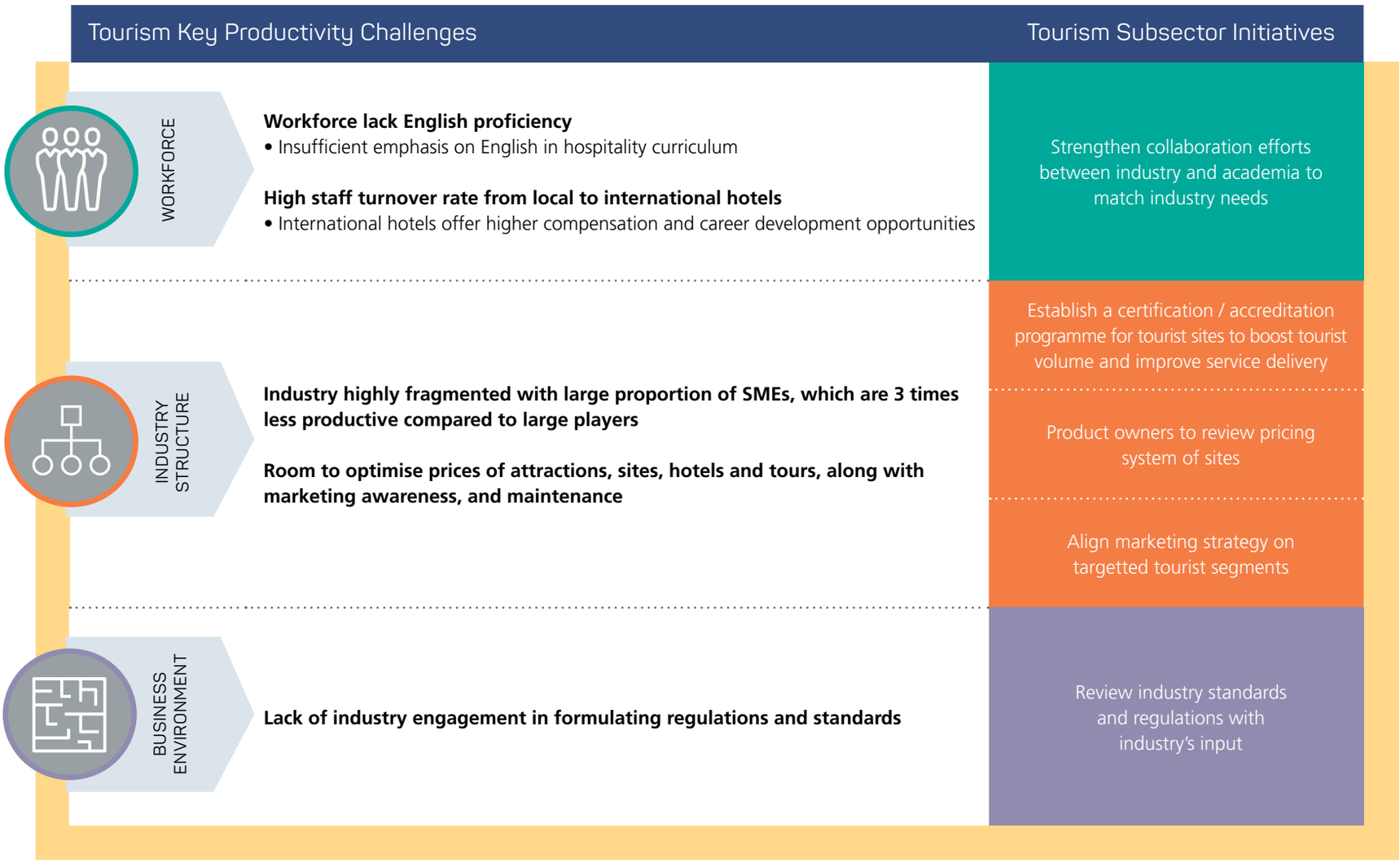
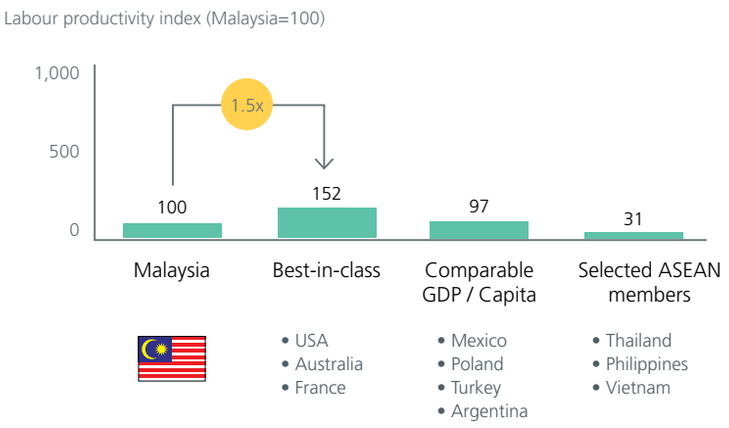

Tourism Key Productivity Challenges
Tourism Subsector Initiatives
WORKFORCE
Workforce lack English proficiency
• Insufficient emphasis on English in hospitality curriculum
High staff turnover rate from local to international hotels
• International hotels offer higher compensation and career development opportunities
Strengthen collaboration efforts between industry and academia to match industry needs
INDUSTRY STRUCTURE
Industry highly fragmented with large proportion of SMEs, which are 3 times less productive compared to large players
Room to optimise prices of attractions, sites, hotels and tours, along with marketing awareness, and maintenance
Establish a certification / accreditation programme for tourist sites to boost tourist volume and improve service delivery
Product owners to review pricing system of sites
Align marketing strategy on targetted tourist segments
BUSINESS ENVIRONMENT
Lack of industry engagement in formulating regulations and standards
Review industry standards and regulations with industry's input

Figure 4-6

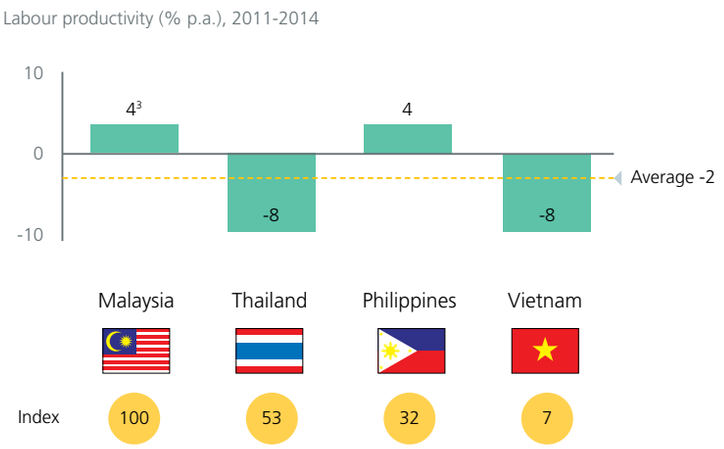
INFORMATION, COMMUNICATION AND TECHNOLOGY[1]

Gross Value Add (RM bn), 2015	142.7	Labour Productivity (RM'000), 2015	134	11MP Labour Productivity Target (% p.a.)[2]	4.1
Total Employment ('000), 2015	1.0	Labour Productivity (% p.a.), 2011-2015	3.9	Growth Surplus / Shortfall (% p.p.)	-0.2

Labour productivity lags best-in-class average by 1.5x



Highest growth of labour productivity among selected ASEAN members market



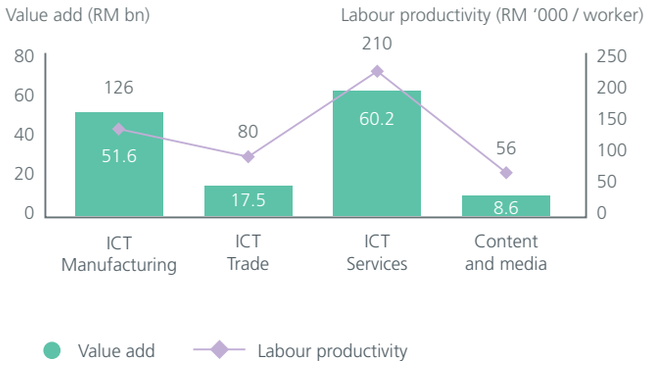
SUBSECTORS IN ICT

ICT Manufacturing	ICT Services
ICT Trade	Content and Media

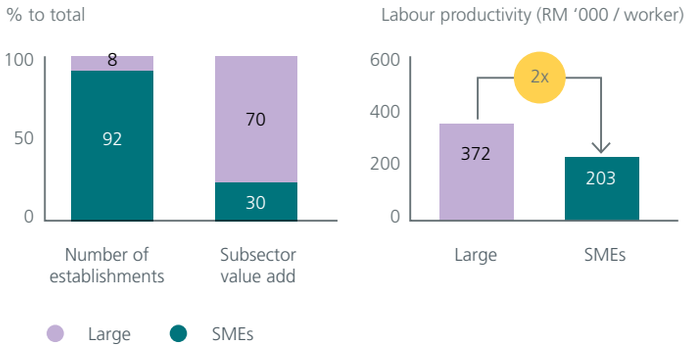
ICT SERVICES SUBSECTOR COMPOSITION[5]

2011 Census	Large	SMEs
Number of Establishments ('000)	0.2	2.2
Average Value Add (RM mn)	178.5	3.7
Number of Employees ('000)	92	39
Labour Productivity (RM'000)	372	203

ICT Services and ICT Manufacturing have highest value add contribution and productivity levels[4]

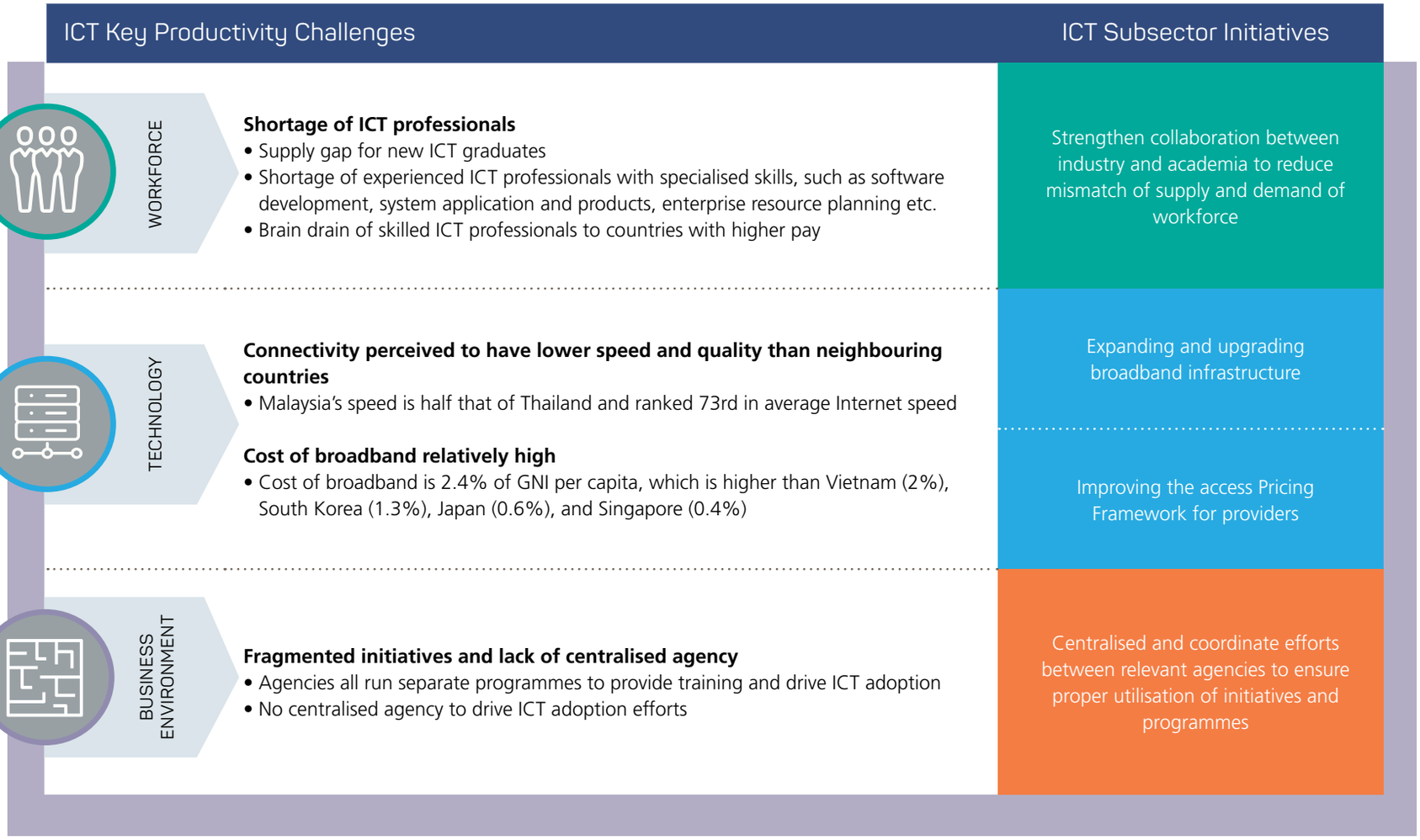


Many small players contributing 22% of value add to overall sector



1. Value add and labour productivity at 2010 Constant Price, ICT includes both manufacturing and services for baseline based on Digital National Satellite Account. 2. Services labour productivity growth target in 11MP. 3. 2011-2015 period.
4. ICT breakdown based on ICT Satellite Account. 5. ICT Services sector composition based on latest available census data in 2011.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, and International Labour Organisation.


ICT Key Productivity Challenges
ICT Subsector Initiatives
WORKFORCE
Shortage of ICT professionals
• Supply gap for new ICT graduates
• Shortage of experienced ICT professionals with specialised skills, such as software development, system application and products, enterprise resource planning etc.
• Brain drain of skilled ICT professionals to countries with higher pay
Strengthen collaboration between industry and academia to reduce mismatch of supply and demand of workforce
TECHNOLOGY
Connectivity perceived to have lower speed and quality than neighbouring countries
• Malaysia's speed is half that of Thailand and ranked 73rd in average Internet speed
Cost of broadband relatively high
• Cost of broadband is 2.4% of GNI per capita, which is higher than Vietnam (2%), South Korea (1.3%), Japan (0.6%), and Singapore (0.4%)
Expanding and upgrading broadband infrastructure
Improving the access Pricing Framework for providers
BUSINESS ENVIRONMENT
Fragmented initiatives and lack of centralised agency
• Agencies all run separate programmes to provide training and drive ICT adoption
• No centralised agency to drive ICT adoption efforts
Centralised and coordinate efforts between relevant agencies to ensure proper utilisation of initiatives and programmes

Deep-dive subsectors

This section outlines the challenges and initiatives identified for each of the deep-dive subsectors: retail, and food and beverages (F&B); agro-food; and chemicals and chemical products.

Retail, and Food and Beverages subsector

The retail subsector includes non-specialised stores (such as department stores, supermarkets and convenience stores) and specialised stores (such as jewellery, technology products, clothing and shoes). The F&B subsector consists of restaurants, including casual dining and quick service restaurants.

A focused study of the retail and F&B subsector is crucial for two main reasons as it is:

1. The largest contributor at 30% to the services sector's value add in 2015; and
2. Largely made up of SMEs. However, data shows that SMEs are only half as productive when compared to large enterprises. Hence, there is potential of raising overall productivity by targeting SMEs.

Key Productivity Challenges for the Subsector

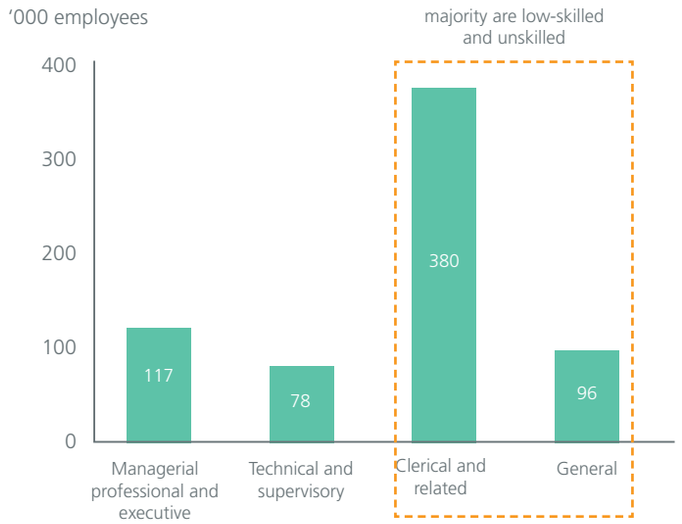
Some of the key challenges that have been identified in the retail and F&B subsector are:

- High reliance on low-skill and low-wage workers
- Low adoption of technology across the subsector
- Lack of operational efficiency tracking

1. High reliance on low-skill and low-wage workers

The main factor affecting the retail subsector productivity is its reliance on low-skill and low-wage workers, which account for over 70% of the subsector's workforce[2].

Figure 4-7 TOTAL RETAIL EMPLOYEES BY OCCUPATION



Source: Department of Statistics Malaysia.

2. Ministry of Home Affairs.

Figure 4-8

RETAIL AND F&B SUBSECTOR

8.3%

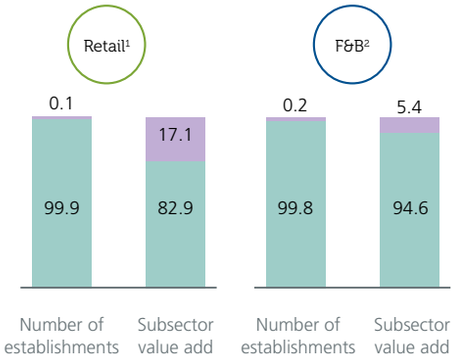
CONTRIBUTION TO TOTAL GDP

18%

SHARE OF TOTAL EMPLOYMENT[1]

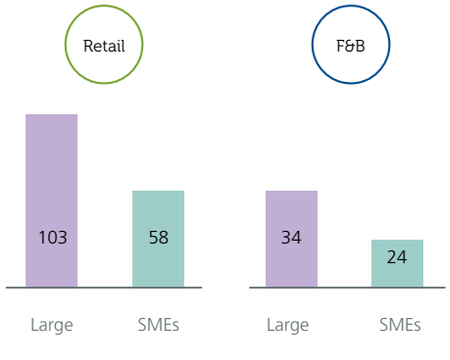
SMEs dominate the subsectors, in terms of both number and contribution...

Number establishments vs. subsector value add (%)[1]



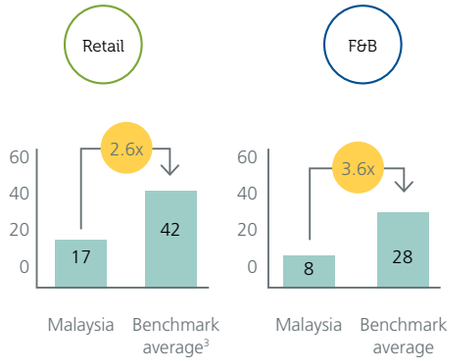
...and SMEs productivity is 2x lower compared to large companies

Labour productivity (RM '000 / worker)



As a whole, retail and F&B are lagging in productivity, behind best-in-class average

Labour productivity (RM '000 / worker)



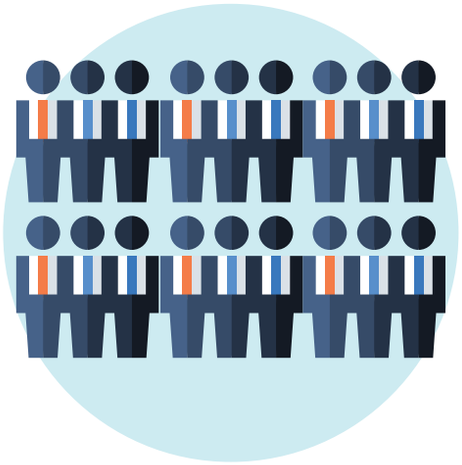
Large SMEs

1. Census of Distribution Trade Report 2014. 2. Census of Food and Beverages 2012. 3. 2015 figures. Average benchmark comprises data from USA, Singapore and Australia.

Source: Economic Planning Unit, Department of Statistics Malaysia, and Department of Statistics of respective countries.

Figure 4-9 THE RETAIL AND F&B SUBSECTOR EMPLOYS A LARGE WORKFORCE ACROSS MULTIPLE SEGMENTS

Retail and F&B employs a large workforce ...



2.5 million
employees

... spans across multiple segments

RETAIL

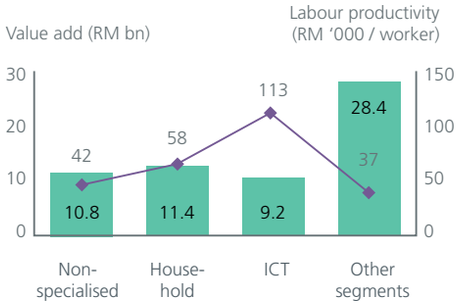
- Non-specialised Stores
- Food and Beverages
- Automotive Fuel
- ICT
- Cultural and Recreation
- Household Equipment
- Trade not in Stalls and Markets
- Trade via Stalls and Markets
- Other goods

F&B

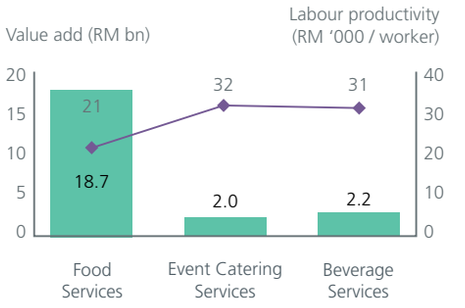
- Food Services
- Beverage Services
- Event Catering Services

... with different levels of productivity

RETAIL



F&B



Labour productivity
Value add

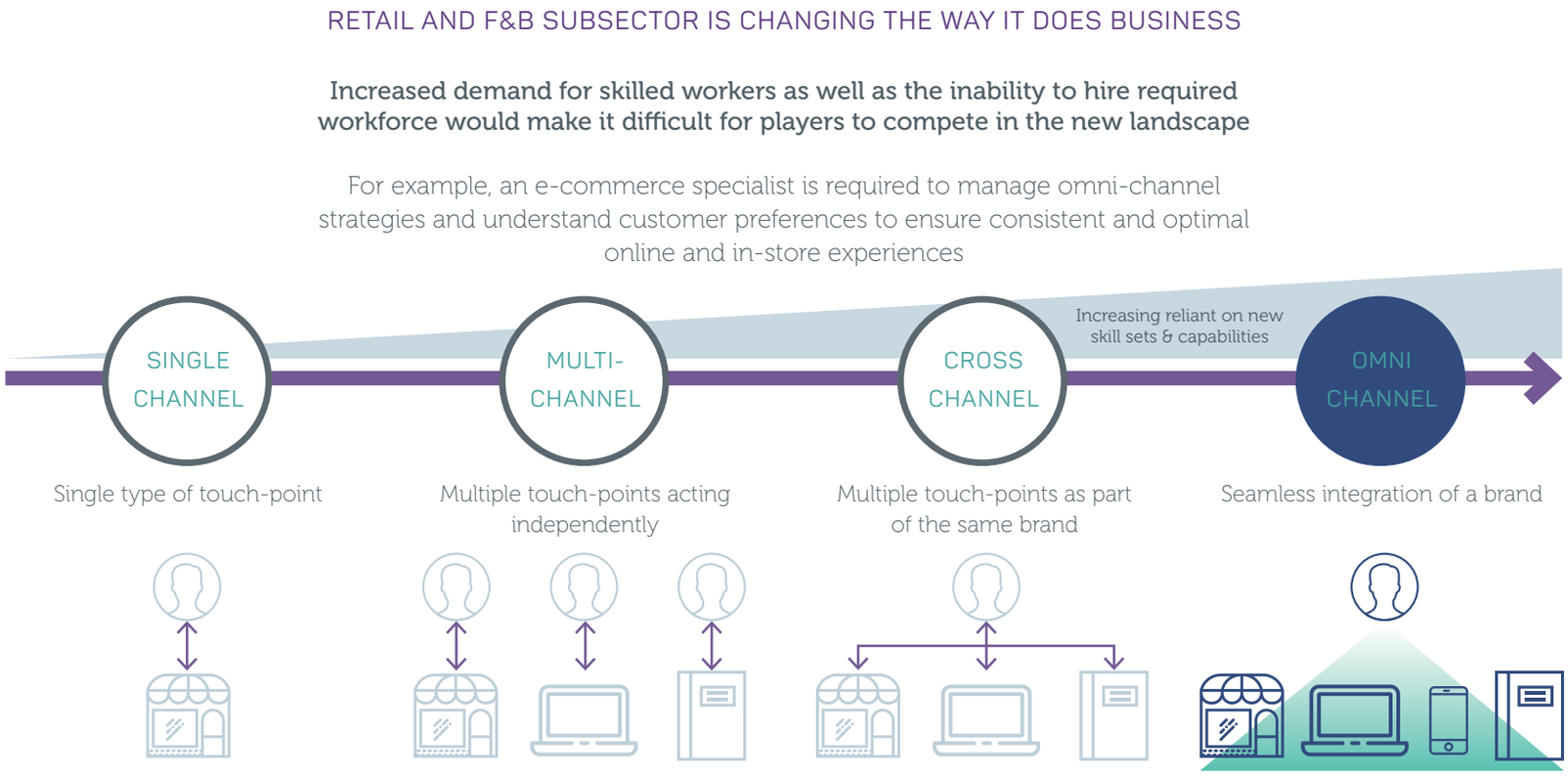
Source: Economic Planning Unit, and Department of Statistics Malaysia.

There are two major factors causing this reliance: the poor perception surrounding the industry and the lack of an attractive career progression. The long hours, low wages and poor career prospects deter talent from entering the subsector, hindering the subsector's ability to recruit skilled labour to drive productivity growth. Furthermore, it is widely acknowledged that there is a lack of investment in staff training programmes. Only 1% of employers utilised the HRDF for certified training[3]. Employers stated that the high turnover rate of employees diminished the benefits of sending employees for training, further impeding the ability of the subsector to upskill its talent pool. Given that more industries utilise online platforms as well as e-commerce in the retail subsector, higher skilled employees are required to maintain a competitive edge. Hence, over relying on low-skilled foreign labour is a poor alternative to a highly skilled workforce, and ultimately results in poor productivity performance in the subsector.

2. Low adoption of technology across the subsector

The retail and F&B subsector is dominated by SMEs, with limited resources and capability to invest in technology that can be a viable alternative to low-skilled labour. The subsector spends less on ICT compared to any other subsector as well as relative to that in other countries. This directly impedes the ability of these enterprises to compete, especially with the rise in e-commerce that changes purchasing patterns and store formats globally (see Figure 4-10).

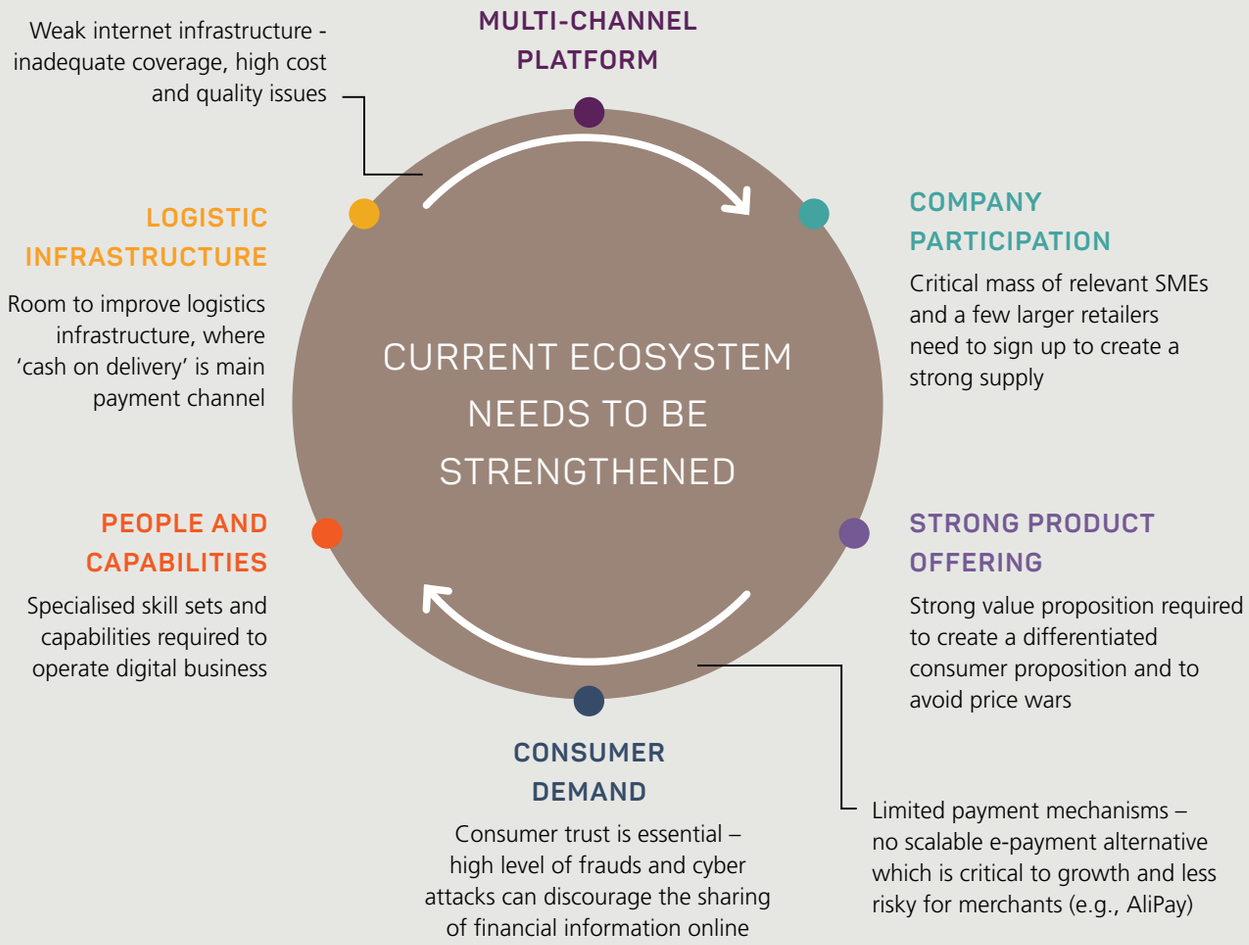
Figure 4-10 TRENDS SHIFT DEMAND FOR SKILL SETS REQUIRED IN THE RETAIL AND F&B SUBSECTOR



3. Globally Recognised Industry and Professional Certification (1 Malaysia GRIP).

Presently, a low proportion of SMEs in Malaysia are involved in doing business online, mainly focusing on the adoption of computers and the internet, with low usage of other ICT tools[4]. To increase competitiveness and drive productivity, it is important that industry players are better equipped to utilise technological advancements. This requires a holistic ecosystem in place and the strengthening of key enablers of technology (see Figure 4-11).

Figure 4-11 HOLISTIC ECOSYSTEM REQUIRED FOR SUCCESSFUL E-COMMERCE IN RETAIL AND F&B SUBSECTOR



Successful e-commerce requires an entire ecosystem to come together

4. SME Corp Survey, 2015.

3. Lack of operational efficiency tracking

Furthermore, enterprises within the retail and F&B subsector do not prioritise productivity performance tracking. Its importance in day-to-day operations tends to be overshadowed by the operational challenges faced in meeting production needs. Some enterprises have indicated that the lack of priority placed on productivity stems from the perception that productivity enhancement requires large capital investments, that are not always justified by the risk these investments entail. Therefore, it is unsurprising that almost 40% of survey respondents[5] stated that their companies do note have systems in place to effectively monitor the efficiency of processes and operations. This explains the fact that labour productivity of domestic SMEs is two times lower than large players, even though SMEs contribute 77% and 92.1% of value add in the retail and F&B subsector, respectively. There is a drastic need to change mindsets surrounding productivity, and strategically prioritise productivity tracking in order to drive better operations and returns.

To address these core issues, the Blueprint recommends four subsector-specific initiatives, which correspond with the national thrusts:

- R1 Provide support to high potential SMEs for digitilisation of business operations and build e-commerce capabilities
- R2 Promote opportunities for sharing economy
- R3 Strengthen Retail and F&B competencies
- R4 Provide assistance to Retail and F&B players to grow internationally

R1 Initiative R1: Provide support to high potential SMEs for digitilisation of business operations and build e-commerce capabilities

In line with the need to better support and equip local enterprises to adopt technological advancements, this initiative proposes to provide SMEs with access to e-commerce experts who will offer end-to-end e-commerce advisory support.

To increase the number of SMEs who venture into local and international e-commerce markets and successfully increase their sales and customers, the Blueprint proposes for the development of an e-commerce knowledge-based platform, that links all existing e-commerce initiatives and matches businesses to vendors. This will streamline the entire process of conducting business online.

In ensuring the success and sustainability of online platforms for e-commerce purposes, the Blueprint will facilitate the strengthening of the e-commerce ecosystem to increase SMEs capabilities in adopting of digital tools. This, in turn, will attract workers with digital and technological skills to work for SMEs, boosting productivity.

To ease the access to e-commerce resources for SMEs, the Blueprint will establish an advisory support platform that is available through website, mobile application and telephone hotline. These channels of communication will connect businesses to e-commerce experts that provide advice on any e-commerce related issues, easing the shift to increased digitalisation.

5. Online Productivity Survey.

R2 Initiative R2: Promote opportunities for sharing economy

This initiative aims to support and promote sustainability, social cohesion and a robust retail and F&B subsector. It calls for identifying the opportunities of the sharing economy through stakeholder's needs assessment and benchmarking with global best practices. Pilot projects will be identified, implemented and further refined based on feedback before expanding the projects.

Existing laws and regulations will be strengthened to stimulate sustainable shared services by ensuring risks are mitigated while not curtailing growth and innovation, as well as ensuring the protection of consumers and workers.

Industry and the government will collaborate in developing the sharing economy platforms, in which industry players will lead by example in establishing platforms to improve resource utilisation, drive efficiency and scale up businesses. The government will facilitate industry participation, foster partnerships and participate in the sharing economy.

The awareness about the opportunities and benefits of the sharing economy will be increased, especially among the underprivileged, to boost workforce and industry participation, which will foster greater inclusiveness.

The sharing economy innovation ecosystem will be strengthened to allow entrepreneurs explore the new concept, foster entrepreneurial and develop digital technology talent. The digital technology infrastructure will also be enhanced to support pervasive seamless and widespread adoption of the sharing economy platform. This includes fostering open data ecosystem across government and industries.

R3 Initiative R3: Strengthen Retail and F&B competencies

This initiative focuses on ensuring employers' commitment to developing talent and competencies as well as providing a strong incentive structure and career development programme for employees. It calls for establishing a talent development programme, which includes specific measures to recruit and retain quality human capital.

The Blueprint proposes proactive engagement with successful enterprises to develop better career pathways and incentive structures. This will encourage graduates to actively seek a long-term career in retail and F&B, while motivate employees to provide high quality customer service and improve efficiency, all of which will boost subsector productivity. The Blueprint also calls for jobs to be redesigned to match the future needs of the subsector. It is important that enterprises are prepared to redesign jobs to involve higher value add tasks, with the lower value-adding tasks eventually being replaced by the adoption of technology. Thus, it is vital that enterprises recognise the importance of investing in and developing their human capital.

BOX 4-1

LAZADA
Effortless Shopping

Lazada is Southeast Asia's number one online shopping and selling destination, with presence in Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

Launched in March 2012, Lazada is pioneering e-commerce in the region by providing customers with an effortless shopping experience with multiple payment methods, including cash-on-delivery, extensive customer care and free returns. Lazada features a wide product offering in categories ranging from consumer electronics to household goods, toys, fashion and sports equipment.

Lazada offers brands and merchants a marketplace solution with simple and direct access to about 560 million consumers in six countries through one retail channel. In view of Lazada's undeniable potential, Alibaba[1] invested US$1bn into the company in 2016.

Lazada has built a successful e-commerce platform that is easily accessible to SME retailers, who are seeking to expand their offerings online but lack the scale or experience to do so.

With approximately 12,000 sellers on board in Malaysia, Lazada is supporting the growth of Malaysian SMEs through hassle-free fulfilment services, e-commerce trainings as well as marketing and analytical support. This has vastly increased the value add of SMEs in the retail subsector, who previously might not have had the resources and reach of an MNC in selling their wares.

In June 2016, Lazada Malaysia signed a partnership with CIMB Bank Bhd to offer enterprise clean loans (ECLs) to Lazada merchants to further support the expansion of local SMEs and raise productivity. Under this scheme, financing of up to RM300,000 per company is offered with a loan tenure of up to five years. These customised ECLs have a rapid turnaround, offering a 48-hour approval timeline with the loan disbursed within 24 hours upon full document execution, giving SMEs faster and easier access to the funds they need to fuel their business growth.

1. Alibaba is one of the most popular destinations for online shopping in the world e-commerce market.

Source: www.lazada.com and www.cimb.com.

R4 Initiative R4: Provide assistance to Retail and F&B players to grow internationally

With the fast-paced business landscape of the retail and F&B subsector, it is essential that domestic enterprises are equipped to successfully venture into international markets. This initiative strives to provide strategic customised assistance to high potential, medium-sized SMEs who are seeking to internationalise their businesses but lack the capabilities and support to penetrate overseas markets. The assistance will enable SMEs to develop their trade networks via international trade fairs and gain access to current market research.

The Blueprint also recommends the enhancement of the existing online platform, which will provide a one-stop centre to obtain information onhigh potential markets that would be of interest for growing SMEs. By improving local players' knowledge of global markets and effective business strategy and product design, it is hoped that there will be a visible increase in high potential medium-sized SMEs and brands penetrating international markets.

To support the existing international expansion efforts, the Blueprint recommends providing tailored assistance to high potential SMEs, including international trade representatives, showroom assistance and language support. These channels of support will serve as an initial point of contact for local SMEs before launching global marketing campaigns. Ultimately, this assistance will push the visibility and competitiveness of SMEs internationally.

BOX 4-2

Marrybrown is a homegrown fast food restaurant chain established in Johor Bahru in 1981, and is the first local fast food chain to franchise its business in Malaysia. Currently, it has more than 350 restaurants in 15 countries throughout Asia, Middle East and Africa. Marrybrown's vision is to be an icon of national pride. Marrybrown has been highly effective at catering to local nuances in taste – the main factor underlying its rapid expansion into markets abroad.

In order to replicate Marrybrown's success across other F&B players with the potential to expand internationally, the Malaysia External Trade Development Corporation (MATRADE) has taken the initiative to introduce the country's first ever Integrated Centre for Export (ICE) at Menara MATRADE. Open twice a week on Wednesdays and Thursdays, the ICE aims to ease access to up-to-date information on exporting, including matters of financing, customs regulations, standards and certification, logistics as well as industry-related data. This full-fledged export service centre also provides information about all relevant programmes carried out by MATRADE, relevant ministries, agencies, associations and banks, acting as a one-stop centre to SMEs targeting expansion abroad.

Agro-food Subsector

The agriculture sector is a key component of the Malaysian economy. As at 2014, the sector makes up 9% of the GDP and contributes 12% of the total national employment.

The agriculture sector can be broken down into two subsectors, namely industrial commodities and agro-food. This section will focus on the agro-food subsector for two main reasons:

1. The industrial commodities subsector is fairly mature given the presence of large and successful Government Link Companies (GLCs), which have contributed to uplifting the productivity of the sector. On the other hand, the agro-food subsector is more fragmented and dominated by small players, who can benefit from more guidance and intervention on productivity improvements.

2. The agro-food subsector is expected to increase its contribution to total value add of the agriculture sector as a whole. As targetted in the *Dasar Agro Makanan Negara* (2011-2020), it may potentially grow to contribute up to 50% of the total value add of the sector by 2020.

Key Productivity Challenges for the Agro-food Subsector

The current key challenges which impact the productivity levels of the agro-food subsector have been identified as follows:

- Insufficient focus on value-adding activities and disconnections along the value chain
- Many small players with low levels of productivity
- Issues with quality and standards across the subsector
- Low adoption of technology and modern farming techniques

1. Insufficient focus on value adding activities and disconnections along the value chain

The agro-food value chain is highly fragmented, with a disconnection between upstream producers and downstream manufacturers. Traditionally, government programmes have focused heavily on production, and as such, there is a lack of emphasis placed on the post-production value chain. This leads to a low conversion of raw produce into higher value-add products. A study has indicated that approximately 80% of wholesale agro-food production in Malaysia is sold for direct consumption, while the remaining is further processed into other goods[6]. This current state is driven by multiple factors, such as the absence of distribution and logistics services (especially in the rural areas) and reliance on middlemen who are primarily focused on transporting and moving goods with minimal interest in converting goods into higher value products. At the same time, there are weak linkages between the upstream and downstream activities, due to poor dissemination of information between agro-food producers and manufacturers, resulting in mismatched supply and demand. This issue is evidenced by the fact that several large agro-food manufacturers rely on imported produce as raw material for their products, despite the same produce being available locally.

2. Many small players with low levels of productivity

A key feature of the agro-food subsector is its composition, which is largely comprised of SMEs with low levels of productivity. These SMEs face significant difficulties in achieving economies of scale to compete against larger enterprises due to a number of issues including:

6. Findings from Universiti Putra Malaysia (UPM) Research Paper, an Overview of the Supply Chain Management of Malaysian Vegetable and Fruit Industries Focusing on the Channel of Distribution, 2009.

Figure 4-12

AGRICULTURE SECTOR

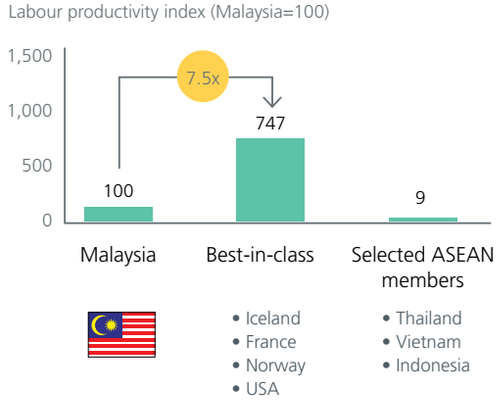
9%

CONTRIBUTION TO TOTAL GDP

12%

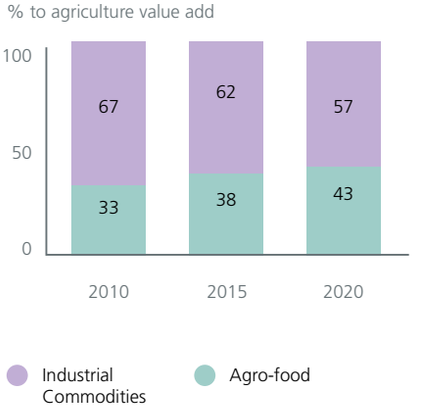
SHARE OF TOTAL EMPLOYMENT[1]

Malaysia's labour productivity is ahead of selected ASEAN members but lags best-in-class average by 7.5x



Selected ASEAN peers are experiencing productivity growth while Malaysia's growth is declining

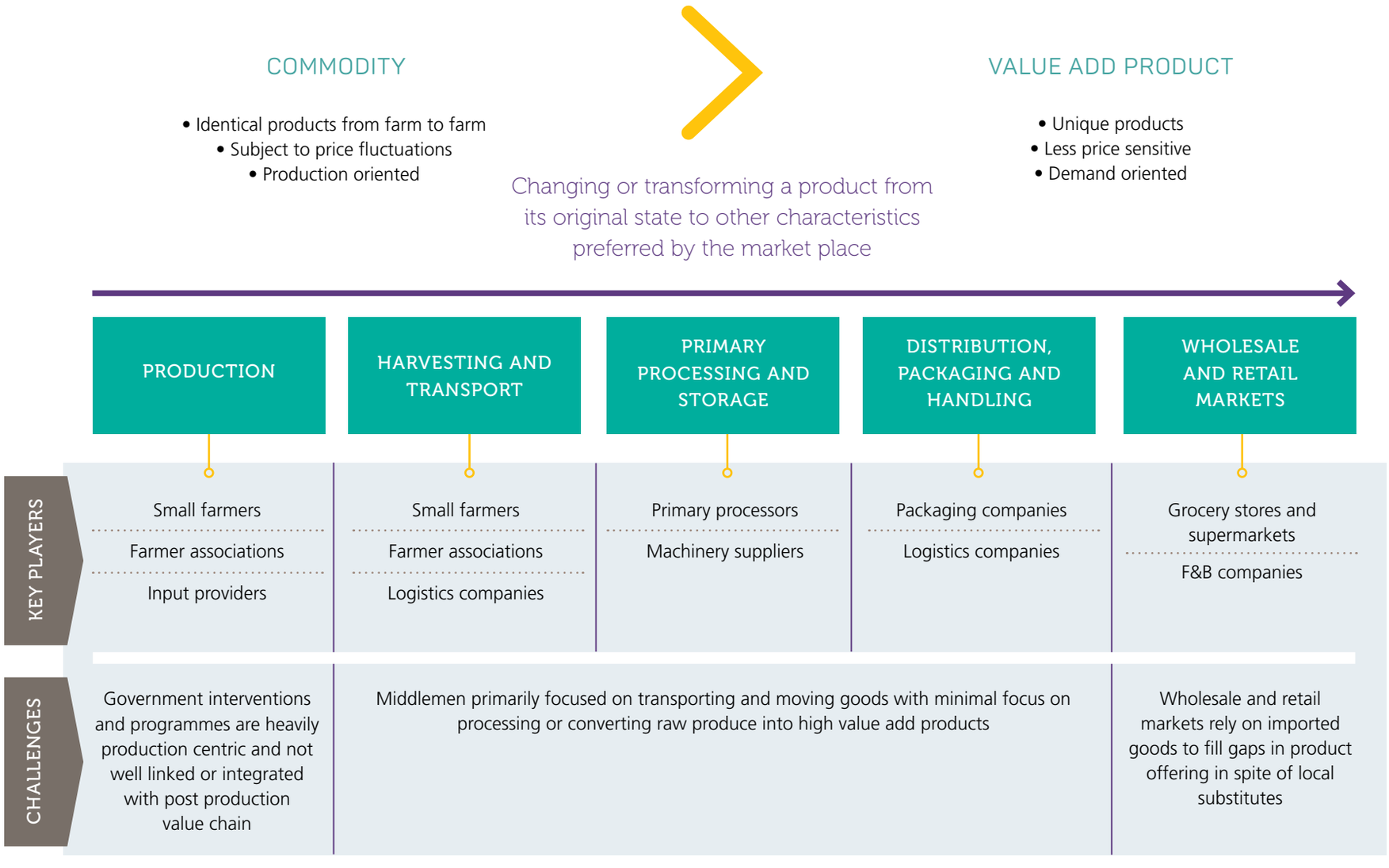
Going forward, agro-food is expected to become a bigger contributor to the sector as a whole[2]



1. 2015 figures. 2. *Dasar Agro Makanan Negara, 2011-2020*. 3. 2011-2015 period.

Source: Economic Planning Unit, Department of Statistics Malaysia and Ministry of Agriculture and Agro-based Industry.

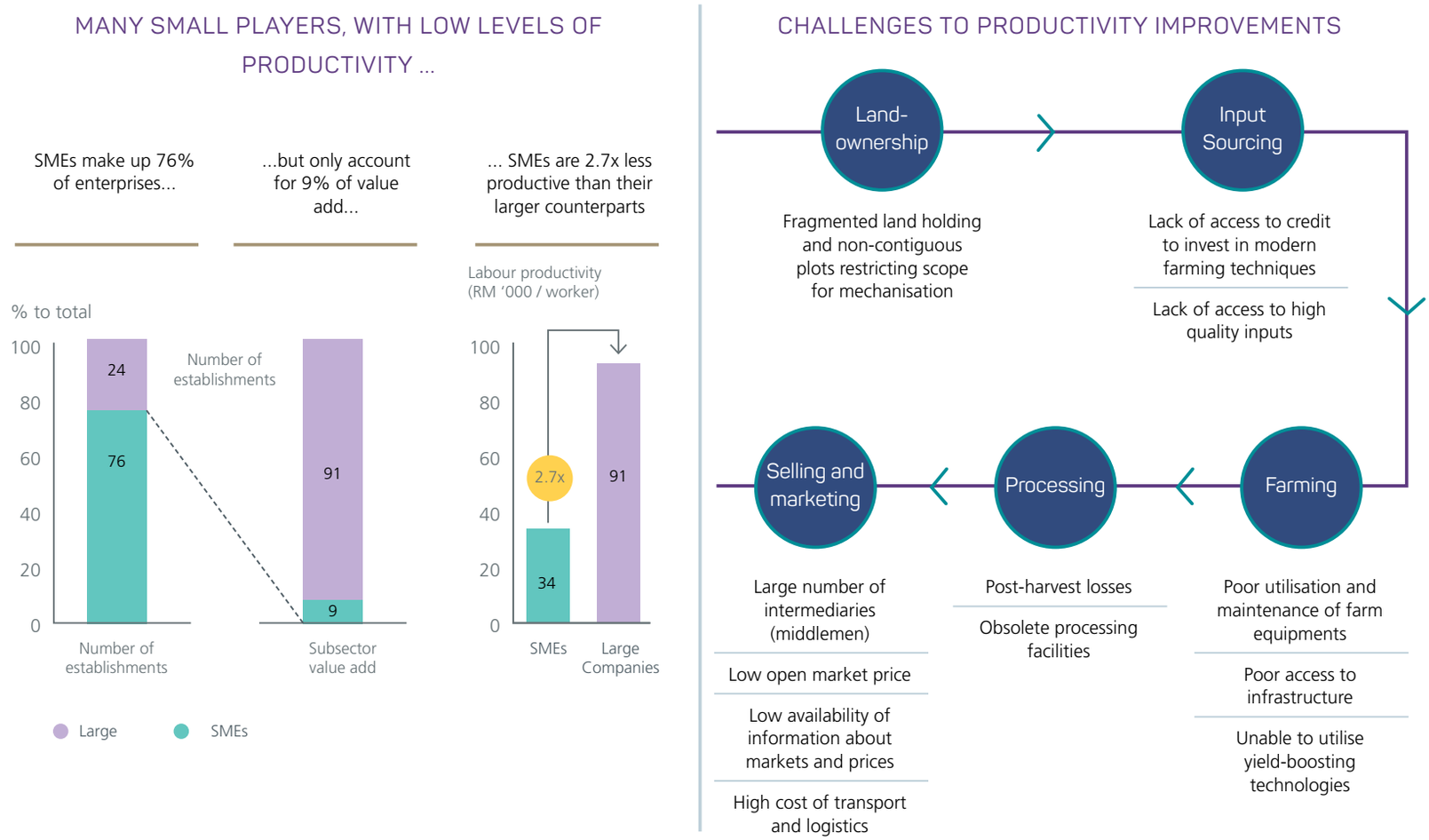
Figure 4-13 DISCONNECTION ALONG THE VALUE CHAIN KEY BARRIER TO AGRO-FOOD PRODUCTIVITY



- Fragmented land ownership that restricts the scope for growth and mechanisation
- Limited access to credit that hampers investments in modern farming techniques
- Poor access to quality farming inputs and infrastructure that decreases yield production
- Obsolete processing facilities that result in post-harvest losses
- Limited selling and marketing capabilities, resulting in low prices due to low market access and excessive reliance on middlemen

With increasing trade liberalisation and market access, these SMEs will be further challenged to remain competitive.

Figure 4-14 AGRICULTURE SECTOR IS DOMINATED BY SMEs WITH LOW LEVELS OF PRODUCTIVITY



Source: Department of Statistics Malaysia.

3. Issues with quality and standards across the subsector

Overall, there is a lack of emphasis on excellence across multiple areas within the subsector, including quality issues in human capital, R&D and products. From a human capital perspective, there is poor replenishment of talent within the subsector, given that 60% of the workforce are above the retirement age, and there is low inflow of younger talent into the subsector given the perception that the subsector is 'Dirty, Difficult and Dangerous'. At the same time, industry players believe that graduates for the subsector are not field-ready, given that there is a mismatch between curriculum delivered and what is required by the subsector. These issues, combined with the ease of access to cheap foreign labour, have led to a high reliance on low-skilled foreign labour. About 50% of enterprises in the Online Productivity Survey agreed that access to foreign labour was crucial to their business.

From a knowledge creation perspective, Malaysia has amongst the highest agri-related R&D spend in South East Asia. However, while research funds have led to a high number of publications, there have been low commercial outcomes. This mismatch can be attributed to insufficient dialogue between the industry players and R&D institutions, leading academics to focus on intellectually interesting topics, but often resulting in R&D output that cannot be effectively utilised by the industry. Additionally, commercialisation of R&D often requires capital investment, which is not often allocated for this purpose.

Low product quality also manifests itself in the form of low levels of standards compliance to good agricultural and manufacturing practices among key players. Given the global trend towards higher standards of food quality and safety, the lack of emphasis on standards and quality has negative implications on sector and national productivity. Despite local standards which are less stringent than global standards, compliance levels are still relatively low. Upstream players are not shifting to optimal farming practices, evident in the low compliance rate to Malaysia Good Agricultural Practices (MyGAP) at 4.6%, while the growth of downstream players is limited by non-compliance to standards such as Hazard Analysis and Critical Control Points (HACCP) and Good Manufacturing Practices (GMP). In the long run, this will have detrimental impact on the ability of the subsector to compete on an international platform.

4. Low adoption of technology and modern farming techniques

With the increasing advancement of technology and digitalisation, the agro-food subsector is lagging in the adoption of modern farming techniques. Malaysia's investment in farm capital is significantly lower than its ASEAN neighbours. About 52% of enterprises surveyed are unsure or agree that they are not investing enough in technology. This low adoption of technological innovation by agro-food enterprises will undoubtedly affect their productivity performance.

To address these core issues, the Blueprint recommends six subsector-specific initiatives, which directly correspond with the aforementioned national thrusts:

- A1 Facilitate better matching along the supply chain by linking downstream demand to upstream supply
- A2 Embed robust contract-farming model across the subsector
- A3 Push for enforcement and adoption of relevant standards and practices to strengthen end-to-end value chain
- A4 Boost awareness and adoption of technological upgrades and modern farming techniques
- A5 Establish industry-led collaboration with educational institutions
- A6 Encourage agro-food players to move into high value add products and markets

A1 Initiative A1: Facilitate better matching along the supply chain by linking downstream demand to upstream supply

To reduce the gap within the agro-food value chain, there is a need for better compilation and dissemination of information within the subsector. This initiative aims to address this information asymmetry by establishing a knowledge-sharing platform to disseminate market demand and supply information. The MyAgriculture Flagship that is being developed by the Ministry of Agriculture and Agro-based Industry can potentially serve as a knowledge-sharing platform to compile and disseminate information related to agriculture.

This platform will ensure that agro-producers are up-to-date on the demand for produce and are able to cater to those demands. Additionally, agro-manufacturers will be able to identify potential local producers who can provide them with raw product, hence reducing the reliance on imports. Through this platform, gaps within the value chain can also be identified and subsequently, players can be enabled and supported to move into the 'white spaces' within the value chain. This will help focus subsector players on value-adding activities which, in turn, will boost the productivity of the subsector as a whole. Beyond the setting up of the platform, roundtable talks to encourage linkages and collaboration between upstream and downstream players should also be encouraged.

A2 Initiative A2: Embed robust contract-farming model across the subsector

This initiative seeks to promote market access for small farmers and reduce their dependence on middlemen by embedding a robust contract-farming model between leading industry players and small farmers. This will improve market access for small farmers and simultaneously build their capabilities through transfer of knowledge from larger players. However, past attempts to put in place contract farming have seen varying levels of success due to the unsustainable nature of the contracts.

Companies which have been successful in implementing contract farming have been identified, including Nestlé Malaysia (paddy and chilli contract farming) and Farm Fresh (dairy contract farming). Based on these best practices, a robust contract-farming model framework needs to be developed to ensure shared value for all parties, ensuring the sustainability of the contracts. For the smallholder, the benefits include increased market access, secure demand from established agro-food players, increased transfer of knowledge as well as better access to input and product support. Large players benefit from increased security of supply in terms of quality, quantity and timing.

BOX 4-3

The Nestlé Paddy Club, a contract farming arrangement between Nestlé Malaysia and the local paddy farming community in Kedah, is an example of a success story that has boosted productivity in the agricultural sector whilst concurrently increasing the welfare of B40 households. One of the key initiatives of the Nestlé Paddy Club is the transfer of technology to local farmers – this has been done through the commercialisation of the Semi Aerobic Rice Intensification (SARI) method, a means of decreasing water usage in the planting of paddy while also decreasing the methane emissions of decaying submerged organic materials. SARI only requires that farmers release water from the paddy fields on the 50th day of each planting season, and that the soil is saturated, but not inundated with water. This has a water savings potential of up to 40% as well as reduction of methane emission by 74% from the conventional wet farming method. Despite the much reduced input of water, the output of the paddy fields running SARI achieved an average of 6.4 tonnes per hectare, higher compared to the national average of 3.7 tonnes per hectare.

The SARI method pioneered by Nestlé was first introduced to 20 pioneering farms in 2010, and is now applied across more than 800 hectares of farmland in Kedah. Nestlé started the Paddy Club in 2012 with more than 300 farmers joining the programme with the adoption of a contract-farming model that was mutually beneficial. The contract-farming model guarantees a set price for the produce of the farmers regardless of the spot price of the crop at the time of harvest, while allowing the transfer of technology and best practices from Nestlé to the smallholders that helps in increasing the paddy yield. The increased stability creates the space for smallholders to take a longer view and incentivises their compliance with Good Agricultural Practices (GAP). This raises the quality of their crops to global standards and increases the competitiveness of smallholders in the international marketplace.

As the truest affirmation of Nestlé's philosophy of Creating Shared Value (CSV), the Paddy Club has benefited both smallholders and Nestlé alike; farmers have seen their incomes sustainably increase, while Nestlé is able to manufacture and market a globally competitive food product that satisfies the discerning yet environmentally conscious millennial consumer.

Source: Nestlé (Malaysia) Berhad.

A3 Initiative A3: Push for enforcement and adoption of relevant standards and practices to strengthen end-to-end value chain

With increasing global food quality and safety standards, this initiative will combine efforts of the government, standards authorities, enterprises and agro-food associations to help agro-food players implement measures to comply and maintain food standards certifications. Among others, the relevant standards and practices include MyGAP, HACCP and GMP.

The goal will be to increase the proportion of players who are able to adopt the right measures to qualify for, achieve and maintain certification, while at the same time ensuring that certifying authorities are empowered and have the capacity to enforce the standards. At the same time, consumers must be educated to value high quality produce so that producers will be more incentivised to push for better standards.

Technical aid and financial assistance can be provided to companies who require support to achieve the right certification. At the same time, standards authorities need to be strengthened with transparent and easy processes as well as competent and sufficient manpower, support systems and equipment to be able to enforce certification. This will improve the effectiveness of the certifying authorities in pushing for higher compliance levels.

However, this initiative will only obtain buy-in and enhance productivity if there is a near universal consumer awareness and appreciation of food standards. The Blueprint proposes the launch of consumer campaigns to spread the importance of food standards.

A4 Initiative A4: Boost awareness and adoption of technological upgrades and modern farming techniques

As land for agriculture becomes increasingly scarce, technology adoption has been the key driver to boosting agro-food yield and profitability around the world. This initiative aims to improve the awareness of technology applications in the agro-food subsector and support technological upgrades and modern farming techniques, particularly among SMEs.

The Blueprint calls for the development of tailored technologies that are suitable and cost efficient for small local players, such as digital tools from drones, robotics, remote sensing and cloud-based farm management systems under precision farming. Other modern farming techniques can include water management, usage of high quality seeds and fertilizers and weather management. To ensure SMEs understand the importance of technological improvements and are receptive to new ways of working with the tailored technology, information on programmes focused on technology adoption for agro-food players will be disseminated by leveraging on relevant stakeholders, such as Department of Agriculture (DOA), SME Corp, industry associations and other extension agencies.

Targetted training programmes will be launched to boost the adoption of productivity-enhancing technologies by SMEs. The impact of technology on productivity will be measured and tracked to extract key lessons for continuous improvements.

A5 Initiative A5: Establish industry-led collaboration with educational institutions

The mismatch between talent required by industry players and that being supplied by educational institutions is a prevalent issue. Given the insufficient talent and poor commercialisation of R&D in the subsector, this initiative aims to develop strategic and mutually beneficial partnerships between leading agro-food industry players and relevant educational institutions to strengthen the talent pipeline and knowledge creation within the subsector.

Industry players must take the lead to attract and develop talent within the subsector and ensure the relevance of R&D. The Blueprint proposes identifying and matching suitable industry players and relevant educational institutes to design and launch customised programmes. The collaboration would include discussions on product research, competitions for commercialising R&D findings, sponsoring of final year projects that are relevant to enterprise needs as well as providing potential job offers for successful students. The increased role of industry in shaping the talent pipeline and creation of knowledge within the subsector will translate into greater industry relevance of agro-food related programmes in training and educational institutions as well as a higher commercialisation of related R&D conducted by educational institutions. Graduating students who join the agro-food industry will also be more industry-ready. To retain talent within the subsector, attractive career pathways must also be in place.

A6 Initiative A6: Encourage agro-food players to move into high value add products and markets

There is a low focus on high value add products markets by agro-food players. However, food preferences are shifting towards more 'premium' products, such as organic, halal and processed foods. As consumer trends shift toward higher-end products and trade liberalisation becomes increasingly prevalent, support is necessary to empower agro-food producers to take advantage of these opportunities.

Market intelligence to move into higher value add products and markets need to be developed and provided to subsector players. Then, high potential players need to be identified and supported to ensure that they are able to take advantage of these new opportunities. Such companies would include SMEs with aspirations to move into different parts of the value chain or export overseas. Hence, industry best practices will need to be developed and communicated to industry players to provide relevant insights.

The Blueprint also proposes strategic partnerships between foreign companies and local producers to export products. This will act as a crucial scaffolding for SMEs as they venture to expand independently, creating a supportive ecosystem to help these enterprises move into international markets.

BOX 4-4

Biotropics is an enterprise that engages in the R&D, discovery, identification, commercial extraction, manufacturing and marketing of high-value herbal based products. Its portfolio of successful products that it currently exports to the USA, Canada, Japan and Hong Kong include herbal supplements based on *Eurycoma longifolia* (Tongkat Ali) and *Labisia pumila* (Kacip Fatimah). The manufacturing arm of Biotropics, Phytes Biotek Sdn Bhd obtained the US Food and Drug Administration (FDA) certification for its extraction facility in 2012, assuring customers worldwide that the facility complies with international standards of health and safety.

In collaboration with Universiti Sains Malaysia from 2012 to 2015, Biotropics spearheaded a project to develop high-value nutraceutical products, which are all-natural non-modified health supplements. This project included providing funding for pre-clinical and clinical trials on the products, along with giving researchers the opportunity to present at symposiums. Such initiatives are necessary if the health benefits of products manufactured by Biotropics are to be scientifically substantiated in order to gain credibility among the scientific community. Credibility from a scientific perspective in turn allows Biotropics to fulfill regulatory requirements and become competitive in the global market. The company has also been recognised by the American Botanical Council as a leading company in terms of research and promotion of local ingredients in the global market.

Biotropics has also been an active participant in industry conferences, with its Physta Tongkat Ali extract selected as the "Industry Success Story" in the "Healthy Aging" category at the Vitafoods Europe Conference 2016, the leading nutraceutical event globally. The Vitafoods Europe Conference is a platform bridging the gap between science and industry, facilitating the sharing of knowledge and formation of partnerships. Biotropics active collaboration with institutions of education and heavy investment into R&D are the main drivers for its strong reception in the US market, raising the productivity of its workers as the herbal products it manufactures are able to command a premium in export markets abroad.

Source: Biotropics Malaysia Berhad.

Chemicals and Chemical Products Subsector

The chemicals and chemical products subsector contributed 2% to the GDP, employing less than 1% of the total employment in 2014. The sector comprises of basic chemicals, pharmaceuticals, other chemicals and man-made fibres.

A focused study on the chemicals and chemical products subsector is grounded on two main reasons:

1. The chemicals and chemical products subsector is fairly mature given the presence of large and successful GLCs, which contributed to raising subsector productivity. However, the subsector is fragmented with a large number of SMEs operating in different segments (such as petrochemicals, oleo chemicals, plastics, etc.) that can benefit from more guidance from large enterprises.

2. About 80% of the chemical manufacturers operate in the base chemical segment. Thus, the chemicals and chemical products subsector has many opportunities to significantly increase the subsector's value add by shifting towards higher value add segments.

Key Productivity Challenges for the Agro-food Subsector

The core issues that have been identified in chemicals and chemical products subsector are:

- Limited presence in high value add segments
- Insufficient talent
- Inability of SMEs to adapt to technological changes
- SMEs unequipped to effectively expand internationally

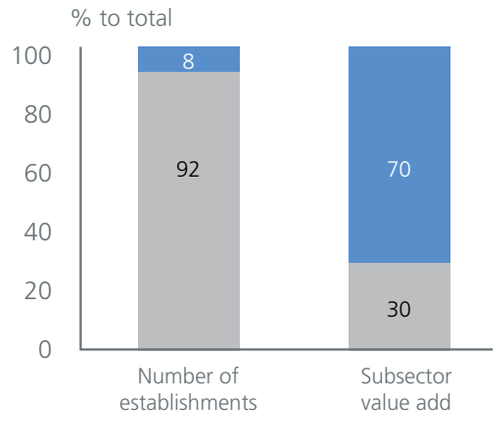
1. Limited presence in high value add segments

Although 90% of the chemicals and chemical subsector consists of SMEs, they contribute a small margin of the overall subsector's value add at about 30%. Market mapping studies have shown that this is due to the fact that almost 80% of chemical enterprises operate within the low value add segments, especially in base chemical manufacturing. This highlights the lost opportunities in leveraging off the higher margins in manufacturing specialty chemicals as well as the modification and formulation segments.

Figure 4-15 shows that chemical enterprises operating within the focused specialty chemical segment gain the highest 10-year running return on net assets and revenue growth. This reinforces the point that chemical enterprises in Malaysia do have opportunities for significant gain, should there be focused effort and investment to move into higher value add segments.

Figure 4-15 PERCENTAGE OF SMES IN THE CHEMICALS AND CHEMICAL PRODUCTS SUBSECTOR MAPPED TO THEIR VALUE ADD CONTRIBUTION

Landscape of chemicals and chemical products companies in Malaysia and corresponding value add (2010)



Source: Economic Planning Unit, Department of Statistics Malaysia.

Figure 4-16 CHEMICALS AND CHEMICAL PRODUCTS SUBSECTOR

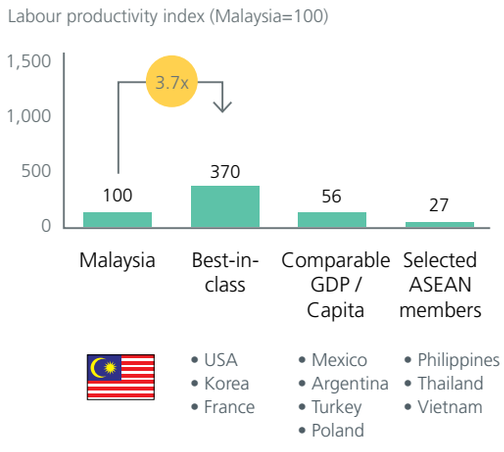
2%

CONTRIBUTION TO TOTAL GDP

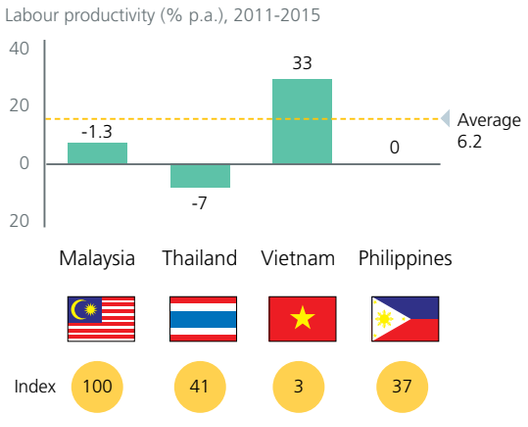
0.8%

SHARE OF TOTAL EMPLOYMENT[1]

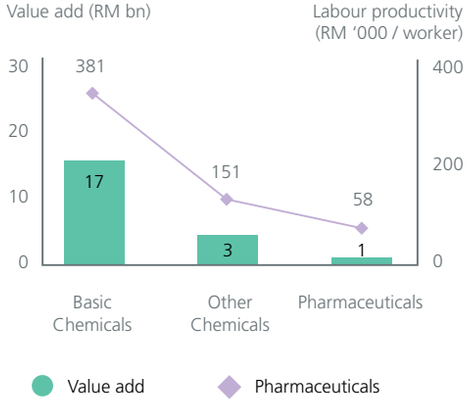
Labour productivity lags best-in-class by 3.7x



Productivity growth slightly below the regional average



Basic Chemicals is the most productive subsector



1. 2015 figures.

Source: Economic Planning Unit, Department of Statistics Malaysia, Oxford Economics, International Labour Organisation.

2. Insufficient talent

Over 34% of survey respondents in the chemicals and chemical product subsector cited talent as the greatest challenge in efforts to raise productivity[7]. This is due to the lack of quality local graduates, who are not industry-ready and unable to meet the changing demands of the niche chemical industry. As a result, employers opt to hire foreign talent and there is also a high turnover rate of employees within the subsector.

In addition, there is insufficient relevant research on chemical manufacturing in universities. The limited capacity of the local academic community has a direct impact on the production and dissemination of current chemical research to industry, as local enterprises have no access to best practices. Hence, there is a crucial need for industry players and academic institutions to communicate their needs and form strategic partnerships that could drive national productivity.

3. Inability of SMEs to adapt to technological changes

The low levels of skilled talent within the chemicals and chemical products subsector also limits the adoption of technological changes by local SMEs. Unaware of investment benefits and unequipped with skills to manage the digital transition, SMEs rarely make the large investments associated with shifting to digitalisation and mechanisation.

As a result, they continuously perform below capacity. This is evident with chemical SMEs, which are currently far less productive than larger chemical enterprises due to the underutilisation of productivity-enhancing technology. To remain competitive, SMEs need to be better equipped with appropriate access to technology and digital tools.

7. Online Productivity Survey.

Figure 4-17 10-YEAR RUNNING RETURN ON NET ASSETS (RONA) AND 10-YEAR REVENUE CAGR BY REGION AND SUBSECTOR

Source: S&P Capital IQ.

4. SMEs unequipped to effectively expand internationally

The chemicals and chemical product subsector is also constantly threatened by the shrinking size of the domestic market. Currently, Malaysia has a limited local market, and up to 90% of larger company output is exported. With SMEs constituting approximately 90% of the local industry landscape, it is essential that these enterprises expand their business internationally.

However, many SMEs are still unequipped to expand internationally and form strong partnerships with foreign players. The lack of access to finance, skilled human capital and technological innovations drastically limit SMEs ability to effectively compete globally. Thus, competitive spaces need to be identified and promoted to allow domestic SMEs to build recognisable brands, boosting international visibility and competitiveness.

To address these issues, the Blueprint recommends five sector-specific initiatives, which directly correspond with the aforementioned national thrusts:

C1	Establish chemicals Centre of Excellence built on clear strategies for chemicals and chemical products subsector
C2	Deepen collaboration between industry players and education institutions offering chemical-related courses
C3	Provide technical, digital and management support to enhance SME capabilities
C4	Enable SMEs to move towards high value add components in the chemical value chain
C5	Provide support to high potential SMEs to expand internationally

C1 Initiative C1: Establish chemicals Centre of Excellence built on clear strategies for chemicals and chemical products subsector

To address the gap between theoretical chemical research and solutions feasible for industry, a chemicals Centre of Excellence will be established to spearhead chemical productivity improvement initiatives. This Centre will provide an immersive experience in advanced technologies, help enterprises navigate relevant technology vendors and enable easy access to best practice benchmarks and information on future industry trends, with the end goal to ensure enterprises move to high value production and enable continuous productivity improvement.

Furthermore, the Centre of Excellence will enable collaborative relationships between academia, large enterprises and SMEs through the sharing of experiences and key lessons from research or ventures undertaken. This will aid the development and launch of various pilot projects between the Centre and industry. By evaluating past experiences, reviewing current trends and periodically tracking effectiveness, these pilot projects will be designed to encourage domestic enterprises to collaborate with the Centre and further enable continuous productivity improvements.

C2 Initiative C2: Deepen collaboration between industry players and educational institutions offering chemical-related courses

The Blueprint proposes a collaboration framework between selected industry players and relevant education and training institutions, with effective tracking mechanisms. This pilot scheme will ensure that educational institutions receive input on updated technological advances and trends related to the industry to enable more targetted curriculum planning as well as research funding. The collaboration will also allow industry players to articulate their required skill sets and provide input on the feasibility of proposed research based on experience on the ground. It will also include a comprehensive framework that will outline potential

collaborations for long apprenticeships, sponsored research and industry-led workshops to develop soft skills, focusing on developing industry-ready graduates. By providing university students the opportunity to experience practical training in the industry, it will also encourage them to develop a career in chemicals in the future, creating a quality pipeline of talent for the sector.

C3 Initiative C3: Provide technical, digital and management support to enhance SME capabilities

A systematic evaluation of industry SMEs is recommended to identify enterprises with high potential for growth and operational improvement. These SMEs will then be supported through mentorship programmes with large enterprises to improve their portfolio mix, operational efficiency, commercial strategies and general management. Ultimately, these SMEs will be supported in improving their competitive advantage by strategically leveraging on available digital capabilities and incorporating new business models to explore new ways of working. The support framework and training content will be streamlined through partnerships with relevant bodies such as the HRDF and the aforementioned chemicals Centre of Excellence to ensure the accountability and transparency of the processes.

C4 Initiative C4: Enable SMEs to move towards high value add components in the chemical value chain

The Blueprint recommends identifying competitive spaces where domestic SMEs can thrive and setting a clear, attainable pathway for them to conduct thorough analysis of downstream supply gaps. By systematically addressing the barriers that prohibit enterprises from moving towards high value add segments, better targetted support can be provided to encourage vertical integration of the currently fragmented chemicals and chemical products subsector. This will steer chemical SMEs away from focusing solely on low value add primary manufacturing.

To ensure the success of SMEs within this initiative, comprehensive strategic partnerships between chemical SMEs and larger downstream chemical players will be encouraged and facilitated to enable knowledge and technology transfers. The Centre of Excellence will be the cornerstone driving the initiative, ensuring continuous focus on productivity improvements of all enterprises regardless of their position in the value chain.

C5 Initiative C5: Provide support to high potential SMEs to expand internationally

The gradual saturation of the local chemicals market coupled with the lack of resources by SMEs to internationalise creates a challenging landscape for the subsector. To address this concern, there is a need to provide strategic support to high potential chemical SMEs to expand internationally.

Hence, the Blueprint proposes the compilation of a list of chemical SMEs with the potential to expand internationally, especially those that successfully completed up-skilling programmes as proposed in Initiative C2. Through collaboration with the Centre of Excellence, these enterprises will be primed with growth strategy guidance and the relevant knowledge for internationalisation. Additionally, the Centre of Excellence will be a significant resource centre for SMEs within the subsector to seek aid and assistance for expansion.

Collaboration with leading global industry player

BOX 4-5

BASF PETRONAS Chemicals is a Malaysian-based joint venture between BASF of Germany and Malaysia's state owned Petroliam Nasional Berhad (PETRONAS) under its subsidiary PETRONAS Chemicals Group (PCG). Incorporated in 1997, BASF PETRONAS Chemicals currently operates an integrated petrochemical complex at the Gebeng industrial zone in Kuantan, Pahang. The company's share of capital is 60% held by BASF and 40% by PCG with a total initial investment of about RM3.4 billion in production facilities for *Acrylic* monomers, *Oxo* products and *Butanediol*.

The range of chemicals produced by BASF PETRONAS Chemicals meet the growing demand in various industries, including plastics, adhesives, lacquers, dyestuff, automobile and industrial coatings, paper, diapers, water treatment, textile and leather.

In April 2014, the company broke ground on its new integrated aroma ingredients complex, which will house facilities to produce citral, citronellol and L-menthol. The aroma ingredients produced will be used as flavours and fragrances for the F&B, fabric and homecare and personal care industries. The RM1.5 billion complex will be developed in phases, where the first plants of the complex are expected to be fully operational in 2017.

This cutting-edge technological investment will make Malaysia an important hub in Asia Pacific for the world-wide supply of aroma ingredients.

In June 2015, the company started the construction of a production plant for 2-Ethylhexanoic Acid (2-EHAcid). The plants has started operation since 2016 with a total annual capacity of 30,000 metric tonnes. 2-EHAcid is a chemical intermediate used as a compound, for example, in the production of synthetic lubricants and oil additives. It is also used for functional fluids like automotive coolants, metal salts for paint dryers, plasticisers, stabilisers, catalysts and other applications in various industries including cosmetics.

In March 2016, the company began building a new world-scale production plant for highly reactive polyisobutene (HR-PIB) at the BASF PETRONAS Chemicals site. The plant, which will be the first of its kind in South East Asia with a total annual capacity of 50,000 metric tonnes of HR-PIB, is expected to start production in the fourth quarter of 2017. HR-PIB is an important intermediate product for the manufacturing of high performance fuel and lubricant additives, including additives for sludge prevention.

Source: BASF PETRONAS Chemicals Sdn Bhd.

Collaboration with academia

BOX 4-6

The Chemical Company of Malaysia Berhad (CCM) mooted the Programme CCM JATI *(Jalinan Universiti dan Industri)* in 2011 as one of its initiatives to boost productivity efforts among young graduates in addressing the growing concern of unemployment among pharmacy graduates.

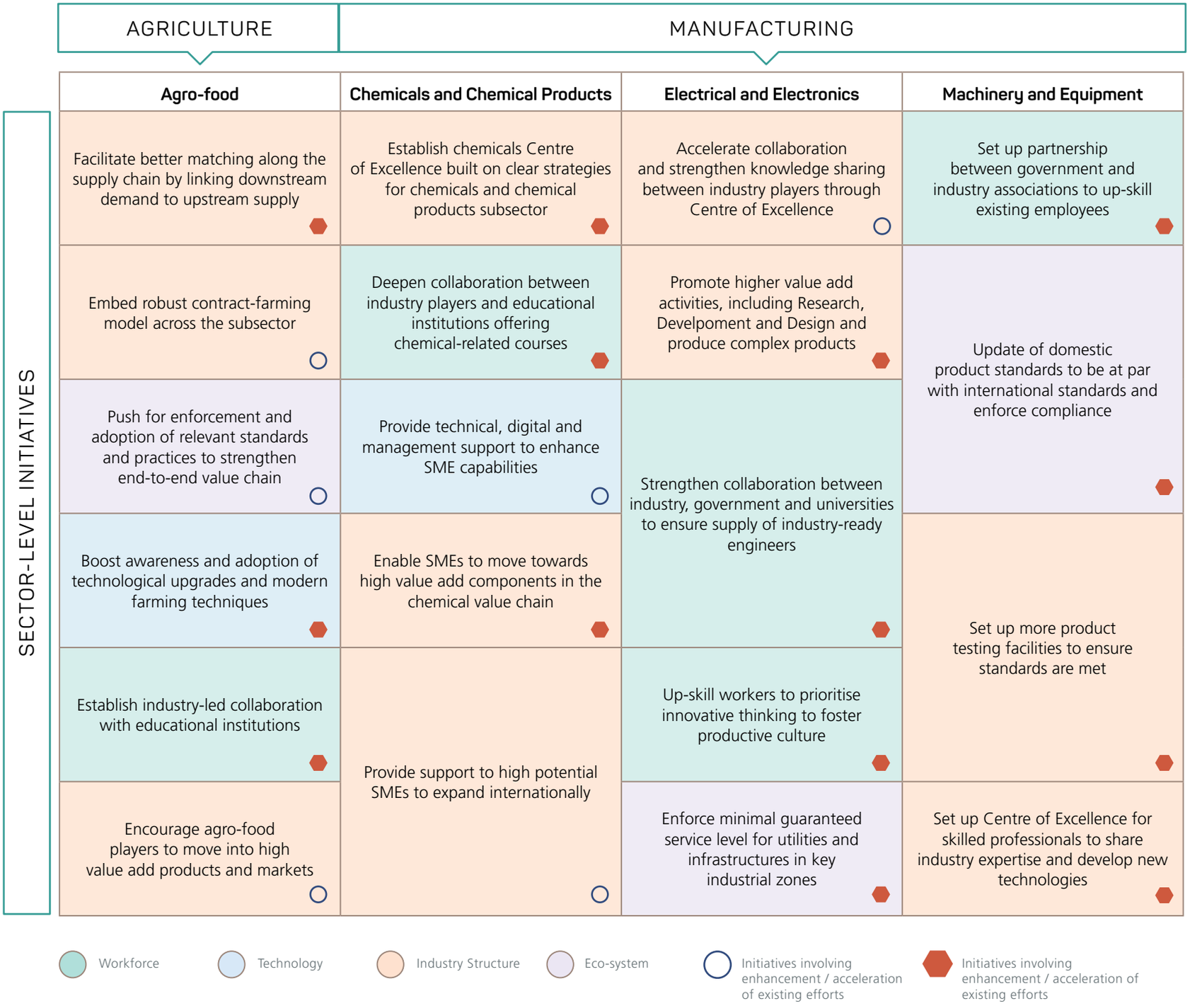
CCM JATI is a collaboration between CCM and public universities to train and groom pharmacy undergraduates on entrepreneurship in community retail pharmacies. It started off with Universiti Sains Malaysia (USM) as the pioneer university and expanded to Universiti Malaysia Sabah (UMS), Universiti Teknologi MARA (UiTM), International Islamic University Malaysia (IIUM) and Universiti Kebangsaan Malaysia (UKM).

This programme is a 3-year capacity building programme that offers pharmacy undergraduates a holistic immersion in the industry and empowers them with entrepreneurial capabilities as they venture into the working environment. They will be given exposure in marketing, business management and hands-on retailing through training and interaction with CCM professionals.

CCM JATI recruits 50 pharmacy undergraduates annually. Since its inception, more than 200 students have successfully undergone the programme. It targets to develop 500 pharmacy undergraduates to become competent entrepreneurs in community retail pharmacies by 2020.

Source: CCM Berhad.

Figure 4-18 OVERVIEW OF 44 SECTOR-LEVEL INITIATIVES ACROSS PRIORITY SECTORS



SERVICES

SECTOR-LEVEL INITIATIVES

Retail and F&B	Tourism	Private Healthcare	Professional Services	ICT
Provide support for digitalisation of business operations and build e-commerce capabilities	Strengthen collaboration efforts between industry and academia to match industry needs	Review policies to ease foreign skilled healthcare professionals work in the subsector	Provide input to colleges and universities to ensure curriculum and training are industry-relevant	Raise awareness of available incentives to ensure proper utilisation and adoption of ICT
	Establish a certification / accreditation programme for tourist sites, to boost tourist volume and improve service delivery	Set up networks to provide high-quality coordinated patient care to reduce medical errors and improve patient care quality	Address regulatory constraints to enable set up of alternative business models that are in line with global trends	Centralised and coordinate efforts between relevant agencies to ensure proper utlisation of initiatives and programmes
Promote opportunities for sharing economy	Product owners to review pricing system of sites	Develop and rollout a national database to facilitate patient transfer between public and private healthcare providers	Form cross-country professional services consortiums to increase capability to compete abroad	
Strengthen Retail and F&B competencies	Review industry standards and regulations with industry's input	Streamline regulations and ensure robust implementation of regulatory reforms	Encourage adoption of technology solutions, such as to track progress digitally rather than on paper	Strengthen collaboration between industry and academia to reduce mismatch of supply and demand of workforce
Provide assistance to Retail and F&B players to grow internationally	Align marketing strategy on targetted tourist segments	Strengthen coordination between medical schools and industry to ensure supply/demand match of professions	Encourage adoption of operational metrics and performance-linked KPIs by professional services firms	Improving the access Pricing Framework for providers

Workforce
Technology
Industry Structure
Eco-system
Initiatives involving enhancement / acceleration of existing efforts
Initiatives involving enhancement / acceleration of existing efforts

05

ENTERPRISE-LEVEL INITIATIVES

Firm-level intervention is imperative to address specific productivity constraints at the firm level and to ensure the achievement of industry and national productivity targets. This chapter will present the firm-level intenvention that will be undertaken in a systematic and structured manner, based on a diagnostic toolkit and using existing R&D intermediaries.

The previous two chapters focus on productivity initiatives at national and sector levels. This chapter presents the approach to address productivity at the enterprise level. The micro-level intervention is imperative to address specific productivity constraints at the enterprise level and to ensure the achievement of industry and national productivity targets. It will be undertaken in a systematic and structured manner through the Enterprise Productivity Programme. This programme is designed to provide a customised and hands-on approach to increase the productivity of enterprises based on a diagnostic toolkit and using existing research and development (R&D) intermediaries, such as the Public-Private Research Network (PPRN), PlaTCOM, Steinbeis and SIRIM-Fraunhofer. The results and key learning from the pilot programme for seven participating enterprises from the retail and food and beverages (F&B), agro-food and chemicals and chemical products subsector are also shared.

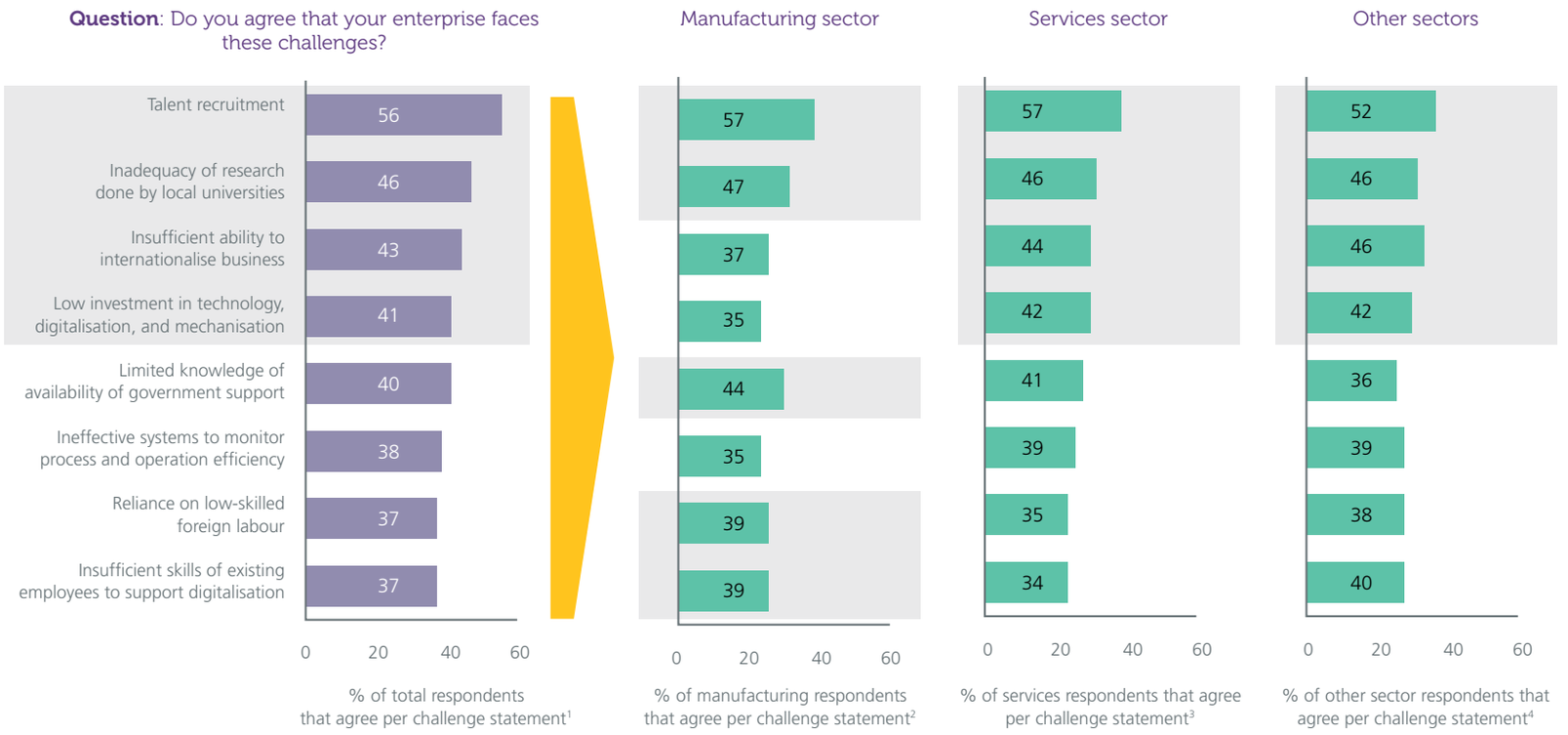
Enterprise Survey Results

A survey was conducted at the enterprise level to identify specific challenges faced by enterprises in improving productivity. Generally, enterprises are constrained by talent issues, the applicability of research, the ability to internationalise their businesses and investments in technology. For the manufacturing sector in particular, it is also constrained by insufficient knowledge of existing government support, a high reliance on low-skilled foreign labour as well as limited skills of existing employees to support further digitalisation of the business.

Figure 5-1 CHALLENGES THAT IMPEDE PRODUCTIVITY FOR ENTERPRISES

Top 4 productivity challenges: talent, research, ability to internationalise and investment in technology

Some nuances by sector, for example manufacturing also facing issues with foreign labour reliance



1. Includes chemicals and chemical products, electrical and electronics, machinery and equipment and other manufacturing industries.
2. Includes finance and insurance, ICT, private and public healthcare, logistics, tourism, retail and food & beverages, and professional services.
3. Includes agro-food, other agriculture, construction, civil service and other services / subsectors.
4. Respondents that agree includes the responses of "Strongly Agree" and "Agree".

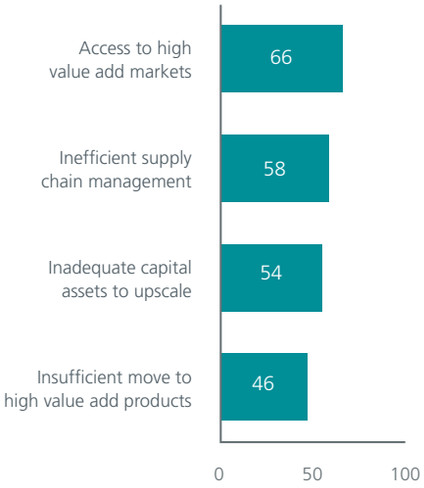
Source: Online Productivity Survey.

It is also important to disaggregate the findings between subsectors to address the sectoral differences. The survey illustrated that while agro-food enterprises are more likely to struggle with gaining access to high value add markets and managing their supply chain, enterprises in the retail and F&B subsector face large obstacles in obtaining capital to invest in technology. Lastly, enterprises in the chemicals and chemical products subsector struggle in building more international collaborations, which would help push their products into new markets.

Figure 5-2 CHALLENGES THAT IMPEDE PRODUCTIVITY FOR ENTERPRISES IN THE AGRO-FOOD, RETAIL AND F&B, AND CHEMICALS AND CHEMICAL PRODUCTS SUBSECTORS

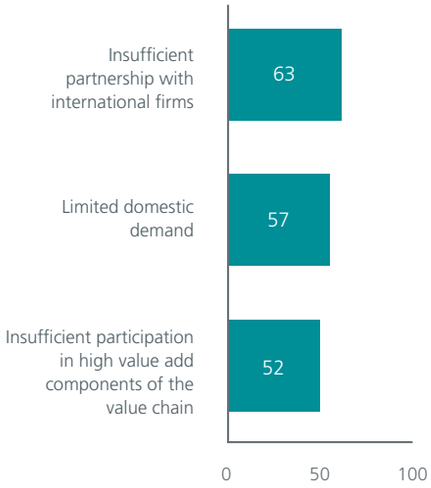
Agro-food enterprises struggle with access to high value add markets and supply chain management

Question: Do you agree that your enterprise faces these challenges in the agro-food subsector?



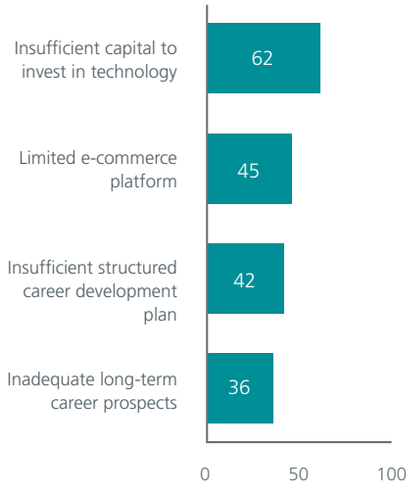
Chemical enterprises feel they lack the global collaborations to enter high value add markets

Question: Do you agree that your enterprise faces these challenges in the chemicals and chemical products subsector?



Retail and F&B enterprises are challenged by insufficient capital to make technology investments

Question: Do you agree that your enterprise faces these challenges in the retail and F&B subsector?



1. Refers to only agro-food respondents, N = 50 as of 22nd July 2016.
2. Refers to only chemicals and chemical products respondents, N = 59 as of 22nd July 2016.
3. Refers to only retail and F&B respondents, N = 163 as of 22nd July 2016.
Note: Respondents that agree includes the responses of "Strongly Agree" and "Agree".

Source: Online Productivity Survey.

Enterprise Productivity Programme

The Blueprint proposes an Enterprise Productivity Programme to enable enterprises raise their productivity performance based on a pilot programme. The pilot programme involved seven enterprises drawn from the three subsectors, namely retail and F&B, agro-food, and chemicals and chemical products. The programme was conducted by a productivity enablement team, which made up of public and private consultants as well as industry experts.

The Enterprise Productivity Programme consists of two key elements: an Enterprise Productivity Diagnostic (EPD) framework, which is a qualitative assessment of enterprise productivity, and a Productivity Metrics Toolkit, which is designed to enable enterprises collect and track their own productivity data.

Enterprise Productivity Diagnostic Framework

The EPD framework forms the first part of the Enterprise Productivity Programme. The framework has four main dimensions and was designed to group and diagnose the challenges faced at enterprise level as well as guide the recommendations (See Figure 5-3). The four dimensions within the framework are:

1. **Strategy and Leadership**
   This measure assesses the ability of an enterprise to grow sustainably via the application of a clear, coherent and consistent business strategy and operating model.

2. **Operational Excellence**
   This measure assesses the ability of an enterprise to drive efficiency by streamlining processes, and to deploy the right tools to support these initiatives.

3. **Talent Management**
   This measure assesses the ability of an enterprise to enable and encourage individual performance by raising employees' skill levels and improving recruitment and retention of staff.

4. **Customer and Product Experience**
   This measure assesses the ability of an enterprise to incorporate customer needs into the design of products and/or service offerings.

Figure 5-3 COMPREHENSIVE ENTERPRISE PRODUCTIVITY DIAGNOSTIC FRAMEWORK DEVELOPED FOR THE ENTERPRISE PRODUCTIVITY PROGRAMME

Using the information obtained from stakeholder interviews and best-practice benchmarks, a heatmap diagnostic was conducted for the enterprises participating in the pilot programme[1]. Evaluation scores in line with best-practice benchmarks have dimensions that are coloured green, scores that indicate a movement towards best-practice benchmarks are coloured yellow, and existing practices that require significant areas of improvements are coloured red. Using this diagnostic, the productivity enablement team proposed enterprise-specific initiatives for each dimension in the EPD framework. The initiatives were developed with the advice of industry experts and anchored on best-practice case studies.

Productivity Metrics Toolkit

The Productivity Metrics Toolkit forms the second part of the Enterprise Productivity Programme. During this phase, enterprises were introduced to operational productivity metrics that require tracking (see Figure 5-4). A dashboard was designed around these productivity metrics measures to ease the process of measuring and tracking of productivity performance for individual enterprises. Utilising this user-friendly and intuitive dashboard, enterprises are able to generate and track over time their unique productivity metrics. Simultaneously, this exercise raised awareness of the importance of productivity to growth and profitability of enterprises.

1. Seven enterprises were selected to be part of the pilot programme, based on their size, productivity gap and potential, and support from their senior management.

Figure 5-4 PRODUCTIVITY METRICS FOR CHEMICALS AND CHEMICAL PRODUCTS, AGRO-FOOD, AND RETAIL AND F&B SUBSECTORS

CHEMICALS AND CHEMICAL PRODUCTS

AGRO-FOOD

RETAIL AND F&B

OVERALL INDICATOR

VALUE ADD / EMPLOYEE (RM)

(EBITDA[1] + Total labour cost) / Total number of employees

OPERATIONAL INDICATORS

Capacity Utilisation Rate (%)	Actual output / Potential output * 100
Labour as % of Sales (%)	Total labour cost / Total sales
Machine Utilisation (%)	Operating hours / available hours * 100
Cycle Time (number of days)	Number of days it takes for a customer to receive a product

Capacity Utilisation Rate (%)	Actual Output / Installed Capacity
Labour as % of Sales (%)	Total labour cost / Total sales
Total Ouput / FTE[2] (RM)	Total Output / Total FTE[2]
Total Cost per Output (RM)	Cost of Goods Sold (Labour, Materials, Marketing, Packaging Costs) / Total Output

Sales / FTE[2] (RM)	Local retail sales / Total FTE[2]
Labour cost as % of sales	Total labour cost / Local retail sales
Sales / square foot (RM)	Local retail sales / Size of selling space (sq ft)
Sales / Total Fixed Assets (RM)	Local retail sales / Cost of total fixed assets

1. Earnings before interests, taxes, depreciation and amortization.
2. Full-Time Equivalent employees.

BOX 5-1

WHY DO WE NEED TO ASSESS PRODUCTIVITY PERFORMANCE?

Enterprises traditionally only think about profits and not productivity

Most companies feel that improving productivity would require high capital

This issue is particularly glaring in SMEs, where modernisation is deterred by high investment costs and high dependency on cash flow cycles

However, it is more sustainable for a company to focus on value add (VA)

Value add is the value created by the company and its employees

VA = Sales - Operating Costs = Profit + Wages

When value add increases, both profit and wages can increase over time. Employees will be motivated to work to achieve the company's goals.

Labour productivity can measure an employee's efficiency in generating value

Given how important workers are, companies should track efficiency by measuring their value add per employee

Which is labour productivity, that is how much output can be generated by one employee

The Pilot Programme

The selected enterprises for the pilot programme went through both stages of the Enterprise Productivity Progamme. Following this, the Productivity Enablement Team provided proposed initiatives and recommendations. An example of the analysis conducted is shared below for each of the deep-dive subsectors.

Example 1: Food and Beverages Enterprise Deep-Dive

A family-owned business within the F&B subsector aspires to grow their business internationally within the next few years. The business currently operates under several brands and has restaurants scattered around the Klang Valley. The different brands aim to target different consumer groups and the associated restaurants serve different cuisines.

Figure 5-5 HEATMAP DIAGNOSTIC EXERCISE FOR F&B ENTERPRISE PILOT EXAMPLE

The heatmap diagnostic conducted using the EPD framework revealed that the business performed well in the Strategy and Leadership dimension, while the Operational Excellence dimension showed practices that were moving in the right direction as the best-practice benchmarks (see Figure 5-5). However, the enterprise showed significant opportunities for improvement in two dimensions: Talent Management and Customer and Product Experience.

Summary of Pain Points and Recommendations

Strategy and Leadership

Pain points:
- Management style is still very hands-on, with the founder playing a significant role in all business decisions

Recommendations:
- The founder to lead all expansion efforts to prevent a dilution of the brand value
- The management team to pick only one strong brand to establish in overseas venture
- A clear line of succession should be established so that the company is not dependent entirely on the founder for continued operations

Operational Excellence

Pain points:
- The operations are only overseen by only one operations manager across all restaurants and this causes the manager to be spread quite thin
- Insufficient menu analysis results in cost inefficiency
- Insufficient supply chain management leads to inconsistent quantity and quality of raw ingredients

Recommendations:
- Area managers need to be appointed to assist in auditing of restaurants
- Set the maximum threshold for food ingredient cost to not more than 30-40% of total sales value
- Adopt IT systems for data-driven labour scheduling
- Establish a central kitchen to reduce the preparation time and costs of standard food products across different outlets

Talent Management

Pain points:
- Training programmes for employee development have low take-up rate
- Challenge in recruiting and retaining front-line staff, particularly Malaysian staff
- Existing incentives provided require restructuring to boost morale and reduce turnover

Recommendations:
- Ensure rising stars in the business are retained by monitoring attrition rate (for example, attrition rate of more than 50% raises a red flag)
- Emphasise transparency and flexibility of career path (for example, create a customisable roadmap outlining different career progression options for employees)
- Adopt flexible working hours for permanent staff as retention strategy for staff with household commitments

Customer and Product Experience

Pain points:
- Challenge in differentiating business from competitors and offering a unique value proposition

Recommendations:
- Run a company-wide initiative to get input from staff on improving customer service
- Conduct customer research to identify key customer segments and their occasion needs (such as holiday festivities) instead of segmenting based on demographics alone
- Place tech-savvy staff in charge of social media presence

Example 2: Agro-food Enterprise Deep-Dive

A small local business specialising in the manufacturing of instant coffee mixes and freeze-dried tropical fruits seeks to expand its reach in local and international markets. However, this industry is characterised by many small players competing in the same markets. The company is now trying to differentiate itself by offering more unique products to cater to niche markets.

The heatmap diagnostic conducted using the EPD framework revealed that the Strategy and Leadership as well as Talent Management dimensions showed efforts in the right direction (see Figure 5-6). However,

Figure 5-6 HEATMAP DIAGNOSTIC EXERCISE FOR AGRO-FOOD ENTERPRISE PILOT EXAMPLE

the enterprise showed significant opportunities for improvement in two dimensions: Customer and Product Experience, and Operational Excellence.

Summary of Pain Points and Recommendations

Customer and Product Experience

Pain points:
- A lack of strategic focus has resulted in insufficient research and development, which in turn has resulted in poor product development
- Government red-tape causes delays in standards compliance certification
- Facing regulatory issues in exporting certain products

Recommendations:
- Focus and boost research and development efforts to deliver products that cater to attractive market segments
- Collaborate with local competitors via alliances/consolidation to strengthen the trust between industry players
- Collaborate with government agencies to promote the reduction of restrictions and red-tape

Operational Excellence

Pain points:
- Inconsistent supply and quality of raw materials to meet demand
- Insufficient capital investments to increase automation and production levels
- Gaps in public infrastructure lead to unwanted and unexpected production downtime (for example, power outages)

Recommendations:
- Secure raw material supply via contract farming
- Develop in-house maintenance and crisis management team
- Establish strategic relationships with key stakeholders to raise automation and production levels

Example 3: Chemical Enterprise Deep-Dive

A local plastic manufacturer that specialises in injection moulding for plastic products mainly exports its products to Asia Pacific countries. The business is currently seeking to provide end-to-end solutions to its clients. Its Managing Director is currently the key person that drives and oversees the whole business and its operations.

The heatmap diagnostic conducted using the EPD framework showed that the Operational Excellence as well as Customer and Product Experience showed efforts in the right direction, while the Strategy and Leadership and Talent Management dimensions showed significant opportunities for improvement (see Figure 5-7).

Figure 5-7 HEATMAP DIAGNOSTIC EXERCISE FOR CHEMICALS ENTERPRISE PILOT EXAMPLE

Summary of Pain Points and Recommendations

Strategy and Leadership

Pain points:
- Heavy reliance on the Managing Director for direction and oversight
- Inadequate succession planning; there is no clear line of succession should the Managing Director leave the business

Recommendations:
- Formalise and document business plans and strategies
- Frequently refresh implementation plans to ensure effectiveness and improve business efficiency
- Launch succession planning efforts as soon as possible

Operational Excellence

Pain points:
- Procurement of a consistent supply of raw material is challenging, leading to long lead times
- There is a high reliance on manual assembly and packaging, with mechanisation efforts of these processes proving to be challenging
- Limited access to affordable domestic supply of raw materials limits the ability to explore new business options

Recommendations:
- Invest in rapid prototyping solutions that offer faster prototype turnover times so that less time is spent waiting and more time is spent on testing
- Invest in process control and automation systems to ensure that there is a smooth and seamless linkage between processes

Talent Management

Pain points:
- Productivity metrics are not formally tracked and monitored
- Inadequate operational training available to staff and operational knowledge is limited to the leadership
- Difficulty in attracting and retaining talent, especially in middle management

Recommendations:
- Engage with academia to explore apprenticeship and internship opportunities
- Introduce incentives to attract and retain middle managers
- Conduct more skill transfer sessions from senior staff
- Engage clients and suppliers to provide training to reduce the burden on leadership to provide training

Customer and Product Experience

Pain points:
- Over-reliance on key accounts, where a small number of customers made up an overwhelmingly large portion of revenue
- All research and development is carried out by the Managing Director or the Factory Manager
- Intellectual property associated with the mould design belongs to the client
- The business faces steep competition from cheaper production centres

Recommendations:

- Provide after-sales service, including product and design improvements
- Expand the capabilities of the research and development department
- Develop turnkey solutions that would facilitate in-house development of intellectual property that can serve a wider group of clients with minimal modification

Key Lessons from Productivity Pilot Programme

Overall, this pilot yielded key learnings across the board and also highlighted some key considerations for the subsequent roll out of enterprise studies:

1 **Enterprises typically monitor top line performance but do not actively track productivity metrics**

During the duration of the pilot study, enterprises struggled to provide the data required to calculate the productivity metrics. Hence, it is critical that the importance of tracking productivity metrics be continuously emphasised.

2 **Deep-dives are most effective when enterprise leaders aspire to grow the business and are receptive to improvements**

Throughout the pilot study, enterprise leaders who intended to scale up their businesses have showed more concern about productivity improvements. On the other hand, family-owned businesses which are less geared to expansion have shown slightly more resistance to adopting new work methods. Thus, the Blueprint suggests targeting enterprises that have clear growth aspirations, and that have shown openness to new working methods during the pilot phase.

3 **Involvement of industry experts is critical to provide specific insights and solutions**

Industry experts were engaged to support the Productivity Enablement Team during each enterprise study, enabling the team to benefit from these experts' unique positions in providing sector-specific insights and sharing best-practices to address the challenges raised.

4 **Focused conversations with multiple employees of different functions and levels help drive more open discussion of challenges**

Interviews across all levels of employees were conducted within the enterprises to understand the unique challenges. Small group conversations were most effective in facilitating open conversations, while separate conversations with mid- or working-level staff also yielded insights that top management may not have been willing to share as openly. Therefore, interview sessions should be conducted in a one-to-one or small group setting, with a small number of interviewers to facilitate more candid and open conversations. Separate interviews should be conducted with employees from different functions across all working levels to garner a more holistic view of the challenges.

Existing platforms can be utilised to help address the enterprise-level challenges. The PPRN, part of the Ministry of Higher Education (MOHE), facilitates the collaboration between university researchers and industry players in contract research. Intermediaries have also been established by the government, such as Steinbeis, SIRIM-Fraunhofer and PlaTCOM, to encourage industry players to innovate and improve their market competitiveness and productivity (see Figure 5-8). The intermediaries will assist in identifying the right business solutions, in terms of technology, process and business model improvements. These strategic alliances will accelerate the sharing of knowledge and innovative ideas, and ultimately boost company competitiveness and productivity.[2]

In the long-term, the rollout of the Enterprise Productivity Programme will be carried out through the sector Productivity Nexus. The structure of the sector Productivity Nexus will be explained in further detail in Chapter 6 of the Blueprint.

Figure 5-8 SCOPE OF WORK FOR INTERMEDIARIES[3]

The Public-Private Research Network
This initiative, introduced by MOHE, in collaboration with MTDC and SME Corp, aims to connect companies, especially SMEs, to researchers at the institute of higher learning to provide solutions. It will be a catalyst for innovation, knowledge-sharing and technological advancement for local companies.

PlaTCOM Ventures Sdn. Bhd.
PlaTCOM Ventures Sdn. Bhd. is the national technology commercialisation platform. It is a smart partnership between National Innovation Agency Malaysia (AIM) and SME Corp. The platform provides end-to-end facilitation services from concept to commercialisation of innovation, including access to funding, infrastructure, testing, validation, regulatory certification, market intelligence, technical expertise and commercialisation advisory.

Steinbeis Malaysia Foundation
Steinbeis Malaysia Foundation aims to connect academia to industry and promote effective and efficient cooperation in knowledge and technology transfers. It will enable academics and scientists to set up 'mini-entities' or 'transfer centres' to conduct short consultations, R&D and projects for private entities, more commonly for SMEs but also larger companies and MNCs. It provides an innovative platform for collaboration for business solutions and focuses on development of the end products.

SIRIM-Fraunhofer Programme
SIRIM-Fraunhofer Programme is a strategic collaboration with Fraunhofer Germany, which focuses on technology penetration and upgrading, technology audit, technology commercialisation as well as strengthening market access to boost productivity of SMEs. Through this programme, SMEs are able to develop new products and processes, solve technological problems, automate and mechanise their production processes, obtain new technologies, and access calibration, testing and certification services. The SIRIM Delivery Mechanism will identify industry problems through technology audit or value chain analysis, industry engagement and direct enquiries. SIRIM will customise solutions for the identified problems to enhance technology penetration and upgrading of SMEs. The delivery of the services and KPIs will be monitored to ensure the success of the programme.

2. 11MP, Strategy Paper 21: Translating Innovation to Wealth.
3. Ministry of Higher Education, National Innovation Agency Malaysia and SIRIM Berhad.

PRODUCTIVITY OPTIMISES OUR TIME AND RESOURCES, HELPING PEOPLE LEAD BETTER QUALITY LIVES

Productive individuals enjoy healthier work-life balance and collectively create a happier and healthier society

06

GOVERNANCE AND IMPLEMENTATION

A clear governance model will be set up to ensure the successful implementation of the Blueprint, undertaking four key roles – strategic oversight, advisory, coordination and monitoring, and implementation.

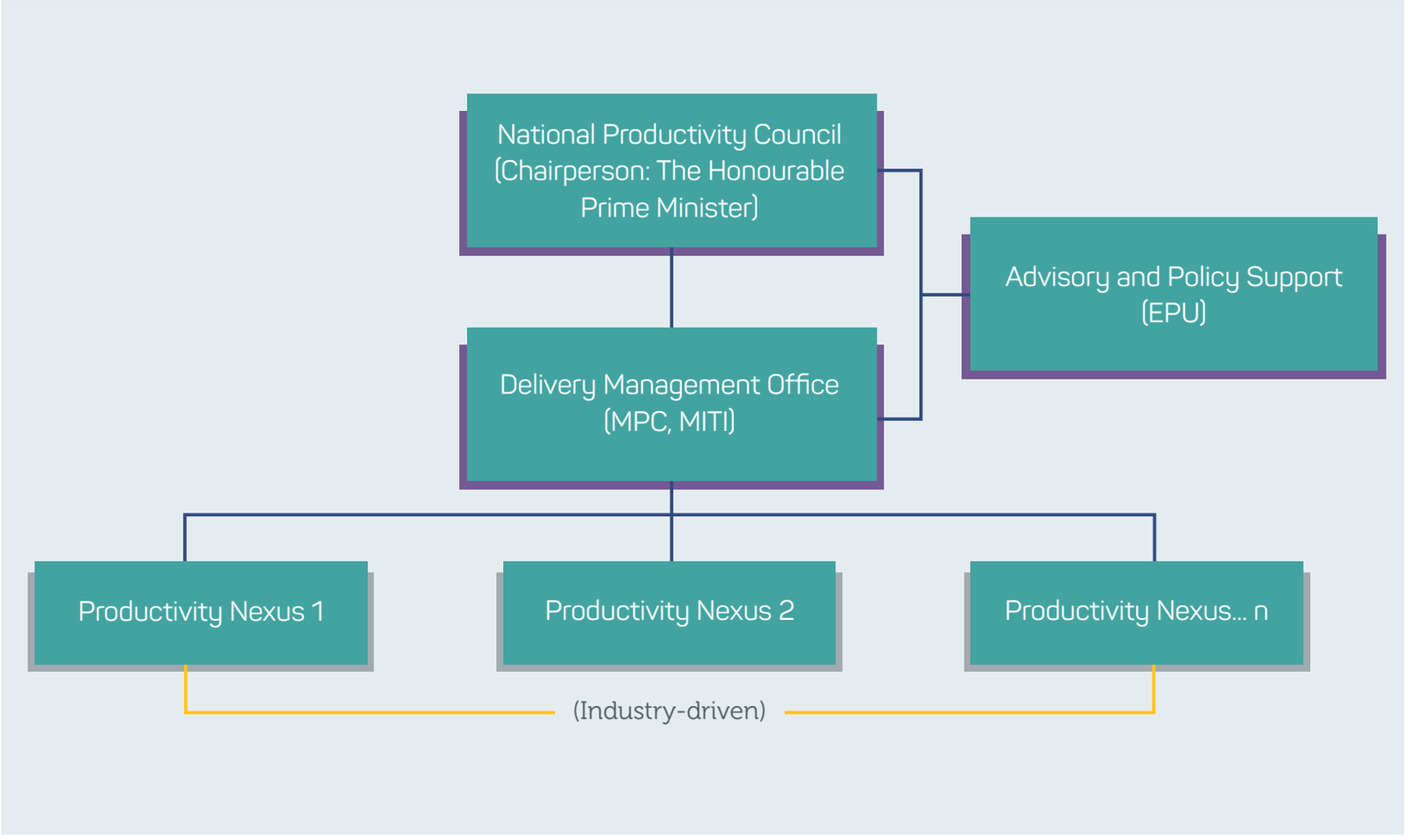
The Blueprint plans to ensure that productivity is addressed holistically. Three key challenges which are currently hindering the implementation of productivity efforts are:

- Multiple government agencies are addressing productivity-related matters and is fragmented
- Current productivity efforts are mainly driven by the government, with low involvement from private sector players
- Lack of coordination in implementation has limited the effectiveness of numerous ideas and programmes

The new governance model will have clear roles and responsibilities and be driven by public-private partnership to ensure accountability and involvement of both parties. It will also be well coordinated to ensure a cohesive effort, clear ownership and transparent outcomes. The governance model will minimise duplication and ensure it does not conflict with on-going efforts. Most importantly, it will be empowered with strong leadership and talent.

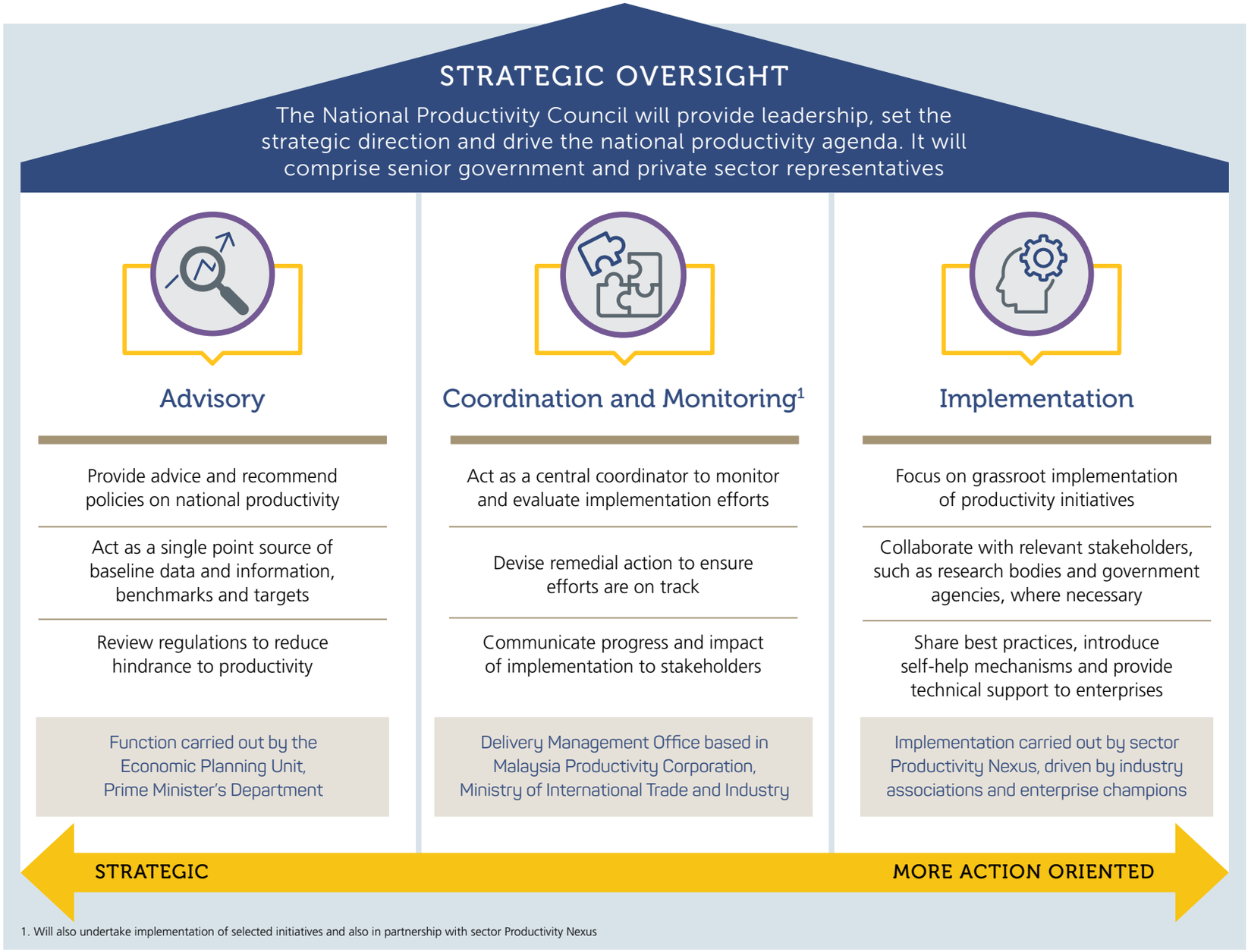
The governance structure is in Figure 6-1.

Figure 6-1 GOVERNANCE STRUCTURE OF MALAYSIA PRODUCTIVITY BLUEPRINT



The four key roles of the governance model are as outlined in Figure 6-2:

Figure 6-2 FOUR KEY ROLES OF THE GOVERNANCE MODEL



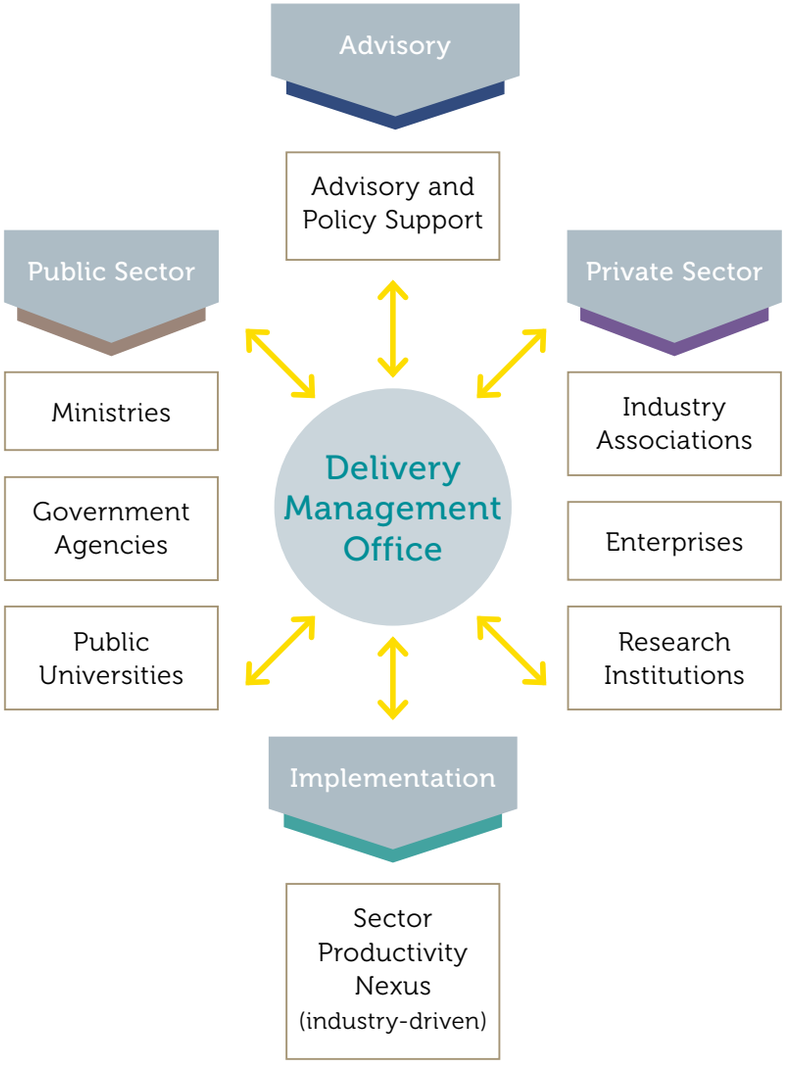
1. Will also undertake implementation of selected initiatives and also in partnership with sector Productivity Nexus

The **National Productivity Council (NPC)** will provide the leadership and strategic direction of the national productivity agenda. The NPC will be chaired by the Prime Minister and the council members will comprise of representatives from ministries and agencies, private sector and industry associations. The key role of the council will be to provide the strategic oversight and direction to ensure the implementation of the Blueprint.

Advisory and Policy Support will be provided by the Economic Planning Unit, Prime Minister's Department (EPU). It will serve as the main source of reference on national productivity. It provides a cross-cutting view of productivity and engage with various government agencies and universities. It will propose the overall strategy, targets at national and sector level to the NPC and ensure that key productivity data is collected, analysed and shared. Impact assessment studies, benchmarking and relevant analysis will be conducted at macro level to develop the knowledge depository on productivity and form the basis for national and sector policies. It will review regulatory hurdles that are hampering productivity.

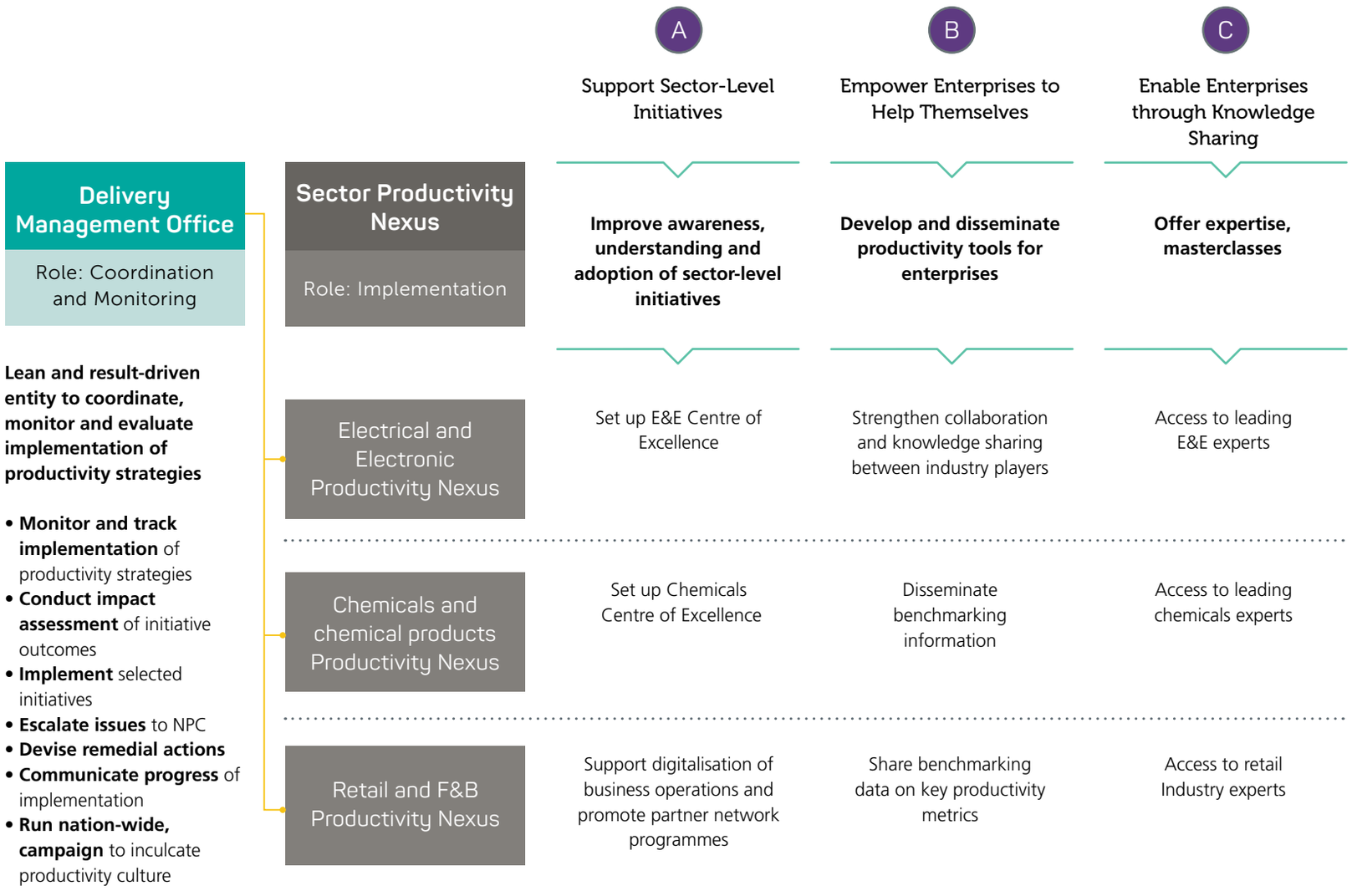
The **Delivery Management Office (DMO)** will ensure the successful implementation of the Blueprint by coordinating, monitoring and evaluating implementation of productivity strategies by both the public and private sector players. The office will work closely with both EPU and the sector Productivity Nexus to monitor and track the implementation of productivity initiatives at the national, sector and enterprise levels. Impact assessments will also be conducted to assess the outcomes of the initiatives, escalate issues that need to be resolved and devise remedial actions. The DMO will also implement specific initiatives on its own and in partnership with university and sector Productivity Nexus. The Malaysia Productivity Corporation (MPC) will be restructured and empowered to perform as the DMO, as shown in Figure 6-3:

Figure 6-3 A DELIVERY MANAGEMENT OFFICE TO COORDINATE INITIATIVES ACROSS VARIOUS STAKEHOLDERS



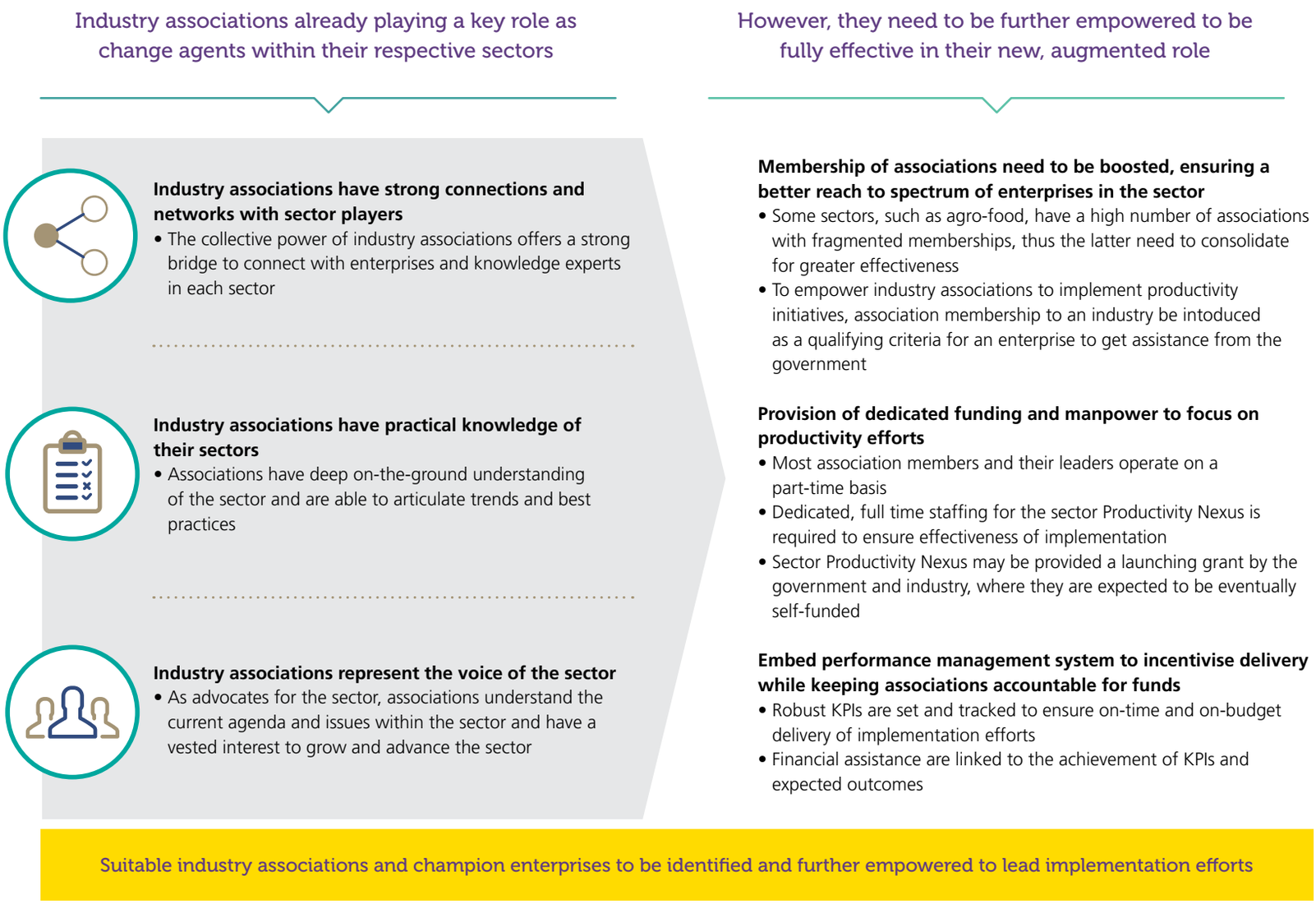
A hub and spoke model will be adopted to drive coordinated implementation efforts. The three main roles of the sector Productivity Nexus will be to improve awareness and adoption of sector-level initiatives, empower enterprises by developing and disseminating tools that will boost productivity, and foster knowledge sharing through productivity experts, who can help enterprises identify their productivity challenges and share best practices and solutions. The hub and spoke model is illustrated in Figure 6-4.

Figure 6-4 HUB AND SPOKE MODEL WILL FACILITATE COORDINATED EFFORTS AND EMPOWER PRIVATE SECTOR PLAYERS



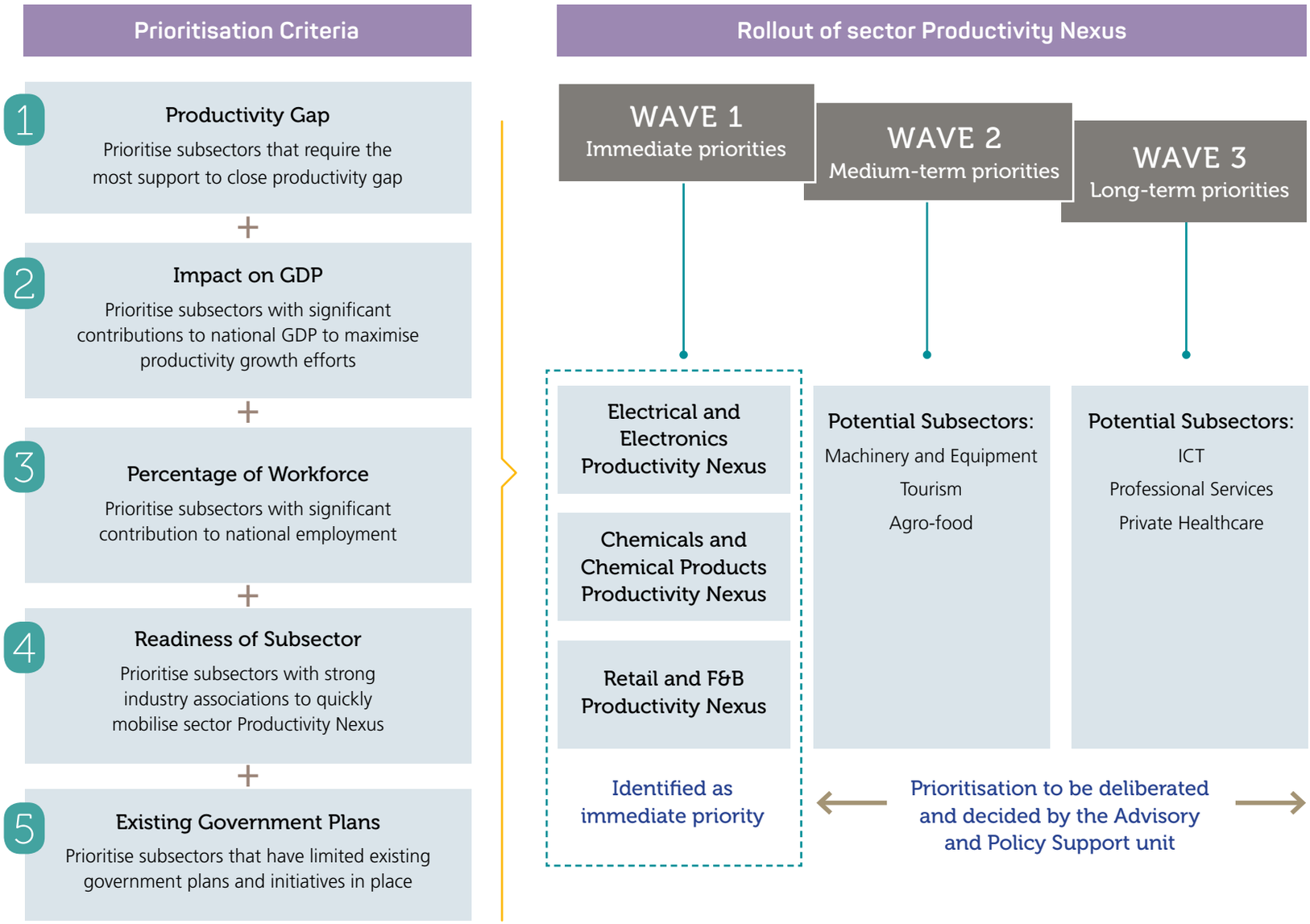
Industry associations and enterprise champions will be as change agents to drive the sector Productivity Nexus, given the need to have the private sector play a key role in implementing the Blueprint. Industry associations have strong connections and networks with sector players, have practical knowledge and represent the collective voice of the sectors. Moving forward, suitable associations and enterprise champions will be identified and empowered to enable them to lead effectively. Figure 6-5 below explains this in further detail:

Figure 6-5 INDUSTRY ASSOCIATIONS ALREADY PLAYING A KEY ROLE AS CHANGE AGENTS



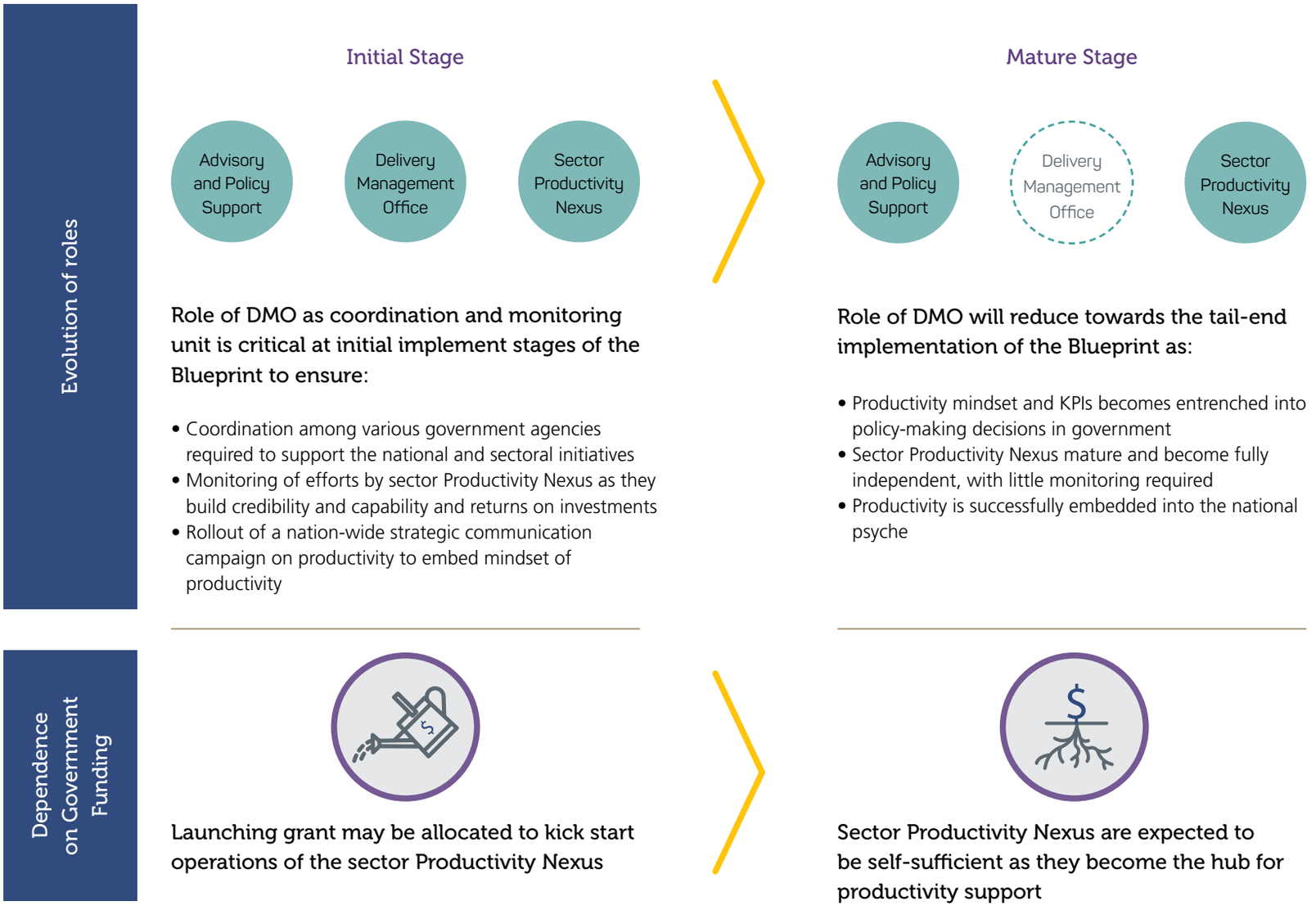
Sector Productivity Nexus for the key sectors will be established in phases (see Figure 6-6):

Figure 6-6 PRODUCTIVITY NEXUS TO BE ESTABLISHED IN WAVES



The governance model is expected to evolve as the Blueprint is implemented and the productivity agenda matures over time. Both the role of the DMO as well as the dependence on government funding are expected to reduce over time (see Figure 6-7):

Figure 6-7 GOVERNANCE MODEL TO EVOLVE AS BLUEPRINT IS IMPLEMENTED AND PRODUCTIVITY AGENDA MATURES OVER TIME



BOX 6-1

BENCHMARKING OF GOVERNANCE MODELS IN SELECTED COUNTRIES

	Canada			Australia			Singapore		
	Advisory	Coordination	Implement-ation	Advisory	Coordination	Implement-ation	Advisory	Coordination	Implement-ation
Entities	X	X	GO PRODUCTIVITY	Australian Government Productivity Commission	X	Australian Productivity Council	SPRING singapore	Singapore Productivity Association	SPRING singapore / Singapore Productivity Centre
History	• Started as a service of the Government of Alberta in 2008 • Transitioned to a private, not-for-profit corporation in 2011 • Expanded nationwide in 2014			• The Productivity Commission (AGPC) was formed in 1998 through an Act of Parliament • The Productivity Council (APC) was an association turned into a private business focused on productivity			• The precursor to the Standard Productivity and Innovation Board (SPRING) was founded in 1972 • The Productivity Association (SPA) was founded as an affiliation to SPRING • The Productivity Centre (SPC) was formed by SPA in 2013		
Role of Government Today	• Semi funded by the government of Alberta with aspirations to be self sustaining (less than 25% funding from the government, 75% from fees)			• Parliament funds AGPC and is responsible to address its findings and recommendations • APC is completely private, with no government intervention			• SPRING is a government body in charge of productivity • SPRING funds both SPA and SPC • SPRING personnel seconded as key management in both entities		
Pros	• Independence from government allows the freedom in prioritising productivity efforts • Private sector has influence to shape the interventions that matter to them			• Findings from AGPC are authoritative over the Government • APC free to choose weather to follow the recommendations or not			• Government has full control and coordination of strategy and implementation		
Cons	• Requires a driven private sector • Harder to raise private funds			• Limited coordination between the advisory and the implementation function			• Subject to government intervention/ agenda • Bureaucracy may become unwieldy		

Private Sector Government

Source: GO Productivity, Australian Government Productivity Commission, Australian Productivity Council, Singapore Productivity Association, Singapore Productivity Centre

07

CONCLUSION

Malaysia's productivity challenges are centred around talent and skills, current level of digitalisation, industry structure, regulatory hurdles, and insufficient productivity drive among enterprises. A holistic transformation is needed to propel the nation into the ranks of other advanced countries with sustainable economic growth. This is the goal of the Malaysia Productivity Blueprint.

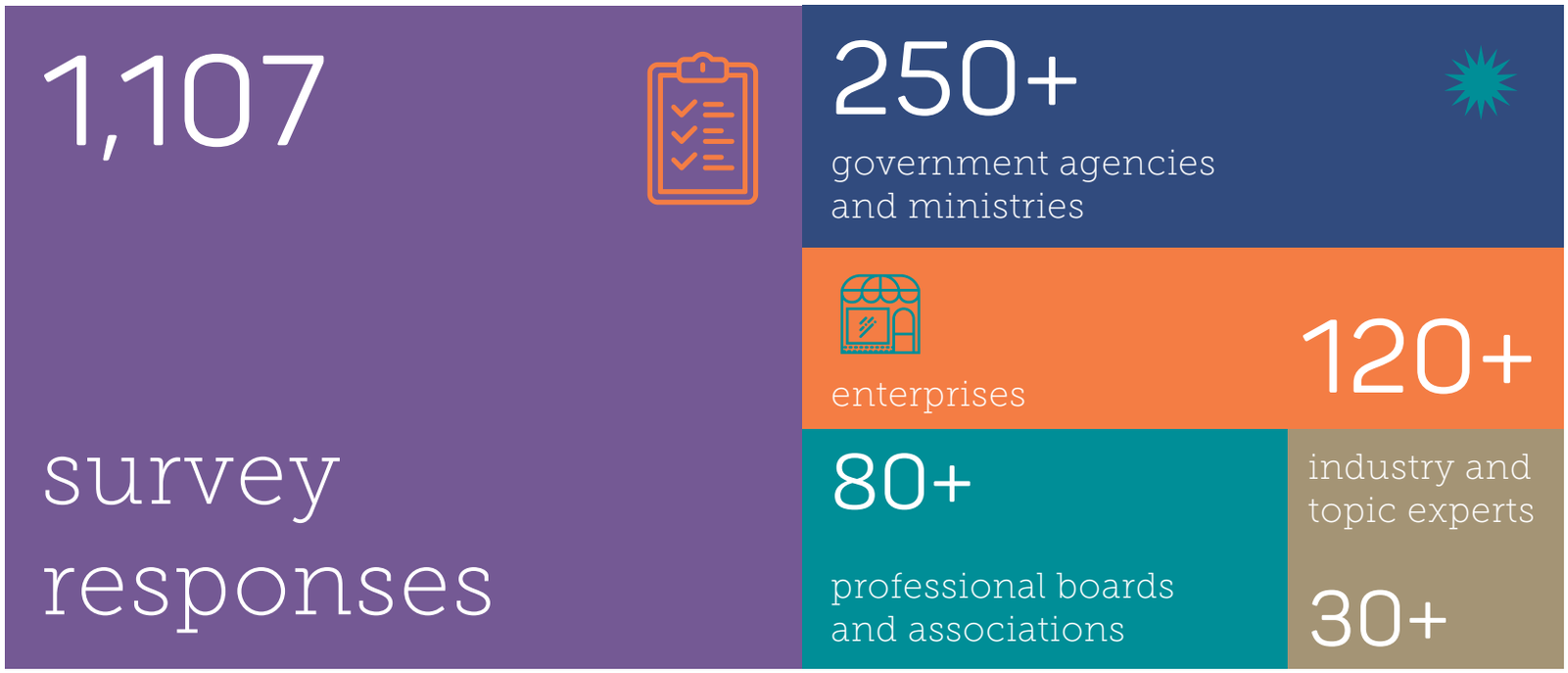
To achieve these outcomes, initiatives need to be focused, inclusive, consistent and well implemented. They need to be developed and driven at national, sector and enterprise levels to address the challenges that inhibit productivity growth. Five strategic thrusts have been identified to form the basis of the initiatives namely, Building a Workforce for the Future, Driving Digitalisation and Innovation, Making Industry Accountable for Productivity, Forging a Robust Ecosystem, and Securing a Strong Implementation Mechanism. At the national level, 10 national-level initiatives, 16 key

activities and 6 immediate priorities have been identified. At the sector level, 43 initiatives have been identified. They have been modelled and validated through extensive engagement with relevant stakeholders to ensure practical yet transformative actions.

In order to realise the Blueprint's aspirations, strong collaboration and partnership of all stakeholders is imperative. The new governance model is critical to ensure accountable and successful implementation of the Blueprint.

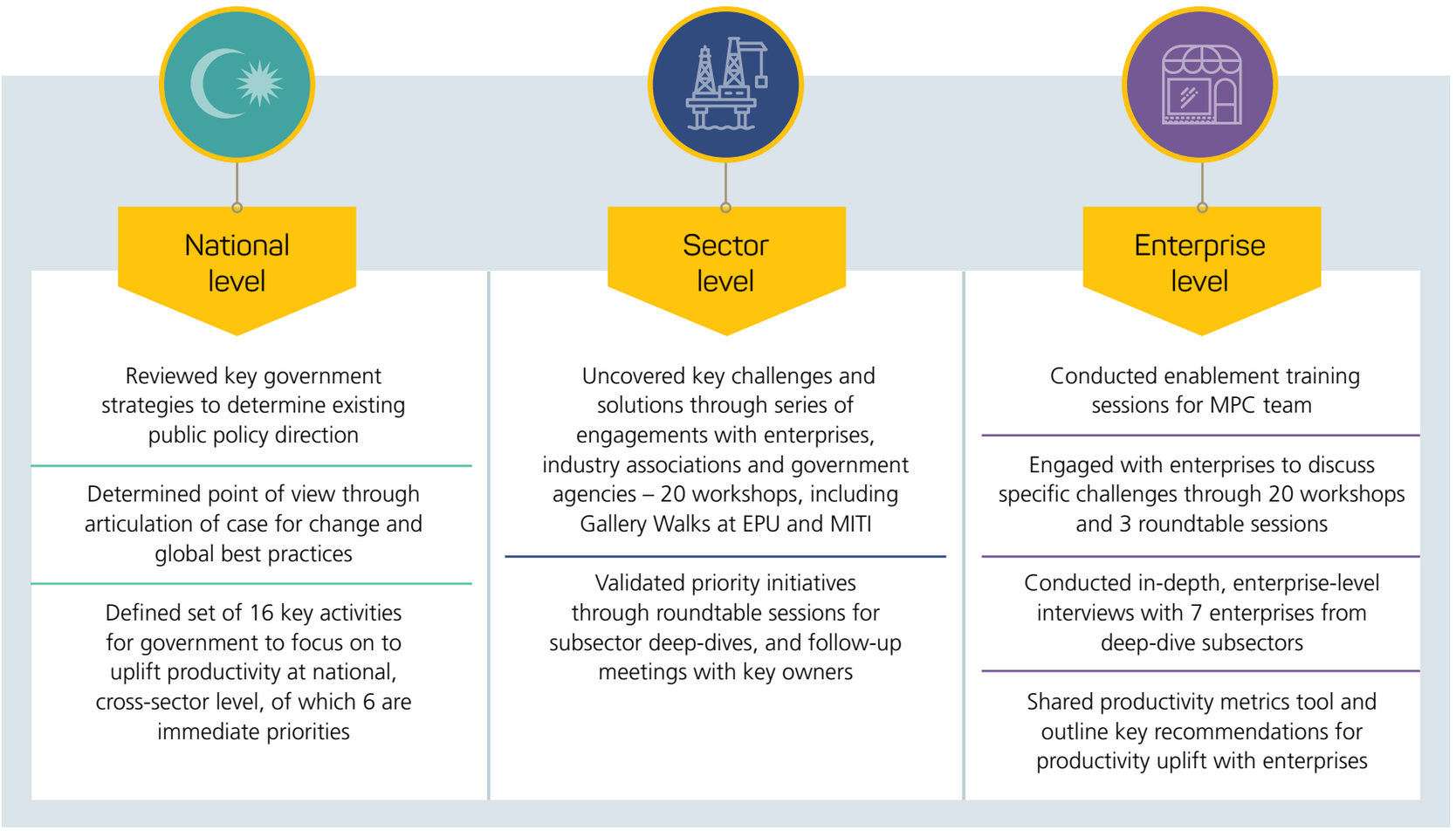
The outcome of the Blueprint will be a game changer for productivity improvement in Malaysia, shifting mindsets away from 'business as usual', enhancing competitiveness and productivity, and doubling the nation's productivity to become an advanced economy and inclusive nation.

APPENDIX



An extensive, collaborative and consultative process was employed over the duration of the development of the Blueprint. Perspectives from over 500 stakeholder groups, including ministries and government agencies, industry experts, professional boards and associations, universities, training institutes and enterprises on the ground were included in the design and development of the Blueprint. Insights from these stakeholders were gathered through workshops, focus groups and interviews. A national survey was also conducted to further understand the perspectives and challenges relating to productivity at the enterprise level, receiving 1,107 responses.

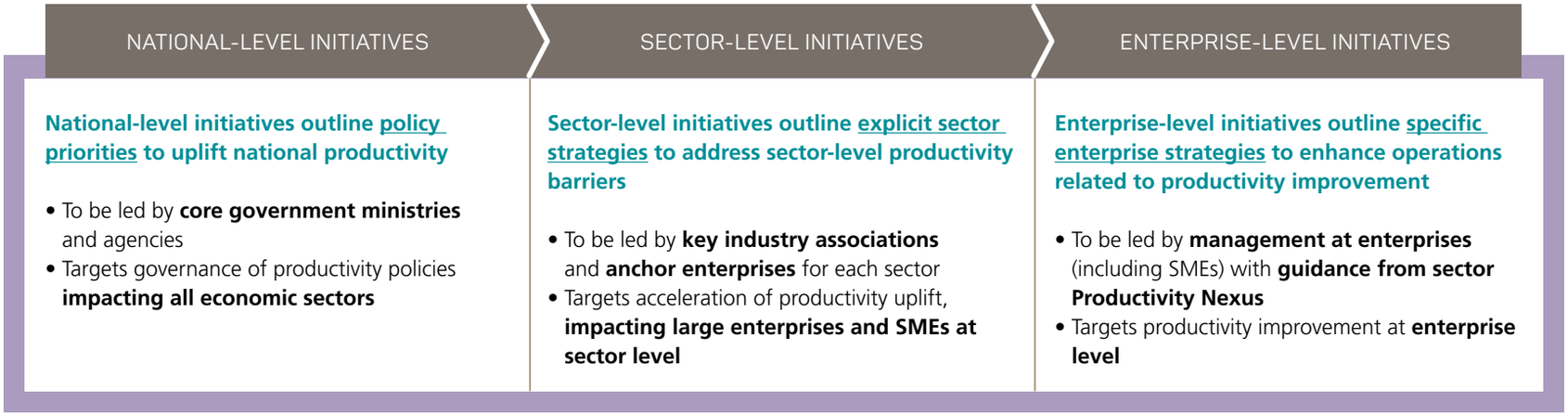
Figure A-1 APPROACH TAKEN TO IDENTIFY PRODUCTIVITY CHALLENGES AT NATIONAL, SECTOR AND ENTERPRISE LEVELS



A key feature of the Blueprint is its emphasis on addressing productivity in a holistic way, at the national, sector and enterprise levels. As such, the approach involved analysing productivity challenges and solutions at each level, enabling a system-wide implementation of programmes and initiatives moving forward (see Figure 7).

At the national level, key government strategies were reviewed in order to evaluate current challenges and identify immediate priorities.

Figure A-2 ADDRESSING PRODUCTIVITY HOLISTICALLY AT THE NATIONAL, SECTOR AND ENTERPRISE LEVELS



At the sector level, the main challenges were uncovered through analysis and engagement with key sector players, including enterprises, industry associations and government agencies, enabling the development of sector specific priority initiatives. Nine priority sectors were identified based on the presence of the following features:

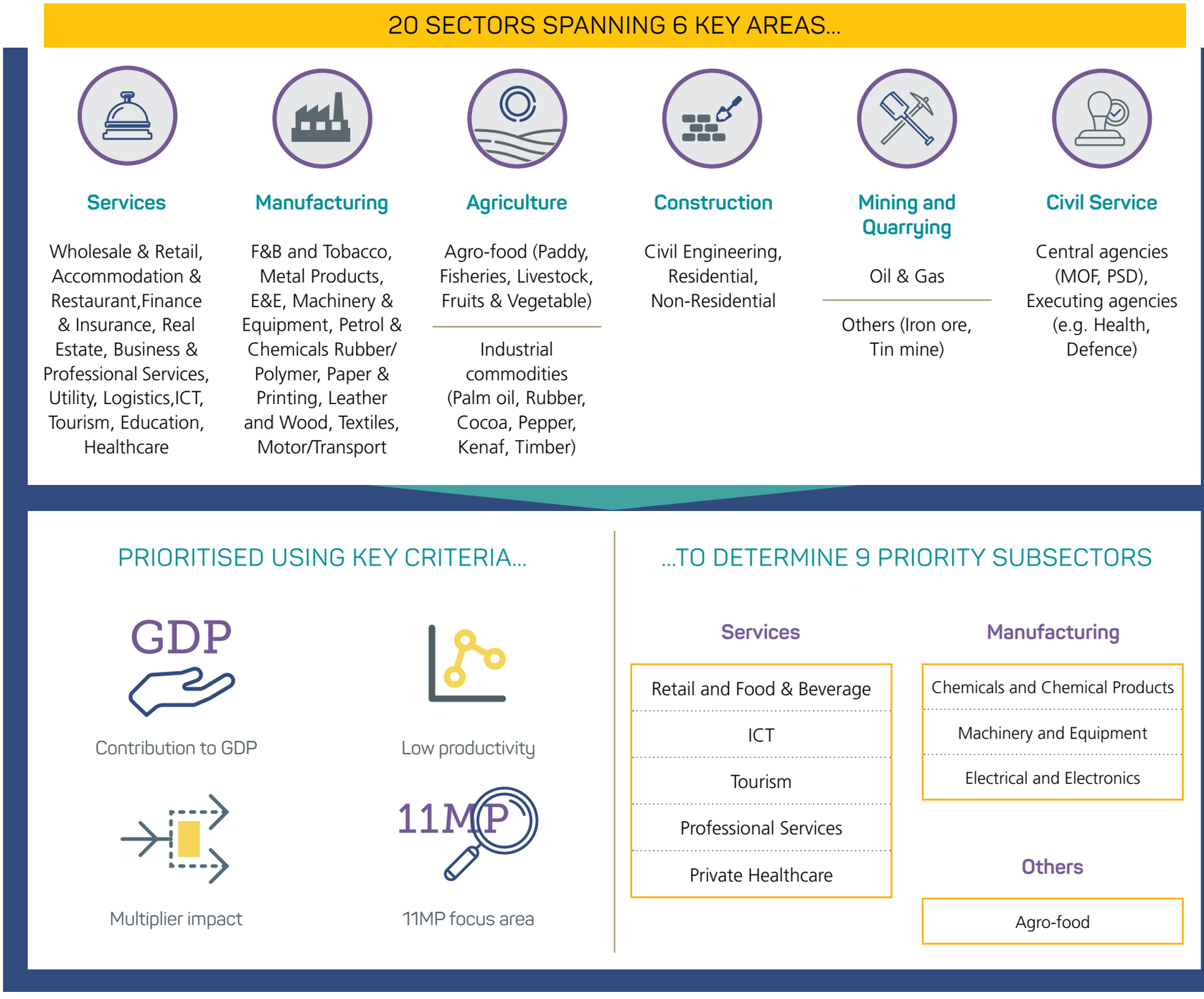
- Contribution to GDP
- Share of workforce
- Opportunity for productivity improvement
- High multiplier effect
- Readiness to implement productivity improvement

Out of the nine priority subsectors, three subsectors were selected as deep-dive subsectors, which were explored in more detail. These three subsectors, namely: retail and F&B, electrical & electronics, and chemicals and chemical products, were selected for the following reasons:

- Significant size and highly visible
- Underperformed productivity growth with large gaps when compared to the best-in-class sector benchmarks
- Strong stakeholder support
- Potential for quick-to-impact results

At the enterprise level, a selection of Malaysian enterprises was identified to be part of a pilot programme to diagnose productivity challenges. From the programme's findings, key recommendations were identified to raise the productivity of these enterprises.

Figure A-3 NINE PRIORITY SUBSECTORS IDENTIFIED AS NEEDLE-MOVERS



BOX A-1

NUMEROUS ENGAGEMENT SESSIONS HAVE BEEN HELD WITH GOVERNMENT, INDUSTRY, EXPERTS AND OTHERS

Workshop, Roundtables and Presentations

2 sets of workshops were conducted engaging with public and private sector stakeholders

- E&E, M&E, Chemicals, Tourism, Professional Services, Healthcare, Agro-food, Retail and F&B
- Workshop 1: Uncover productivity challenges
  - 9 workshops with over 246 attendees
- Workshop 2: Prioritise and further define initiatives
  - 6 workshops with almost 140 attendees

Roundtable sessions held for deep-dive subsectors

- Retail and F&B, Agro-food, and Chemicals and Chemical Products
  - 3 roundtables with over 80 attendees

Presentations held across various productivity topics

- World Economic Forum breakfast panel discussion on the Productivity Paradox, attended by almost 80 local client and WEF attendees
- Productivity and Competitiveness Forum by MPC, attended by around 200 attendees
- Productivity Expert Series on 4th Industry Revolution, attended by almost 70 attendees

Focus Groups and Interviews

Focus groups and interviews with public and private sector stakeholders for additional subsectors

- Oil & Gas, Utilities, Logistics, Civil Service, ICT, Financial & Insurance, E&E, Manufacturing
- Highlighted productivity challenges and identifed available plans in place to address them
- 6 focus group discussions with almost 70 attendees

Online Productivity Survey

Distributed to employees across all sectors covering topics:

- Importance of productivity, metrics tracking and usage
- Productivity challenges and potential productivity enablers
- Received input from 1,107 respondents, as of 22 July 2016
  - 237 respondents from manufacturing sector
  - 569 from services sector
  - 256 from other sectors
  - 45 from civil service

GLOSSARY

Acronym	Definition
11MP	Eleventh Malaysia Plan, 2016-2020
ASEAN	Association of Southeast Asian Nations
bn	billion
CAGR	Compound annual growth rate
CCM	Chemical Company of Malaysia
COE	Centre of Excellence
COFEMER	Comision Federal de Mejora Regulatoria
CSV	Creating Shared Value
DISF	Domestic Investment Strategic Fund
DOA	Department of Agriculture
DOSM	Department of Statistics Malaysia
E&E	Electrical and electronics
ECL	Enterprise Clean Loan
EPD	Enterprise Productivity Diagnostic
EPU	Economic Planning Unit, Prime Minister's Department
F&B	Food and Beverages
FDI	Foreign direct investment
FMM	Federation of Malaysian Manufacturers
FTE	Full-Time Equivalent
GAP	Good Agricultural Practices
GDP	Gross domestic product
GLC	Government-linked company
GMP	Good Manufacturing Practices
GRP	Good Regulatory Practices
HACCP	Hazard Analysis and Critical Control Points
HIP	High Impact Programme
HRDF	Human Resources Development Fund
ICE	Integrated Centre for Export
ICT	Information and Communication Technology
IIUM	International Islamic University Malaysia
IMD	Institute for Management Development
IT	Information Technology

Acronym	Definition
JATI	Jalinan Universiti dan Industri
JKPDA	Jawatankuasa Pelaburan Dana Awam
JPC	Japan Productivity Centre
KPI	Key performance indicator
M&E	Machinery and equipment
MATRADE	Malaysia External Trade Development Corporation
MCOs	Managed Care Organisations
MDEC	Malaysia Digital Economy Corporation
MFP	Multi-factor productivity
MIDA	Malaysian Investment Development Authority
MITI	Ministry of International Trade and Industry
mn	million
MNC	Multinational Corporation
MOA	Ministry of Agriculture & Agro-Based Industry Malaysia
MOF	Ministry of Finance
MOHA	Ministry of Home Affairs
MOHE	Ministry of Higher Education
MOHR	Ministry of Human Resources
MPC	Malaysia Productivity Corporation
MTDC	Malaysian Technology Development Corporation
MyGAP	Malaysia Good Agricultural Practices
NPDIR	National Policy on the Development and Implementation of Regulations
NPP	Nuclear power plant
p.a.	per annum
p.p.	percentage point
PCG	PETRONAS Chemicals Group
PEMUDAH	Special Task Force on Service Delivery (Pasukan Petugas Khas Pemudahcara Perniagaan)
PETRONAS	Petroliam Nasional Berhad
PLWS	Productivity-Linked Wage System
PPP	Purchasing Power Parity

Acronym	Definition
PPRN	Public-Private Research Network
PSD	Public Service Department
R&D	Research and development
R&D&C	Research, development and commercialisation
R&D&D	Research, development and design
R&D&I	Research, development and innovation
RM	Ringgit Malaysia
RONA	Return on net assests
SARI	Semi Aerobic Rice Intensification
SIRIM	Standards and Industrial Research Institute of Malaysia
SME Corp	SME Corporation Malaysia
SMEs	Small and medium enterprises
TPAs	Third Party Administrators
TV	Television
TVET	Technical and Vocational Education and Training
UiTM	Universiti Teknologi MARA
UKM	The National University of Malaysia (Universiti Kebangsaaan Malaysia)
UMS	Universiti Malaysia Sabah
USAID	The United States Agency for International Development
USM	University of Science, Malaysia (Universiti Sains Malaysia)
VA	Value add
WCY	World Competitive Yearbook
WEF	World Economic Forum
WTO	World Trade Organisation

ACKNOWLEDGEMENTS

The formulation of the Malaysia Productivity Blueprint benefited substantially from the extensive deliberations, engagements and dialogues with the Government, industry stakeholders and experts. The Economic Planning Unit, Prime Minister's Department would like to express its appreciation to the following organisations for their invaluable contribution in providing feedback and insight.

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In addition, none of the above would have been possible without the assistance of several industry associations. We extend our warmest thanks to the National Association of Smallholders Malaysia (NASH), Pertubuhan Peladang Kebangsaan (NAFAS), the Associated Chinese Chambers of Commerce and Industry of Malaysia, Persatuan Kebangsaan Pekebun-Pekebun Kecil Malaysia (PKPKM), Persatuan Industri Udang Malaysia, Persatuan Pembiak Kambing Malaysia (PPKM), Persatuan Nelayan Kebangsaan (NEKMAT) and the Malaysian Agriculture Producers Association from the agro-food subsector; the Bar Council Malaysia, the Board of Engineers Malaysia, the Institution of Engineers of Malaysia, Malaysia Institute of Accounting and Royal Institution of Surveyors Malaysia from the professional services subsector; the American Malaysian Chamber

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