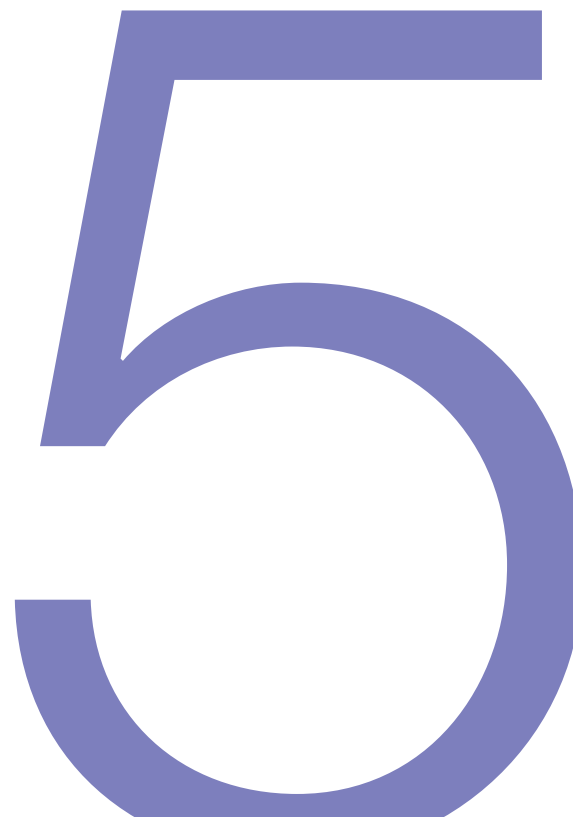


Accelerating human capital development for an advanced nation



Overview

Highlights Tenth Malaysia Plan, 2011-2015: Achievements

Looking back Tenth Malaysia Plan, 2011-2015: Progress

Creating more jobs and maintaining full employment

Improving legislations and institutions to transform the labour market

Mainstreaming and broadening access to quality TVET programmes

Upskilling the workforce through lifelong learning

Improving education delivery through better access and quality

Summary of focus areas Eleventh Malaysia Plan, 2016-2020

Moving forward Eleventh Malaysia Plan, 2016-2020

Focus area A: Improving labour market efficiency to accelerate economic growth

Focus area B: Transforming TVET to meet industry demand

Focus area C: Strengthening lifelong learning for skills enhancement

Focus area D: Improving the quality of education for better student outcomes and institutional excellence

Conclusion

Overview

Human capital development is a critical enabler for driving and sustaining Malaysia's economic growth. The availability of a skilled workforce is necessary to support the transition of all economic sectors towards knowledge-intensive activities, drive labour productivity gains, and attract investment into Malaysia. Furthermore, an efficient and inclusive labour market will resolve mismatches in workforce demand and supply, and enable all Malaysians to participate in and benefit from the nation's economic growth. Investments in education also play a pivotal role in improving social mobility and the wellbeing of the *rakyat*.

During the Tenth Malaysia Plan, 2011-2015, the Government introduced a range of measures to improve the labour market and transform its education system. Key achievements include the creation of 1.8 million new jobs that contributed to a decline in the unemployment rate from 3.3% in 2010 to 2.9% in 2015, which is considered full employment. The Government also implemented a minimum wage that is estimated to benefit 1.9 million wage earners. In education, there was an increase in enrolment across all levels, from preschool to tertiary. Annual intake in Technical and Vocational Education and Training (TVET) also grew from 113,000 in 2010 to 164,000 in 2013. Furthermore, major strategy documents such as the Malaysia Education Blueprint 2013–2025 (Preschool to Post-Secondary Education), the Malaysia Education Blueprint 2015-2025 (Higher Education), and the Talent Roadmap 2020 have charted out clear transformation journeys for the development of the human capital ecosystem.

The Eleventh Malaysia Plan, 2016-2020, will continue to push the agenda of producing human capital that is equipped with the right knowledge, skills, and attitudes to thrive in a globalised economy. The Government will focus on four areas: improving the efficiency of the labour market to accelerate economic growth, transforming TVET to meet industry demand, strengthening lifelong learning for skills enhancement, and improving the quality of the education system for better student outcomes and institutional excellence. The economic agenda outlined in the Eleventh Plan is expected to create 1.5 million jobs by 2020, with targeted improvements in labour productivity and reduced dependency on low-skilled foreign workers, both of which are a result of the continuous shift from labour-intensive to knowledge- and innovation-based economic activities. 60% of the jobs that will be created are expected to require TVET-related skills. In that regard, TVET is identified as a game changer in how Malaysia produces skilled talent at scale. Collectively, these focus areas will produce the world-class talent base that Malaysia needs in the final leg of its journey towards becoming an advanced nation.

Highlights

Tenth Malaysia Plan, 2011-2015: Achievements

2.9%

Unemployment rate by end of 2015, with the economy continuing to be in full employment

1.8 million

Number of new jobs that are expected to be created by end of 2015

1.9 million

Number of wage earners that have benefited from the minimum wage introduced in 2012

55%

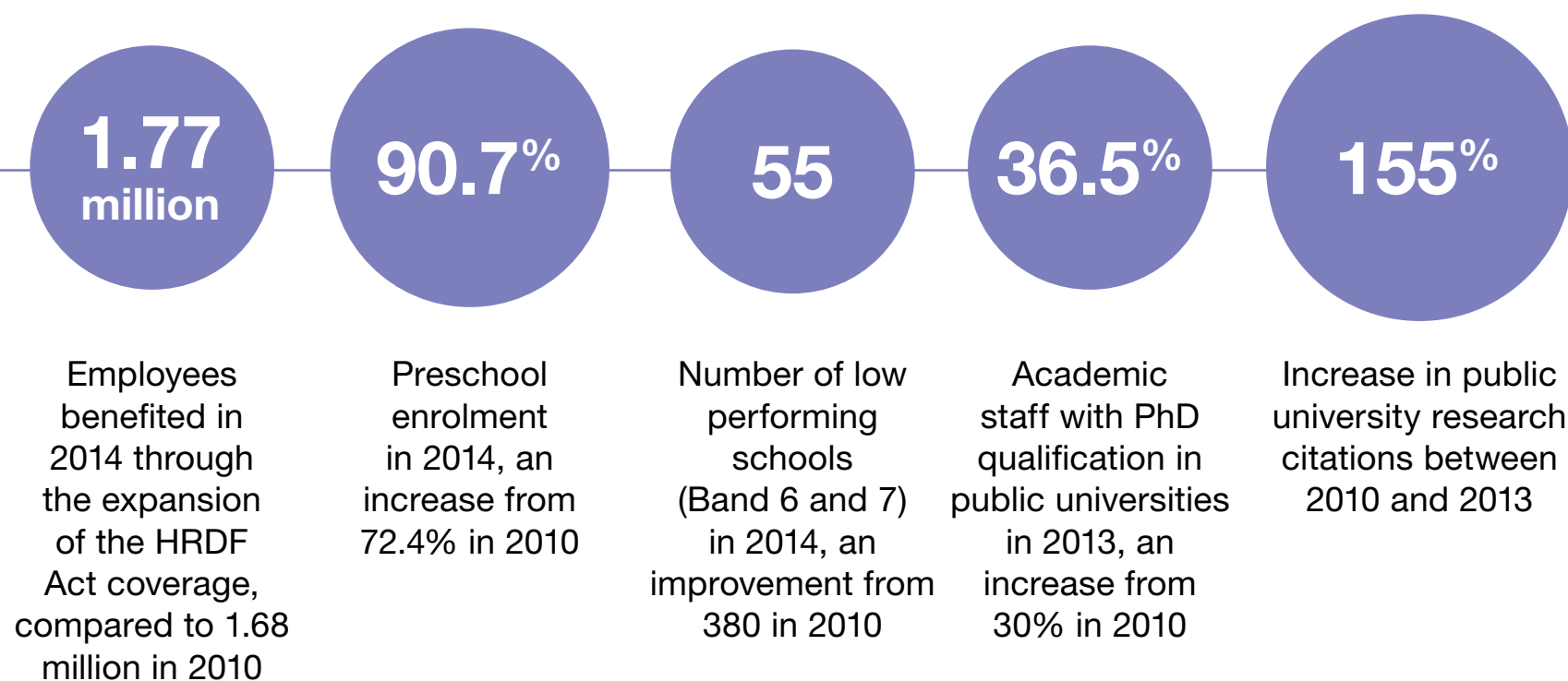
Female labour force participation rate in 2015, an increase from 46.8% in 2010

164,000

Intake in TVET programmes in 2013, an increase from 113,000 in 2010

Creating more jobs and maintaining full employment

Mainstreaming and broadening access to quality TVET programmes



Upskilling the workforce through lifelong learning

Improving education delivery through better access and quality

Looking back

Tenth Malaysia Plan, 2011-2015: Progress

The Tenth Malaysia Plan advanced the human capital development agenda, contributing to the growth of the economy and strengthening Malaysia's position as one of the most competitive countries in the region.

Malaysia achieved remarkable gains in human capital development during the Tenth Plan. Notable achievements include improving labour market institutions, mainstreaming TVET, promoting lifelong learning, as well as improving education system delivery. These achievements have contributed to the growth of the economy and strengthened Malaysia's position as one of the most competitive countries in this region.

Creating more jobs and maintaining full employment

The labour force grew at 2.8% per annum in the Tenth Plan and is expected to increase from 12.4 million in 2010 to 14.2 million in 2015. This growth is mainly driven by an increase in the working age population and higher female labour

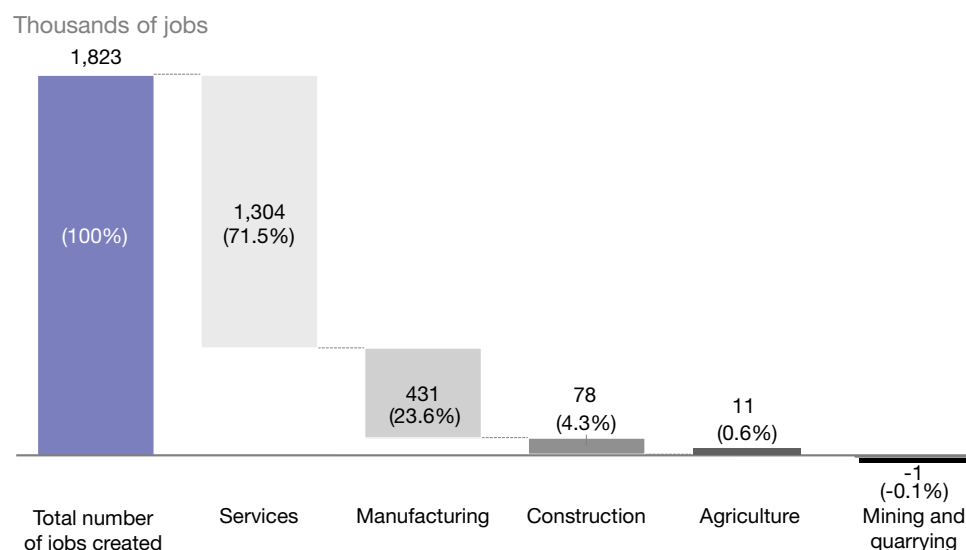
force participation rate, which is expected to increase to 55%¹ in 2015 from 46.8% in 2010. Employment grew by 2.9% contributing to a lower unemployment rate of 2.9% in 2015, compared to 3.3% in 2010. This is the equivalent to achieving full employment². During the Tenth Plan, the economy grew by 5.3% per annum and created 1.8 million new jobs, wherein 71.5% or 1.3 million jobs were in services and 23.6% or 431,000 jobs were in manufacturing, as shown in Exhibit 5-1.

Improving legislations and institutions to transform the labour market

During the Tenth Plan, concerted efforts were made to bring about institutional reforms in the labour market. Labour legislations, such as the

Exhibit 5-1

Jobs creation by sector, 2011-2015



Source: Economic Planning Unit and Department of Statistics Malaysia

¹ 2014 female labour force participation rate is 53.6%

² Based on the definition set by the Organisation for Economic Co-operation and Development (OECD), an unemployment rate below 4% is considered full employment.

Box 5-1

Demographic changes shaping the workforce

Demographic transitions influence overall human capital development in terms of both the supply and demand of the workforce. The population was 28.6 million in 2010 and is expected to increase to 30.5 million in 2015. However, the population growth rate declined to 1.3% as shown in Exhibit 5-2. This was due to the decrease in the total fertility rate¹ to 2.1 in 2015, which is equivalent to the replacement level².

The young population (0-14 years) is expected to decline from 7.8 million in 2010 to 7.7 million in 2015 while the working age population (15-64 years) is expected to increase from 19.3 million to 21 million during the same period, contributing to a demographic dividend³. The older population (65 years and above) is expected to grow at 4.5% per annum to reach 1.8 million in 2015.

The urban population is expected to increase from 20.3 million in 2010 to 22.7 million in 2015, with a growth of 2.2% per annum. The rural population, however, is expected to decline by 1.2% per annum from 8.3 million in 2010 to 7.8 million in 2015. In 2015, the urban population is expected to amount to 74.3% of total population, which will lead to an increase in demand for infrastructure, housing, education, and health facilities in urban areas.

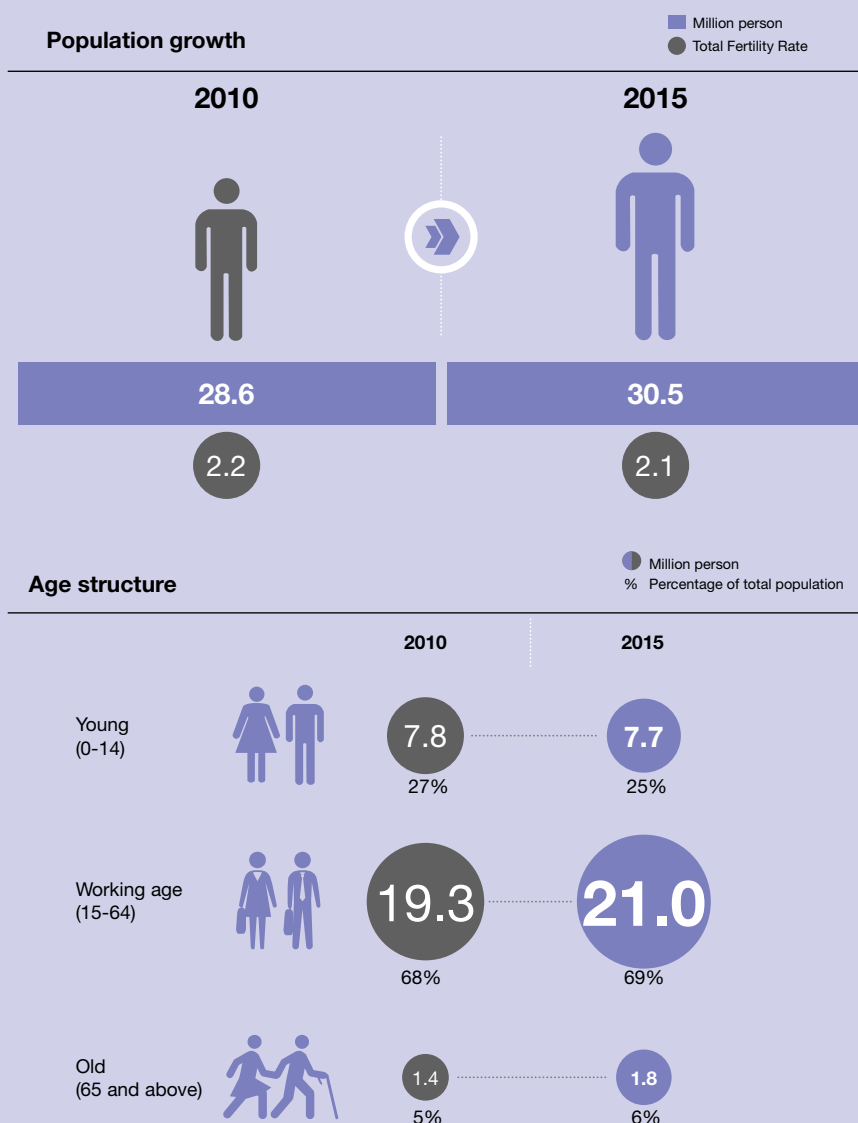
Source: Department of Statistics Malaysia

¹ Total fertility rate refers to the average number of children borne by a woman during her child bearing age of 15-49 years old. In 2013, it was 2.1 and is expected to remain until 2015.

² Replacement level is the level of fertility, normally 2.1 children for every woman in the child bearing age of 15-49, whereby a country experiences zero population growth. However, due to 'population momentum' the population will continue to register positive growth for several years.

³ A demographic dividend is achieved as a result of a growing population in the age cohort of 15-64 years that is active in employment, and their employment is able to cover the needs of their dependents who are outside the labour force. Demographic dividend is measured using the declining dependency ratio which shows the number of dependents (age 0-14 and age over 64) to the total working age population (age 15-64).

Exhibit 5-2

Population statistics 2010 - 2015

Employment Act, 1955, Industrial Relations Act, 1967 and Trade Unions Act, 1959 were reviewed on a regular basis to keep pace with the dynamics of the labour market. Furthermore, 1.9 million wage earners benefited from the introduction of minimum wage through the Minimum Wages Order in 2012.

Talent Corporation was established in 2011 to attract and retain the talent needed for an advanced nation. The Talent Roadmap 2020 enunciated strategies for Malaysia to be among the top 20 talent destinations in the world and focused on three dimensions: optimising Malaysian talent, attracting and retaining foreign talent and building a network of top talent. Since its inception, Talent Corporation has successfully attracted 3,110 Malaysian professionals under the Returning Expert Programme and approved 3,210 passes under the Residence Pass-Talent programme.

The National Institute of Human Resources was upgraded to the Institute of Labour Market Information and Analysis (ILMIA) under Ministry of Human Resources (MoHR) in 2012 to improve labour market information analyses and coordinate research on labour market issues. The Labour Market Information Data Warehouse (LMIDW) was established in 2013 to share key information such as projections of workforce supply and demand by economic sectors and development corridors in a single platform. The LMIDW has enabled the Government to make better evidence-based policies, as well as improve dissemination of information to industries, Institutions of Higher Education (IHEs)³, and other stakeholders including international organisations.

Mainstreaming and broadening access to quality TVET programmes

During the Tenth Plan, efforts to mainstream and broaden access to quality TVET were carried out to address industry demand for skilled workers and improve public perception of TVET as a career pathway. These efforts resulted in an increased intake from 113,000 in 2010 to 164,000 in 2013.

A TVET Task force led by the Malaysian Qualifications Agency (MQA) under Ministry of Education (MoE) and Department of Skills Development (DSD) under MoHR was established in 2012 to coordinate

delivery and improve efficiency among different institutions. One initiative involved the rationalisation of programmes offered by public TVET institutions to avoid duplication as well as enhance specialisation. In addition, the Skim Kemahiran dan Kerjaya 1Malaysia (SKK1M) was introduced in 2012 as a platform for TVET graduates to secure employment. 10,400 TVET graduates benefited from this scheme at the end of 2014.

Prior to 2011, the role of the Bahagian Pengurusan Kemasukan Pelajar (BPKP) under MoE, formerly known as Unit Pusat Universiti, was to coordinate all applications to public universities. In 2011, its mandate was expanded to include public TVET institutions to better reflect student preferences and the availability of training places. Based on existing tracer studies for IHEs and selected public TVET institutions, a Centralised Tracer Study system was customised and expanded to all public TVET institutions in 2013. The graduate employability data collected through this Study enabled better coordination in reporting programme outcomes.

22 Industry-Lead Bodies (ILB) were established under the DSD of MoHR to align the TVET curriculum with industry requirements and prepare the National Occupational Skills Standard (NOSS). A total of 582 NOSS and 16 Occupational Analysis were developed for reference by TVET institutions during the Tenth Plan. The National Dual Training System (NDTS) which provides industry-oriented workplace training has benefited 63,000 employees since its introduction in 2004. 38,000 employees benefited during the Tenth Plan including 12,835 youth who had newly entered the labour market.

A big shift in TVET delivery was driven by the conversion of the existing 72 Vocational Schools and eight Technical Schools run by the MoE into vocational colleges, as well as the setting up of eight new colleges. These new institutions offer students the opportunity to begin TVET education as early as 16 years and to graduate with a diploma. From 2011 to 2014, 19,747 students enrolled, with the first batch of 2,700 students expected to graduate in 2016. The vocational college curriculum is also offered in partnership with other public TVET institutions including Institut Latihan Perindustrian (ILP), under MoHR.

³ Institutions of Higher Education (IHEs) are defined under the Universities and Universities Colleges Act 1971 as public universities and as private universities and university colleges in the Private Higher Educational Institutions Act 1996. Community colleges and polytechnics are TVET institutions.

The capacity of the Centre for Instructor and Advanced Skill Training (CIAST) was expanded by establishing eight new satellite campuses. This resulted in the doubling of the number of instructors with Vocational Instructor Certifications (VIC) from 1,460 in 2010 to 3,060 in 2014.

Upskilling the workforce through lifelong learning

Under the Tenth Plan, lifelong learning focused on skills upgrading and continuous professional development for employees. The provisions of the Skills Development Fund (SDF) were expanded in 2011 to offer loans to employees for skills upgrading, which benefited 3,424 employees since 2011 until 2014. In addition, skills upgrading programmes for employees of small and medium enterprises (SME) have benefited 32,850 employees as of 2014.

The PhD Industry Programme is an industrial based research alternative to the conventional PhD. To date, 177 candidates from 30 industries have benefited from this full-time postgraduate programme with candidates spending most of their research time in their respective industry-based organisations.

The Human Resource Development Fund (HRDF) Act, 2001, encourages employers to retrain and upgrade the skills of their employees, apprentices and trainees based on their business needs.

Exhibit 5-3

Comparison of HRDF Act coverage between 2010 and 2014

Economic sector	2010			2014		
	Sub-sectors	Employers	Employees	Sub-sectors	Employers	Employees
Mining and quarrying	-	-	-	2	14	2,710
Manufacturing	23	6,946	920,324	23	7,009	957,172
Services	21	7,170	759,387	38	7,459	805,610
	44	14,116	1,679,711	63	14,482	1,765,492

Source: Human Resources Development Fund (HRDF)

The Fund was expanded to additional subsectors⁴, thereby increasing its coverage from 1.68 million employees in 2010 to 1.77 million in 2014, as shown in Exhibit 5-3.

Improving education delivery through better access and quality

Preschool to post-secondary

The Government intensified collaboration with key stakeholders, particularly the private sector, to provide access to quality education for all children. This included providing grants and fee assistance for private preschool operators, which helped increase enrolment for children aged 4+ to 5+ from 72.4% in 2010 to 90.7% in 2014.

The Literacy and Numeracy Screening (LINUS) programme was introduced in 2010 to ensure every child is literate and numerate after their first three years of schooling. Between 2010 and 2012, the programme increased Bahasa Melayu literacy from 84.9% to 99.8% and numeracy skills from 90.9% to 99.9%. In 2013, LINUS was expanded to include English literacy, improving Year One students' English literacy from 50% to 63% within four months.

The Government identified 20 schools in 2010 as High Performing Schools (HPS) based on stringent criteria, including academic performance and co-curricular achievements. These schools were given autonomy and incentives to create innovative learning environments that maximise student potential. By 2014, the total number of HPS had increased to 128 schools, benefiting over 100,000 students.

The Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education) or MEB, launched in 2013, outlines 11 shifts (described in Box 5-2) to achieve universal enrolment from preschool to secondary level, raise the quality of the national education system to the top third of countries globally, halve student achievement gaps, foster national unity and maximise the Government's return on investment. The ultimate aim is to develop Malaysians with

⁴ There are 19 sectors under the Malaysia Standard Industrial Classification (MSIC) which comprises of 88 subsectors. Under the Eleventh Plan, the HRDF Act plans to cover all subsectors except Construction (which will be under CIDB).

Box 5-2

The Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education)

In 2013, the Government launched the MEB, outlining a comprehensive transformation programme for students from preschool to post-secondary. The Blueprint evaluates the performance of the current system along dimensions of access, quality, equity, unity and efficiency, and defines 11 shifts to raise the quality of the national education system. These shifts are set out in Exhibit 5-4.

The education transformation is sequenced in three waves. Wave 1 (2013-2015) aims to turn around the education system by raising teacher quality and improving student literacy. Wave 2 (2016-2020) focuses on accelerating the improvement of the education delivery system, whereas Wave 3 (2021-2025) will focus on increasing operational flexibility to cultivate a peer-led culture of professional excellence. This in turn will create a self-sustaining system that is capable of innovating and achieving greater heights. The Education Performance and Delivery Unit (PADU) was established in 2013 as a unit under the Ministry of Education to facilitate, support, and drive the delivery of the Blueprint.

Exhibit 5-4

11 Shifts of the MEB

the knowledge, critical thinking skills, leadership skills, language proficiency, ethics and spirituality, and national identity to succeed in the 21st century.

Malaysia has continued to improve access to primary and secondary education. The primary education enrolment rate increased from 95.7% in 2010 to 97.9% in 2014, while the gap in enrolment rates between boys and girls has been reduced from 1% to 0%. At the secondary level, the enrolment rate increased from 88.1% in 2010 to 90% in 2014.

In 2011, the new Standard Curriculum for Primary School which emphasised Higher Order Thinking Skills (HOTS) was introduced to encourage students to be more critical and creative problem solvers. The forthcoming Standard Curriculum for Secondary School places a similar emphasis on the teaching and learning of HOTS. To support these changes, the MoE rolled out programmes such as iThink to train students and teachers in the use of creative thinking tools. This emphasis on HOTS is expected to improve student outcomes in the Programme for International Student Assessment (PISA) and Trends in Mathematics and Science Study (TIMSS) in 2016.

Higher education

Enrolment increased across all levels of study in public universities, private universities and university colleges between 2010 and 2013, as shown in Exhibit 5-5. Enrolment in PhD programmes increased by 56.3% from 2010 to 2013. At the masters level, enrolment increased by 31.7% and enrolment for bachelor programmes surpassed the half million mark, representing an increase of 7% from 2010 to 2013. In addition, as shown in Exhibit 5-6, in 2013, 53.6% or 560,360 students were enrolled in public universities and 46.4% or 484,960 students in private universities and university colleges. In the first three years of the Tenth Plan alone, enrolment in public universities increased by 21%, making them the largest provider of tertiary education in the nation.

Academic performance for students in public university bachelor programmes improved with 17.5% of total graduates attaining Cumulative Grade Point Average (CGPA) scores of 3.49 and above in 2013, as compared to 13.6% in 2010, as shown in Exhibit 5-7. This represents an increase of 31.7% between 2010 and 2013. In 2013, 75.5% of public university graduates and 73.2% of private university graduates

were found to have either secured employment when the tracer study was conducted, decided to continue further studies, or were awaiting job placement, as shown in Exhibit 5-8.

Total academic staff in public universities increased from 26,700 in 2010 to 33,140 in 2013. Additionally, total number of academic staff with PhD qualification in public universities increased by 31.6% from 2010 to 2013, as shown in Exhibit 5-9. In 2013, four out of five Malaysian Research Universities (MRUs), namely Universiti Malaya, Universiti Sains Malaysia, Universiti Putra Malaysia and Universiti Teknologi Malaysia exceeded the 50% target set for academic staff with PhD qualification while seven out of 15 non-MRUs surpassed the 30% target. The higher ratio of academic staff with PhDs will contribute to an improvement in university rankings.

Public universities made big strides in research publications and citations. From 2010 to 2013, total publications increased by 56% and citations by 155%, as shown in Exhibit 5-10. A total of 4,030 patents were filed by MRUs and 314 patents were granted between 2010 and 2013 as shown in Exhibit 5-11. Moreover total patents owned by MRUs have also increased. In 2013, 75 products were commercialised as compared to 36 products in 2007.

* * *

Despite the remarkable gains achieved during the Tenth Plan, key challenges remain. While the number of jobs increased, most of them were in semi-skilled occupations, which in turn contributed to relatively low labour productivity gains. Additionally, the compensation of employees⁵ to GDP is low in comparison with other middle- and high-income countries. The supply of TVET graduates – both quality and quantity – is still not fully aligned with industry demand, and TVET is still perceived by students to be a less attractive pathway. More effective lifelong learning programmes are required to support workforce demand for ongoing upskilling. Finally, substantial improvements on a range of levers from the quality of teachers and academic staff, to the governance and operations of schools and IHEs are required to improve the performance of the education system on the dimensions of access, quality, equity, unity, and efficiency.

⁵ Compensation of employees refer to the total remuneration (wages and salary), in cash or in kind, payable by an enterprise to an employee.

Exhibit 5-5
Enrolment by level of study in public universities, private universities and university colleges, Number of students

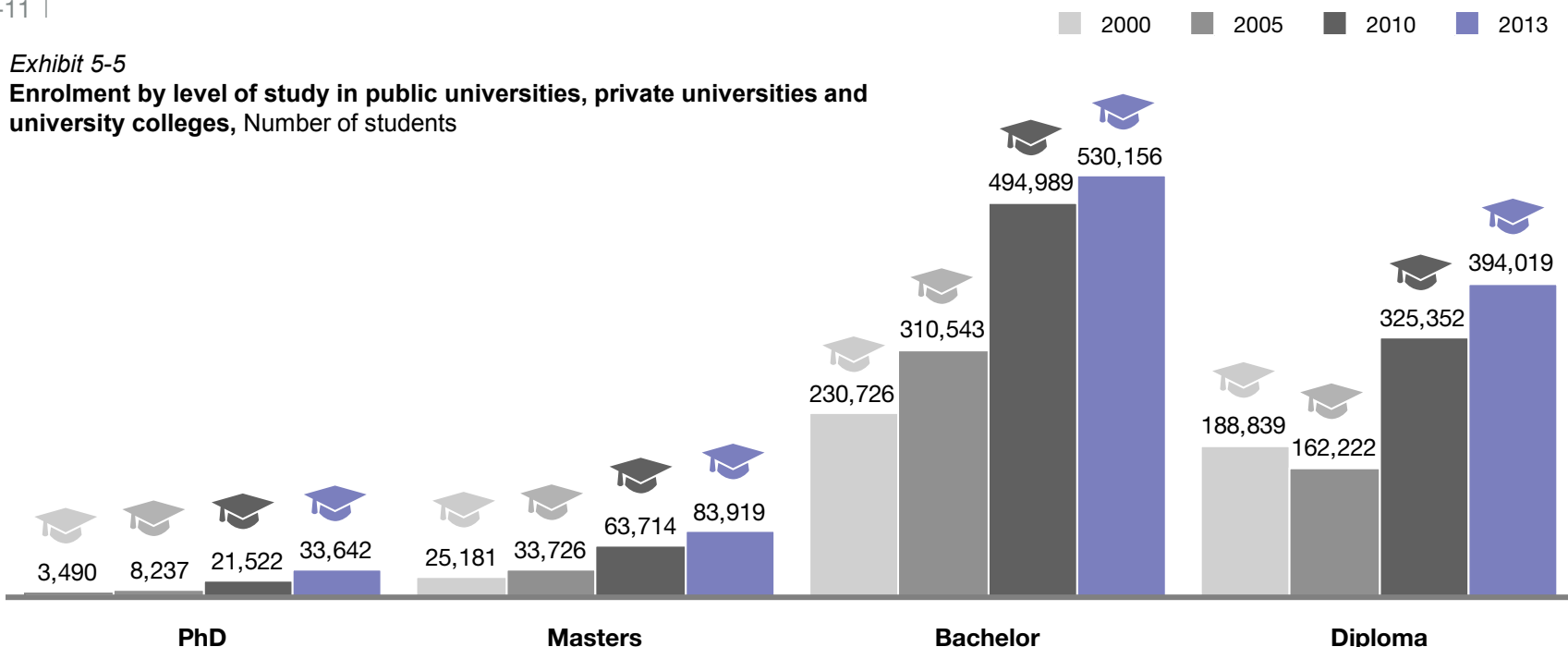


Exhibit 5-6
Share of enrolment in public universities, private universities and university colleges, Percentage

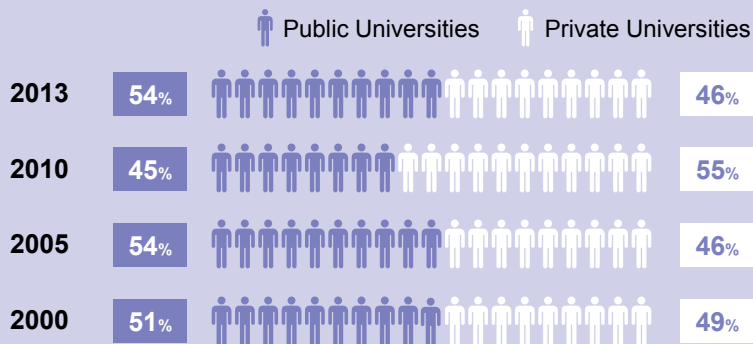


Exhibit 5-7
Cumulative Grade Point Average (CGPA) at bachelor level in public universities, Number of graduates

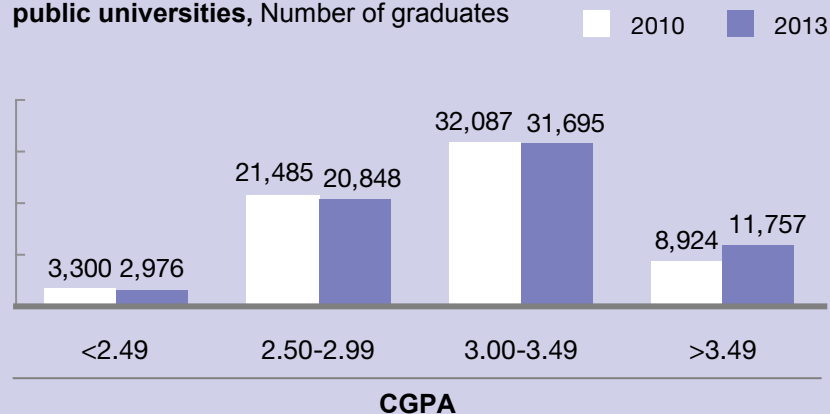
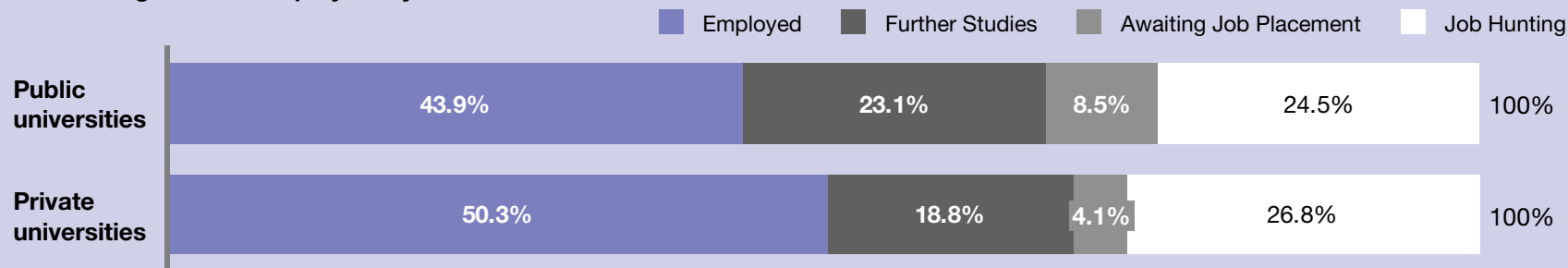


Exhibit 5-8
Results of graduates employability tracer studies¹ in 2013



¹The Graduate Employability Tracer Study is an annual survey done by MoE to understand the status of employment for graduates within three to six months of graduation. Graduate status is classified into four categories: employed (including self-employed), further study (including upskilling), awaiting job placement and job hunting

Exhibit 5-9

Number of academic staff in public universities by qualification

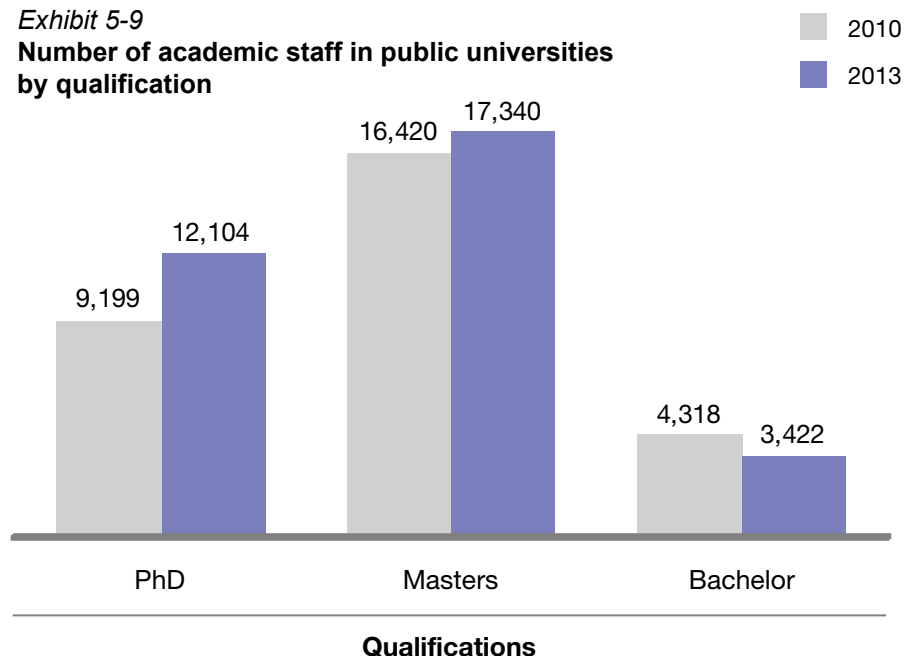


Exhibit 5-10

Number of citations and publications from research done by public universities

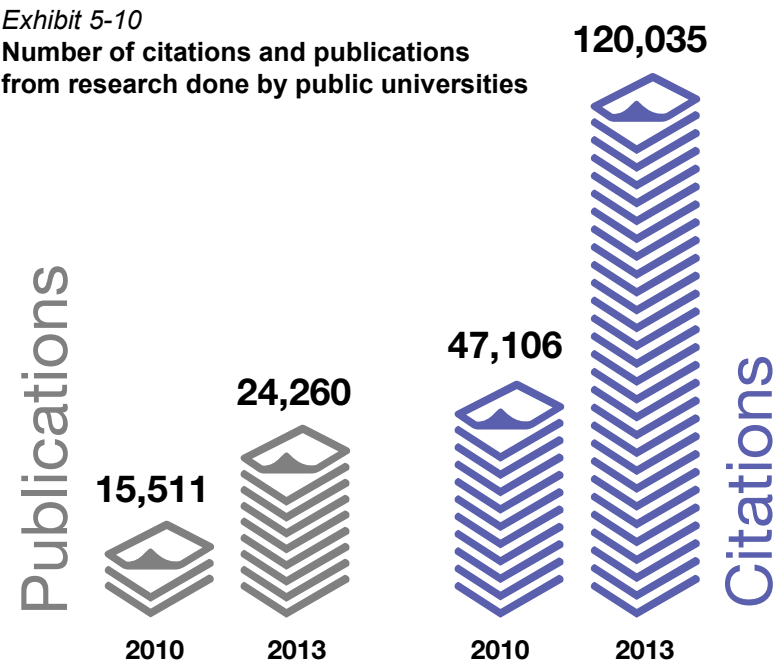
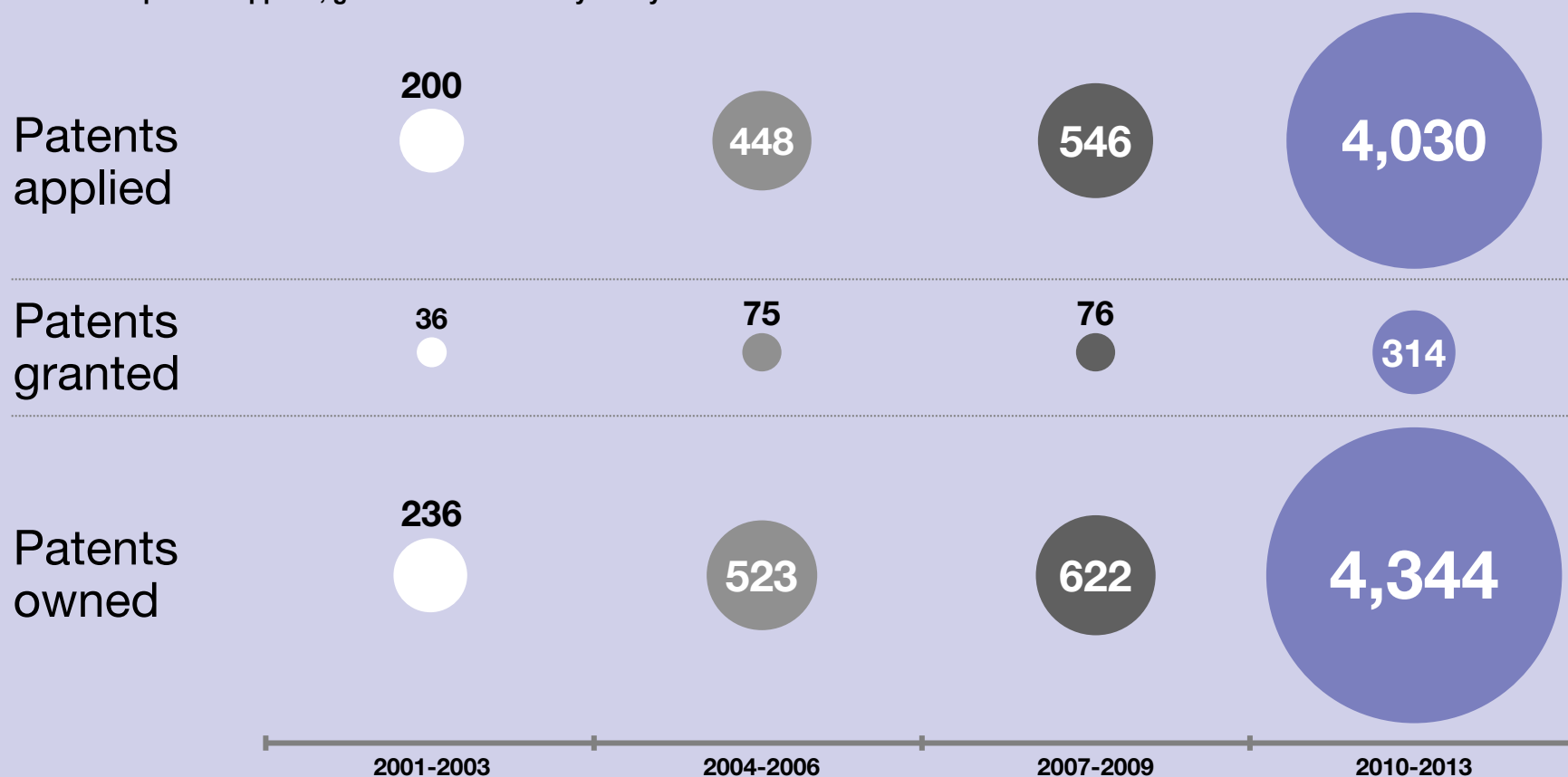


Exhibit 5-11

Number of patents applied, granted and owned by Malaysian Research Universities



Summary of focus areas

Eleventh Malaysia Plan, 2016-2020

Improving labour market efficiency to accelerate economic growth

- Improving labour productivity and wages through the shift to high skilled jobs
- Enhancing labour market operations to maximise efficiency and effectiveness
- Improving management of foreign workers

Transforming TVET to meet industry demand

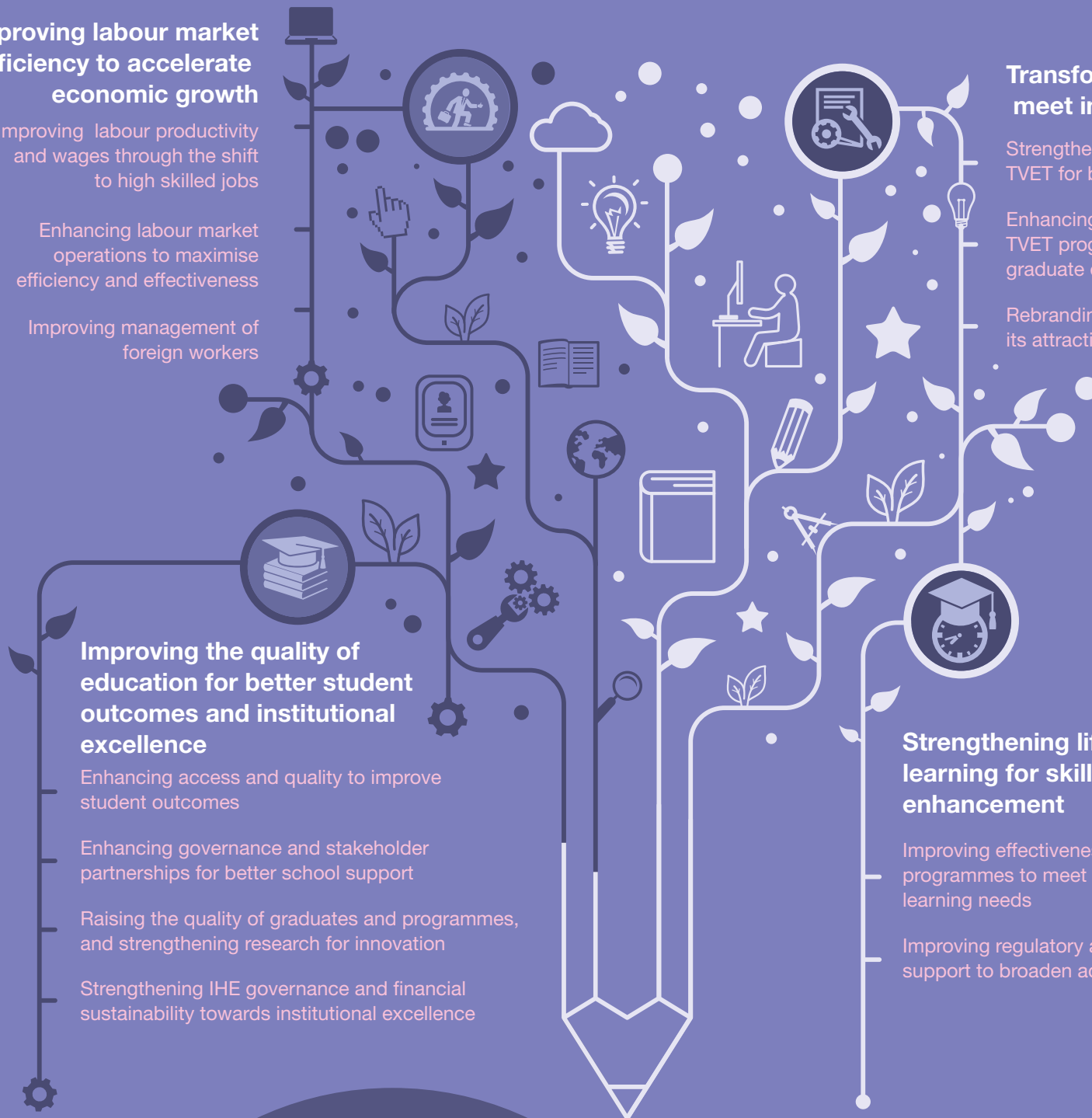
- Strengthening the governance of TVET for better management
- Enhancing quality and delivery of TVET programmes to improve graduate employability
- Rebranding TVET to increase its attractiveness

Improving the quality of education for better student outcomes and institutional excellence

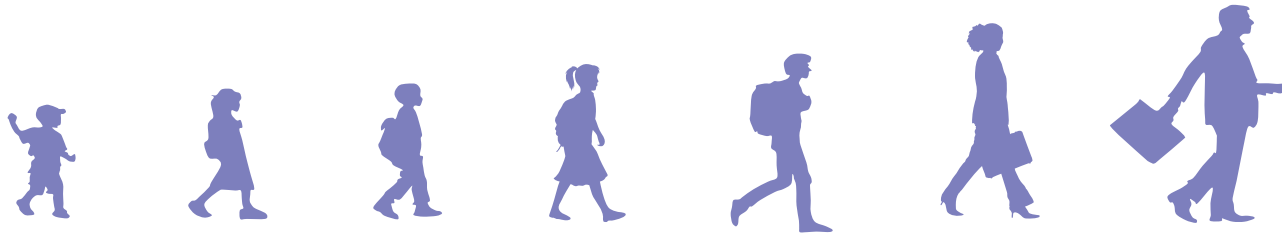
- Enhancing access and quality to improve student outcomes
- Enhancing governance and stakeholder partnerships for better school support
- Raising the quality of graduates and programmes, and strengthening research for innovation
- Strengthening IHE governance and financial sustainability towards institutional excellence

Strengthening lifelong learning for skills enhancement

- Improving effectiveness of programmes to meet learning needs
- Improving regulatory and funding support to broaden access



SELECTED OUTCOMES



Improving labour market efficiency to accelerate economic growth

3.7%

Per annum labour productivity target in the Eleventh Plan, compared with 2.3% in the Tenth Plan

Transforming TVET to meet industry demand

225,000

Intake of SPM leavers to TVET programmes; an increase from 164,000 in 2013

Strengthening lifelong learning for skills enhancement

58%

Increase in number of employees that will benefit from expansion of the HRDF Act; from 1.77 million employees in 2014 to 2.8 million in 2020

Improving the quality of education for better student outcomes and institutional excellence



Malaysia aims to be at least on par with the international average in PISA and TIMSS assessments

100%

Student enrolment from preschool to upper secondary

40%

Compensation of employees to GDP in 2020; an increase from 33.6% in 2013

RM 2,500

Monthly median wage in 2020; an increase from RM1,575 in 2014

TOP 100

2 universities in Top 100 of the QS World University Rankings

Moving forward

Eleventh Malaysia Plan, 2016-2020

The Eleventh Malaysia Plan will produce a fundamental shift in how the system currently operates in order to develop world-class talent that can thrive in a globally competitive economy.

Malaysia aspires to become an advanced and inclusive nation by 2020. To realise this, Malaysia will require human capital with the knowledge and skills, as well as ethics and morality, to drive inclusive and sustainable economic growth. The initiatives under the Eleventh Plan are projected to generate approximately 1.5 million new jobs by 2020, of which 60% require TVET-related skills. Accordingly, the Government will invest in four focus areas:

- Focus area A: Improving labour market efficiency to accelerate economic growth
- Focus area B: Transforming TVET to meet industry demand
- Focus area C: Strengthening lifelong learning for skills enhancement
- Focus area D: Improving the quality of education for better student outcomes and institutional excellence

Collectively, the changes arising from these focus areas will produce a fundamental shift in how the system currently operates. Labour market policies will focus on improving labour productivity. The existing workforce will move from a world where learning only happens during one's youth, to one where every person has the opportunity to continuously enrich and develop themselves. TVET will shift from being government-driven to one that enables industry-led programmes and interventions. Above all, the quality of education will be raised to develop talent with both the knowledge and skills, and ethics and morality, to thrive in a globally competitive and ever-changing world. Eight headline outcome targets have been set as a benchmark of success. These targets will constantly be tracked and monitored to evaluate their progress.

To drive the human capital development agenda during the Eleventh Plan, the Government will establish a high-powered National Human Capital Development Council (NHCDC). The Council will not only be composed of Ministers and implementers from relevant agencies, but also major private sector players and industry representatives. The Council is modelled after the existing Economic Council and will set overall human capital development policy direction, determine initiative priorities, and integrate action across public, private, and social sector stakeholders.



Focus area A

Improving labour market efficiency to accelerate economic growth

An efficient and flexible labour market is critical to ensure that the supply of talent matches industry demand, minimise underutilisation of skills, and enable inclusive and sustainable growth. On that account, the Government aims to improve the efficiency and operations of the labour market. To achieve this, three strategies will be implemented:

- **Strategy A1: Improving labour productivity and wages through the shift to high-skilled jobs.** Key measures include the wider adoption of the Productivity Linked Wage System (PLWS), the shift from low- to high-skilled jobs, and the reduction of existing wage gaps;
- **Strategy A2: Enhancing labour market operations to maximise efficiency and effectiveness.** Measures include regulatory reform, more integrated information to enhance decision making, closer integration with industry, and targeted programmes for youth and women; and
- **Strategy A3: Improving management of foreign workers** by reducing the nation's reliance on low-skilled foreign workers and streamlining recruitment as well as immigration processes.

Strategy A1

Improving labour productivity and wages through the shift to high-skilled jobs

Improving labour productivity

Labour productivity refers to the amount of output produced per worker and is an important measure of the effectiveness and efficiency of the nation's workforce and economy. Labour productivity is targeted to

grow at 3.7% per annum by the end of the Eleventh Plan, compared with 2.3% during the Tenth Plan. The services and manufacturing sectors are targeted to register the highest productivity growth at 4.1% and 3.0% respectively. To complement this growth, the Government will further encourage the implementation of performance-related pay schemes through wider industry implementation of the PLWS. PLWS ensures that wage increases commensurate with higher productivity, thus enhancing competitiveness at the firm level. By the end of the Eleventh Plan, 85,000 employers are expected to adopt PLWS compared with 76,000 in 2013, which will benefit about 3.7 million employees. In addition, continuous upskilling and reskilling of the existing workforce will contribute to productivity growth.

Creating more high-skilled jobs

Skilled workers are projected to comprise 35% of the workforce by 2020, as shown in Exhibit 5-12. Existing industries will be encouraged to move up the value chain by investing in high value added activities that require skilled workers. Additionally, the Government will be more selective in attracting new investments, favouring those with knowledge-intensive activities.

Reducing wage gaps to improve equity

The Government aims to increase the compensation of employees to GDP from 33.6% in 2013 to 40% in 2020, to be on the same level as other middle- and high-income countries. Compensation of employees is expected to increase following greater compliance with minimum wage requirements, upward revisions in minimum wages linked to improved productivity, and enhanced recognition of prior learning (RPL). The recognition of technologists⁶ as professionals through the establishment of the Malaysia Board of Technologists (MBOT) will also improve wages of TVET graduates. MBOT will serve as a statutory

⁶ The Ministry of Science, Technology and Innovation (MOSTI) defines "technologists" as TVET graduates and practitioners with a minimum degree in engineering technology and technicians with a minimum diploma qualification.

body to regulate, promote, and develop the technologist profession in Malaysia. These measures are expected to contribute to an increase in the monthly median wage from RM1,575 in 2014 to RM2,500 in 2020.

Introducing wage index as a guide for fair and transparent compensation

The Government will establish a National Wage Index (NWI) that will serve as a guide and benchmark for employers in determining the right wage level for employees that is in accordance with their qualifications, skills, and productivity. The NWI will be developed by the MoHR in collaboration with related government agencies, and will rely on consolidated wage data from multiple sources.

Strategy A2 Enhancing labour market operations to maximise efficiency and effectiveness

Improving labour market information for informed decision-making

The LMIDW will be updated to include more demand-based information such as job openings, employment projections, and salaries to provide better insights into the demands of industry. The functionality and user friendliness of LMIDW will also be enhanced. For example, users will be able to generate in-depth and visual analytics of the labour market from the data. These enhancements will provide insightful analysis of labour market trends and emerging

human capital issues, which will in turn enable better human capital planning and effective policy formulation.

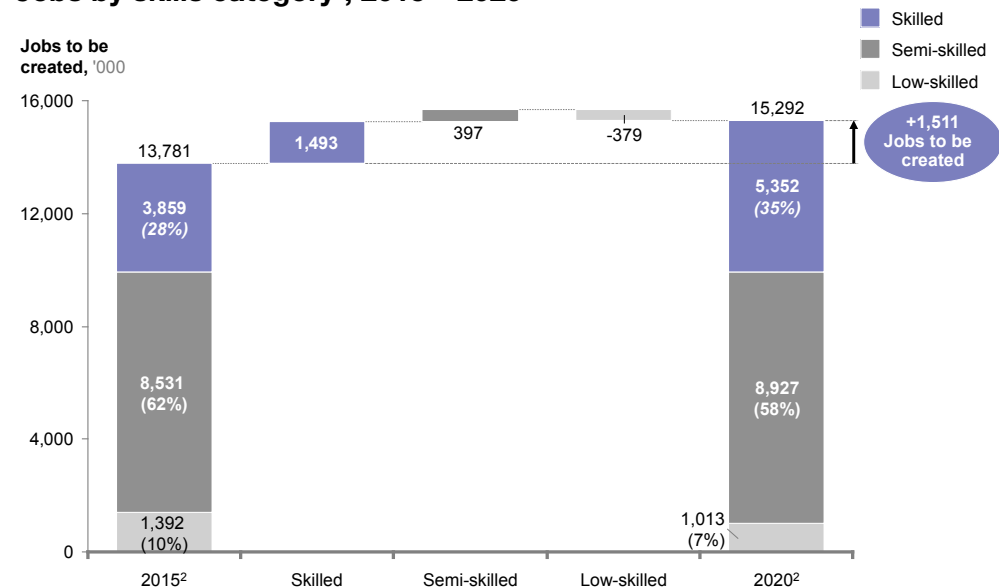
Minimising mismatch in the labour market

An Industry Skills Committee (ISC) will be established to serve as a platform for coordinated engagement of industry players, so as to gather information on the requirements of industry. The Committee will be jointly chaired by the Ministry of International Trade and Industry (MITI) and a reputable industry captain. To support the ISC, Industry Working Groups (IWG) will be established to identify specific human capital requirements beginning with 11 economic sectors. The Critical Skills Gap Committee under the joint purview of Talent Corporation and ILMIA will also be established to assist the ISC in identifying critical skills gaps, particularly in strategic sectors, for future human capital planning.

Industry Centres of Excellence (ICoE) and Academia-Industry Graduate Development Centres (AIGDC) in universities will also help address mismatches in the labour market. Lessons from ICoE's and AIGDC's collaboration with

Exhibit 5-12

Jobs by skills category¹, 2015 – 2020



¹ The three major occupational groups are skilled workers, semi-skilled and low-skilled. Skilled workers comprise managers, professionals and technicians and associate professionals. Semi-skilled workers comprise clerical support workers, service and sales workers, skilled agricultural, forestry and fishery workers, craft and related trade workers, and plant and machine operators and assemblers. Low skilled workers comprise elementary occupations.

² 2015 figures are an estimation while 2020 are forecasted

industry will be used for the development of industry-relevant curricula. Currently, there are 10 ICoEs that focus on strategic sectors such as automotive, biotechnology and health services.

Addressing youth unemployment

Although youth unemployment remains lower than ASEAN and world averages, the Government will continue to ensure all youth have access to training opportunities before joining the labour market. Youth in the labour market will also be given opportunities for upskilling, to equip them with better skills, and enable them to command higher salaries. Youth of schooling age, particularly those in upper secondary, will be encouraged to complete tertiary education before joining the labour force. Efforts to prepare youth for employment and secure job placements will be intensified through programmes such as SKK1M, NDTs and 1Malaysia Skills Training and Enhancement for the Rakyat (1MASTER).

Raising female participation to increase inclusiveness

Female participation in the labour market will be further increased through more family-friendly employment strategies. These include providing better access to quality childcare facilities, flexible working hours, work-from-home options, and employment re-entry opportunities. For example, the Government will widen access to jobs through the 1Malaysia Support for Housewives and Flexiworklife programmes. Women will also be encouraged to become entrepreneurs through programmes such as Azam Niaga, Women Entrepreneurial Incubator, and 1Nita.

Enhancing legislation to meet labour market requirements

The MoHR will amend labour-related legislation such as the Employment Act, 1955, Trade Unions Act, 1959, and the Industrial Relations Act, 1967. These amendments will address the rigidity of existing dismissal processes, resolve overlapping and contradicting provisions, as well as increase flexibility in working hours and registration of trade union membership.

Strategy A3 Improving management of foreign workers

Reducing reliance on low-skilled foreign workers

A comprehensive immigration and employment policy for foreign workers will be formulated, taking into account the requirements of industry and the welfare of foreign workers. Heavy reliance on low-skilled foreign workers, particularly in labour-intensive activities will be addressed holistically. The proportion of foreign workers in the workforce is capped at 15% of total workforce in 2020. Greater automation especially in labour-intensive activities, as well as migration to knowledge-intensive activities will be encouraged in all sectors of the economy, particularly in the agriculture, manufacturing, and construction sectors, which currently employ more than 30% of foreign workers.

The levy system will also be improved to better regulate the entry of low-skilled foreign workers. This levy will be borne by employers and based on the ratio of foreign workers to total workers in a firm and the duration of employment. The levy will be increased gradually over time to increase its effectiveness.

Streamlining the recruitment process for foreign workers

The Government will streamline the recruitment of foreign workers by placing it under a single administration. The MoHR will assume the lead role in policy-making for foreign worker management. The Government will streamline recruitment processes at the One-stop Centre (OSC). The OSC will be responsible for determining the requirement of foreign workers by sector; verifying and approving applications for recruitment of foreign workers; monitoring and responding to all matters related to the welfare of foreign workers; and ensuring that foreign workers are employed in the approved sectors and firms. With the streamlining of OSC operations, the role of outsourcing companies and intermediaries will be eliminated.

The Government will introduce the strict liability concept whereby employers of foreign workers are fully responsible for their recruitment process and welfare. In addition, the Government will address the issue of illegal foreign workers through better management and effective enforcement initiatives.



Focus area B

Transforming TVET to meet industry demand

60% of jobs that will be created during the Eleventh Plan are projected to require TVET-related skills, thereby making TVET the most important avenue for increasing Malaysia's skilled human capital base. The Government will therefore intensify collaboration with industry to increase intake in TVET, improve the quality of programmes and institutions, and improve the sector's overall branding and profile. Collectively, these advancements will produce sufficiently skilled graduates and make TVET a pathway of choice. These outcomes will be realised through three strategies:

- **Strategy B1: Strengthening the governance of TVET for better management**, through the streamlining of the national qualification framework, and harmonising of various rating systems across both private and public TVET institutions;
- **Strategy B2: Enhancing quality and delivery of TVET programmes to improve graduate employability**, by enabling industries to lead curriculum development, eliminating the duplication of programmes and resources, enhancing cost efficiency, and increasing enrolment; and
- **Strategy B3: Rebranding TVET to increase its attractiveness.** This will be achieved through promotional activities highlighting TVET as an attractive career choice.

Strategy B1

Strengthening the governance of TVET for better management

Establishing a single system for accreditation

The current fragmented TVET sector will be consolidated through the establishment of a single system adopted by both MQA and DSD to facilitate better coordination and monitoring of the TVET sector. The new system will accredit TVET programmes offered by both public and

private TVET institutions based on the revised Malaysian Qualification Framework (MQF) set out in Exhibit 5-13. This in turn will allow mobility of students between and among all TVET institutions.

Harmonising TVET institution rating systems to improve comparability

The Government will harmonise the various rating systems across private and public TVET institutions into a single system. This includes rating systems such as the star rating system adopted by DSD for private TVET institutions, as well as the Polytechnic Rating System (PolyRate) and Sistem Penarafan Kolej Komuniti (MySpeKK) for public TVET institutions. This unified system will rate the quality of institutions and programmes based on outcome indicators such as graduate employability and industry engagement. Institutions' performance on this rating system will be one of the factors used to determine allocation of funds for institutions.

Strategy B2

Enhancing quality and delivery of TVET programmes to improve graduate employability

Enabling industry-led programmes to reduce skills mismatch

The ISC, in collaboration with industry players, will identify relevant competencies for each sector and sub-sector. New partnership models will enable industries to get involved at every step of the value chain, particularly in the design and delivery of the curriculum, to ensure it is more hands-on and up-to-date. This could include apprenticeships, internships, and work-based learning programmes. "Problem, Project, Production" learning modules which engage students in authentic, "real world" tasks intended to simulate actual workplace situations, will also be embedded in the curriculum to better prepare students for the working environment.

Mainstreaming the National Dual Training System (NDTS)

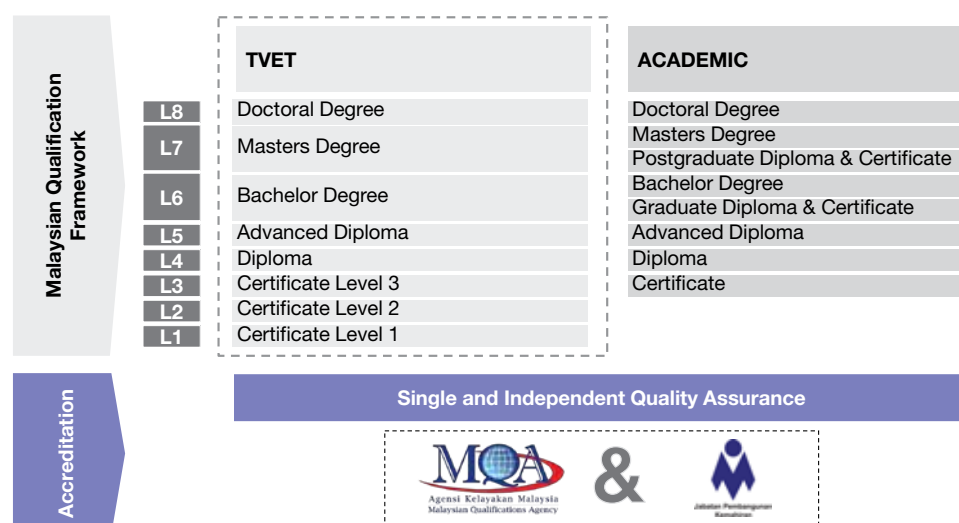
A concerted effort will be made to mainstream the NDTS to produce skilled TVET graduates demanded by industry. NDTS offers employees workplace-based training wherein 70% of the training takes place at the company and 30% at TVET institutions. The 1MASTER NDTS programme will be further expanded to support specific economic development areas and industry needs. For example, a 1MASTER NDTS programme was established to specifically address the human capital needs of the Iskandar Malaysia development corridor. A special NDTS for youth who have dropped out of the education system will also be expanded to provide training and certification that will enable them to secure better job opportunities. The NDTS will be expanded to involve more public and private institutions, and will also encourage increased participation from industry.

Eliminating low-impact and overlapping programmes

Low-impact programmes that are not in demand by industry and that yield low graduate employability will be eliminated. The existing centralised system for tracer studies for public institutions will be upgraded and expanded to private institutions to enable comparisons of graduate employability. On top of these, more industry engagement in the form of scheduled dialogues will be conducted for continuous programme assessment and validation. Overlapping programmes among public institutions will be reduced by encouraging them to specialise and create Centres of Excellence in niche areas of expertise in order to optimise resources and produce better student outcomes.

Exhibit 5-13

The revised Malaysian Qualification Framework



Box 5-3

Problem/Project/Production-based learning

Global economic challenges, rapid technology evolution, and the growth of the knowledge economy demand new ways of teaching and learning in order to produce talent with industry-valued skills such as creative and innovative problem solving. It will also be important to develop talent with a love of learning so that they will continuously seek out opportunities to improve themselves.

Problem/Project/Production based learning is an example of an innovative instructional approach in a Student-Centred Learning (SCL) environment that provides flexible guidance through problem solving, project work, and real life industrial activities (production). This model has been implemented in top universities across the world, such as University of Cologne-Germany, University of Aalborg-Denmark, University of Victoria-Australia, University of Stanford-USA, and University of Manchester-UK.

Problem / Project / Production Based Learning		
Exploring the problem to acquire and enhance knowledge, skills and attitudes	Applying range of knowledge, skills and attitudes to solve problems through projects	Experiencing real life industrial activities using multi-disciplinary knowledge, skills and attitudes
PROBLEM	PROJECT	PRODUCTION

Source: German-Malaysian Institute

Game Changer

Enabling Industry-led Technical and Vocational Education and Training

Why is TVET important for Malaysia?

Under the Eleventh Plan, 60% of the 1.5 million jobs that will be created will require TVET-related skills. Meeting this demand will require Malaysia to increase its annual intake gradually from 164,000 in 2013 to 225,000 in 2020. Yet, the challenge is not merely about numbers. Industry feedback consistently reveals a disconnect between the knowledge, skills, and attitudes these graduates possess, and what is required in the workplace.

It will not be easy to resolve these quality and quantity concerns. The Malaysian TVET landscape is fragmented, with more than 1,000 public and private TVET institutions offering similar programmes of varying standards. Collaboration between industry and TVET providers rarely reaches the breadth and depth necessary to develop high quality programmes. Furthermore, TVET is still perceived as an unattractive pathway by many students.

This litany of challenges can be daunting. Therefore, getting the transformation right is more critical than ever as Malaysia enters the last leg of its journey towards Vision 2020.

What would success look like?

An effective and efficient TVET sector is one where:

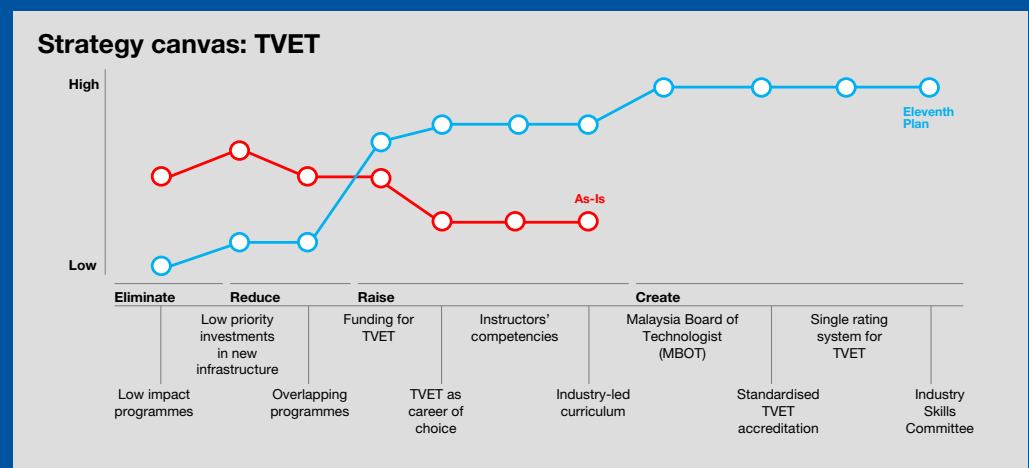
- Supply matches demand, and there are robust quality control mechanisms which ensure that all public and private institutions meet quality standards;

- Industry and TVET providers collaborate across the entire value chain from student recruitment, through to curriculum design, delivery, and job placement; and
- Students are well-informed of the opportunities that TVET can offer and view TVET as an attractive pathway. Students also have access to a variety of innovative, industry-led programmes that better prepares them for the workplace.

How will this be achieved?

Achieving these aspirations will require harmonising and streamlining how the system currently operates to reduce fragmentation across the various public and private stakeholders. Furthermore, efforts will be made to encourage industry-led interventions and programmes as they are the stakeholders best placed to ensure that the supply of graduates meet their requirements. A summary of the major shifts that will be undertaken are set out on the right.

The strategy canvas below highlights areas that should be eliminated, reduced, raised or created for this game changer.



	From	To
Governance	<p>2 Accreditation Agencies (MQA and DSD) with different sets of qualifications</p> <p>Different quality rating systems for public and private TVET institutions, depending on which Ministry the institution is registered with</p>	<p>Single qualification system adopted by both MQA and DSD</p> <p>Single rating system for both public and private TVET institutions</p>
Programme delivery	<p>Design and delivery of curriculum led by individual TVET institutions or Government</p> <p>No specialisation among TVET institutions</p>	<p>Design and delivery of curriculum led by industry, in partnership with TVET institutions and Government</p> <p>Institutions to specialise in and create Centre of Excellence in niche areas of expertise</p>
Capacity	<p>164,000 intake in 2013</p>	<p>225,000 intake in 2020, by maximising use of existing institutions</p>
Profile	<p>Limited recognition and low premium</p>	<p>Career of choice for students</p>

Optimising resources for better return on investment

The Government will prioritise improving existing institutions rather than investing in new ones. Similarly, the Government will prioritise buying places from quality private institutions rather than creating new programmes, and will rationalise poor performing institutions. This could be done, for example, by merging them with high performing institutions. Public and private TVET providers will be encouraged to share facilities, faculty and best practices, and to deliver their programmes in as cost-efficient a manner as possible.

Linking funding to demand and performance

The SDF will continue to provide funding for students who pursue TVET programmes that are highly demanded by industry and delivered by TVET institutions with good performance ratings. The existing SDF loan mechanism for employee upskilling and reskilling will also be revamped to increase the number of recipients through a cost-sharing arrangement with industry. Fees in public TVET institutions will be standardised based on the type and level of programme.

Developing high quality instructors to improve delivery

Professional development programmes for instructors will be improved by incorporating more industrial training and attachment programmes. A centralised repository of instructor profiles will be established to identify competency gaps and enable the development of an effective training roadmap. Besides these, more industry experts including retired industry practitioners will be encouraged to serve as TVET instructors through the provision of attractive remuneration packages.

Strategy B3

Rebranding TVET to increase its attractiveness

Promoting TVET as a pathway of choice

SkillsMalaysia will drive a series of targeted media campaigns to educate students and families on the attractive career and entrepreneurship opportunities that TVET programmes can offer. Such promotional efforts will offer students meaningful career guidance and showcase success stories. The MySkills Competition and International Skills Competition for TVET students will also be used as platforms to boost the image of TVET.

Recognising technologists as professionals

MBOT will determine and govern the ethics and conduct of the profession as well as provide guidance and professional development programmes for career advancement. Through these activities, MBOT will elevate the role and recognition of technologists.



Focus area C

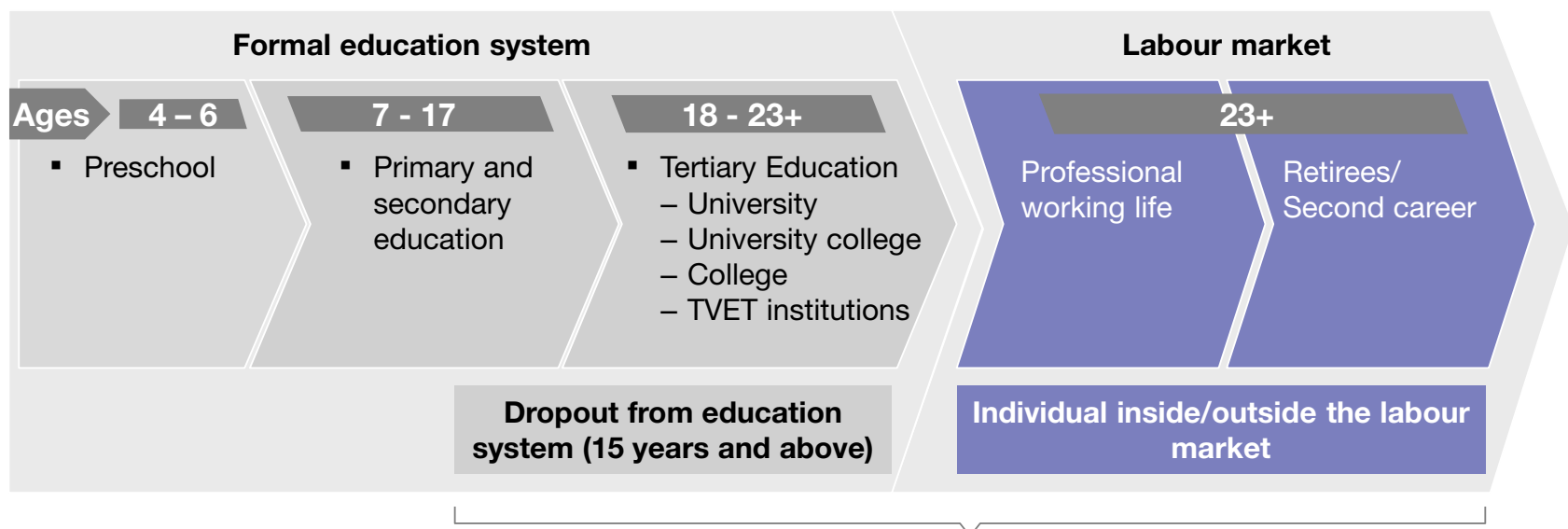
Strengthening lifelong learning for skills enhancement

Lifelong learning (LLL) is essential in enabling Malaysians to continuously reskill and upskill themselves to meet the ever changing demands of the labour market. It involves Malaysians 15 years old and above, who have dropped out of formal education and, those who are currently employed, unemployed, or retired, as shown in Exhibit 5-15. The Government will widen access to LLL and raise the quality of existing programmes, with the goal of making LLL a way of life for all Malaysians. These aspirations will be achieved through two strategies:

- **Strategy C1: Improving effectiveness of programmes to meet learning needs**, by increasing the use of industry-based training programmes, streamlining community-based programmes, and introducing entrepreneurship training in high-value economic sectors; and
- **Strategy C2: Improving regulatory and funding support to broaden access** through the enhancement of existing frameworks for recognising prior learning, and expanded HRDF support for new sectors and target groups.

Exhibit 5-15

Lifelong learning concept



Eleventh Plan: Lifelong learning

- Lifelong learning refers to Malaysians learning from cradle to grave. It encompasses the entire lifetime of the individual, from early childhood care and education to post-retirement.
- The Eleventh Plan focuses on Malaysians 15 years old and above, who have dropped out of formal education, and those who are currently employed, unemployed, or retired.

Strategy C1

Improving effectiveness of programmes to meet learning needs

Enhancing industry-based programmes to upskill employees

Industry-based upskilling programmes will be strengthened to upgrade the skills of existing employees. For example, the CIDB and the Malaysian Automotive Institute (MAI) will initiate industry-based training in the construction and automotive industries. The Malaysian Meister Programme (MMP), which is adapted from the German-Meister Programme, will be introduced to provide skills enhancement training for experienced employees.

Developing entrepreneurs for high-income economic sectors

Agencies such as Institut Keusahawanan Negara (INSKEN), Majlis Amanah Rakyat (MARA), and Malaysian Global Innovation and Creativity Centre (MaGIC) will strengthen entrepreneurship related training programmes for high-income economic sectors in collaboration with industry. MaGIC, through its Go2Market programme in partnership with the Stanford Graduate School of Business will help innovators incubate and set up successful businesses. Additionally, the Government will nurture an entrepreneurial spirit in youth from an early age, through the formal curriculum in schools, IHEs, TVET institutions, as well as through extracurricular activities.

Enriching communities through LLL

A task force headed by the Department of Community College will be formed to enhance LLL curricula, reduce redundancies, and optimise resources at the community level. The enhanced curricula will emphasise industry relevant skills as well as inculcate positive values. The portfolio of programmes offered by relevant agencies will be reviewed to ensure relevance to the specific needs of the community it serves, with training being delivered in existing facilities.

Strategy C2

Improving regulatory and funding support to broaden access

Expanding Human Resources Development Fund (HRDF) Act coverage

The coverage of the HRDF Act, 2001, will be expanded to include more subsectors under the services and agriculture sectors. This will increase the number of employees that will be eligible for training under HRDF from 1.77 million in 2014 to 2.8 million in 2020 which is an increase of 58%. HRDF will also collaborate with SME Corp to provide training to SMEs not covered under the HRDF Act. 50,000 SME employees are projected to benefit from these training programmes.

Recognising experiential/prior learning

The Recognition of Prior Learning (RPL) programme under the DSD and Accreditation of Prior Experiential Learning (APEL) under the MQA will be enhanced to make it easier for employees to continue their education. The RPL is a programme designed to recognise employees' experience and expertise for certification. The APEL enables knowledge and skills acquired through formal education and working experience to count towards the completion of their studies in IHEs. In addition, the Government will encourage higher enrolment into the MyPhD-Industry programme.

Supporting pre-employment training through the Future Workers Training scheme

The Future Workers Training (FWT) Scheme will be established under the HRDF to promote pre-employment training focusing on emerging technologies. Existing pre-employment training programmes, such as the Industrial Skills Enhancement Programme (INSEP) and the Workers Technical Transformation Programme (WTTP) will be consolidated as part of the FWT Scheme.



Focus area D

Improving the quality of education for better student outcomes and institutional excellence

The education system plays a crucial role in supplying Malaysia with world class talent as it is the primary factor for the development of knowledge, skills, and attitudes during one's youth. The Government aims to produce future leaders with the knowledge and skills, and ethics and morality, that will propel Malaysia to even greater heights. This aim will be realised through an integrated approach that includes improving the quality of teachers and academic staff, earned autonomy for IHEs and schools, and a more efficient use of public resources. Four strategies have been identified:

Preschool to post-secondary

- **Strategy D1: Enhancing access and quality to improve student outcomes** through a range of measures such as better quality early childhood care and education (ECCE), professional development of teachers and school leaders, and the provision of different schooling models to meet the needs of specific student groups;
- **Strategy D2: Enhancing governance and stakeholder partnerships for better school support** by empowering Jabatan Pendidikan Negeri (JPN) and Pejabat Pendidikan Daerah (PPD) to provide more instructional support to schools, and engaging the community and private sector as partners in the education transformation journey;

Higher education:

- **Strategy D3: Raising the quality of graduates and programmes, and strengthening research for innovation**, through measures such as embedding soft and entrepreneurial skills in the curriculum; collaborating with industry in the design and delivery of programmes; enhancing the quality of research; strengthening the role of IHEs as a conduit for innovation and as solution providers to industry and community; and launching massive open online courses (MOOCs) in niche areas of expertise; and
- **Strategy D4: Strengthening IHE governance and financial sustainability towards institutional excellence.** Measures include empowering public universities through earned autonomy within the regulatory framework, linking government funding to performance and encouraging public universities to diversify their funding sources.

Box 5-4

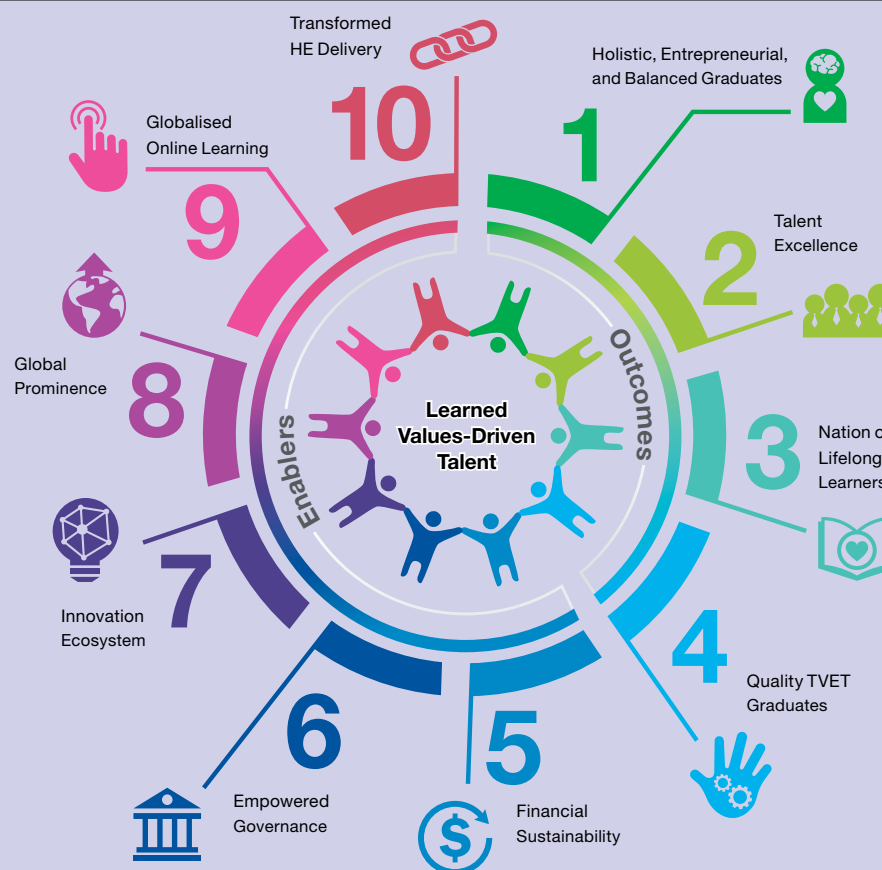
Malaysia Education Blueprint 2015-2025 (Higher Education)

In 2015, the Government launched the Malaysia Education Blueprint 2015-2025 (Higher Education) or MEB (HE), outlining a comprehensive transformation programme for the higher education system. As with the MEB, the Government aims to improve system outcomes on the dimensions of access, quality, equity, unity, and efficiency. From a student outcome perspective, the vision is to develop holistic, entrepreneurial, and balanced graduates with the relevant knowledge and skills (*ilmu*), and ethics and morality (*akhlak*) to meet the needs of Malaysia’s growing economy and to be competitive internationally.

To achieve these system and student aspirations, the MEB (HE) outlines 10 shifts that will spur continued excellence. The first four Shifts focus on talent outcomes for key stakeholders in the higher education system. The other six shifts focus on enablers, covering critical components of higher education such as funding, innovation, governance, online learning, global prominence, and delivery.

Source: Ministry of Education

Exhibit 5-16
10 Shifts of the MEB (HE)



The implementation of the MEB (HE) will result in major shifts in the way the higher education system operates, as shown below:

From	Job seekers	Focus on university education	Focus on inputs	Highly centralised	Reliance on government resources	Mass production delivery model	Separation of private and public institutions
To	Job creators and balanced citizens with entrepreneurial mindsets	Academic and TVET pathways equally valued and cultivated	Focus on outcomes	A model of earned autonomy for institutions	All stakeholders have shared responsibility for higher education resources	Technology-enabled innovations to deliver and tailor education for all students	Harmonised Higher Learning Institutions

Strategy D1

Enhancing access and quality to improve student outcomes

Improving the quality of early childhood care and education (ECCE)

The Government will improve the quality of teachers and caregivers through specialised training programmes, as well as require all teachers working in public preschools to have a minimum diploma level qualification. Measures to ensure the affordability of and accessibility to childcare centres will be explored by Jabatan Kebajikan Masyarakat (JKM) as the lead agency for ECCE. This includes collaborating with other private and public organisations to promote the establishment of more childcare centres at the workplace. The Government will also expand performance monitoring mechanisms to all preschools, and identify gifted and talented children through the PERMATA programme to enable their potential to be nurtured as early as possible.

Enhancing the curriculum to build 21st century skills

The school curriculum will embed knowledge, skills, and values that are relevant to the 21st century. Students will be proficient in Bahasa Melayu and English, and be encouraged to learn a third language. Teachers will embed HOTS in their lessons to develop critical, creative, and innovative thinkers. STEM (science, technology, engineering, and mathematics) education will continue to be reinforced through enquiry-based and hands-on learning opportunities. Participation in the TIMSS assessment will be extended to primary school students to provide a basis for earlier interventions.

Using online learning to widen access and improve teaching and learning

The MoE will strengthen the use of the 1BestariNet Virtual Learning Environment (VLE) platform in schools. A digital content development roadmap will be formulated to ensure that more resources are developed – from digital textbooks to adaptive learning programmes – to support online learning and supplement the existing 24,000 resources. The MoE will use these resources to deliver virtual lessons and offer more personalised learning opportunities to students. These

resources will be particularly useful for students in under-enrolled rural schools and gifted students. The MoE will collaborate with the Malaysian Communications and Multimedia Commission (MCMC) to achieve these aims.

Improving professional development programmes for teachers and school leaders

A comprehensive, competency-based professional development programme will be rolled out for in-service teachers and school leaders. These programmes will be delivered by a pool of skilled master trainers and conducted in selected institutes of teacher education (ITE) and Pusat Latihan Guru dalam Perkhidmatan (PLGDP), based on teacher and school needs. In addition, each PLGDP will specialise in specific topics: STEM for PLGDP Northern Zone, educational technology for PLGDP Central Zone, language and LLL for PLGDP Eastern Zone, and social science and humanities for PLGDP Southern Zone. This means that each selected ITE and PLGDP will focus on training, research, development, and innovation activities in their niche areas of expertise. The quality of ITE lecturers and the pre-service teacher training curriculum will also be continuously enhanced.

Providing schooling options for different student groups

The Government is committed to providing a range of national schooling options that meets the needs of different student groups. The K9 school concept, which offers primary and lower secondary education under one roof, will be expanded to improve enrolment, especially among Orang Asli children. The K9 school curriculum will also emphasise the teaching and learning of the Integrated Living Skills subject and Basic Vocational Education. More schools will be equipped with facilities to cater for students with special education needs. To cater to rising demand for religious education, the religious stream classes or Kelas Aliran Agama (KAA) will be expanded in primary and secondary schools. The number of registered Sekolah Agama Bantuan Kerajaan (SABK) will also be increased, with a target of registering at least 10 private and state religious schools every year over the next five years.

Strategy D2

Enhancing governance and stakeholder partnerships for better school support

Reducing centralised administration of schools by empowering JPN and PPD

The Government will empower the Jabatan Pendidikan Negeri (JPN) or State Education Department and Pejabat Pendidikan Daerah (PPD) or District Education Office by devolving greater decision making rights to them. JPNs will focus on planning and coordinating curriculum implementation, and providing a shared service centre focused on administrative operations to PPDs. PPDs will provide limited administrative support to schools, focusing instead on providing instructional support to teachers and principals. PPDs will coach, mentor, and monitor performance regularly to ensure that all schools move up to better bands and no school remains in Band 6 or 7.

Strengthening community support for education

The Parent-Teacher Association (PTA) will drive school-level engagements with the community, private sector, non-governmental organisations, and other education providers, particularly with regard to securing additional expertise and funds. This will enable the creation of a holistic ecosystem that supports student learning. The Trust School concept, a public-private partnership model, will be expanded to at least 90 schools by 2020. Based on the performance of these Trust Schools, the MoE will also identify best practices that can be used to improve teaching and learning in other schools.

Additionally, the MoE will collaborate with other relevant agencies and communities to implement an integrated approach to reduce dropout rates from preschool to upper secondary so as to ensure 100% enrolment by 2020. Collaborative efforts will be established with local authorities and community leaders to trace children who have never attended school or who have dropped out. Students who are at risk of dropping out will be identified and intervention programmes to retain them in schools will be implemented.

Strategy D3

Raising the quality of graduates and programmes, and strengthening research for innovation

Developing holistic, entrepreneurial, and balanced graduates

Entrepreneurial skills will be embedded across the curriculum to instil a “job creator” mindset in all graduates. Public universities will be encouraged to increase the practical component in entrepreneurship courses, introduce entrepreneurship minors in academic programmes, and emphasise entrepreneurship education for students in professional courses such as engineering, pharmacy, and medicine. Other vital student attributes such as language proficiency, leadership skills, and ethics and spirituality will also be embedded across the curriculum and assessed through an integrated cumulative grade point average. To improve English proficiency among graduates in public universities, students will be required to improve their performance in the Malaysian University English Test (MUET) by at least one band upon graduation.

Aligning curriculum with industry needs to prevent skills mismatch

IHEs will periodically and systematically revise their curriculum to keep abreast of changing industry needs. This revision, as well as the development of any new programmes will be done in close collaboration with industry. Programme offerings that are irrelevant to industry will be eliminated. Industrial training for students will be made compulsory and its duration will be extended to better prepare them for entry into the workforce. Teaching staff will also be given the opportunity to update their knowledge and skills through industry attachments. IHEs will also recruit more industry practitioners as faculty members.

Creating massive open online courses for broader access and visibility

MOOCs are the next frontier for online learning. MOOCs will increase access, lower the cost of delivery, bring Malaysian expertise to the world, and enhance the branding and visibility of Malaysian IHEs. The Government will launch MOOCs in niche areas of expertise for Malaysia, make online learning an integral component of all teaching and learning, and support eligible IHEs in establishing the required cyber infrastructure in areas where none exist yet.

Improving research, development, and commercialisation activities to accelerate innovation

The Government will facilitate the development of innovation ecosystems in selected strategic areas that are critical to the nation's economic growth. IHEs will be encouraged to partner with industry, government and local communities to incubate, develop, and commercialise ideas and to establish supporting systems such as technology transfer offices and mechanisms for co-utilisation of facilities. IHEs will also be encouraged to strengthen their role as a conduit for innovation and as solution providers for other stakeholders. The Government will in turn play a catalytic role in securing investments from the private sector through platforms like the Private-Public Research Network.

Enhancing the global prominence of Malaysia as an education hub

The branding of Malaysian IHEs will be reinforced in strategic markets such as Southeast Asia, Middle East and Central Asia. This will be done by intensifying the promotion, marketing and value proposition of IHEs, increasing the number of quality international students, strengthening global networking, and gaining international recognition for specialisations and niches areas of expertise.

Strategy D4

Strengthening IHE governance and financial sustainability towards institutional excellence

Empowering public universities through earned autonomy within the regulatory framework

The role of MoE will be transformed from that of a tight controller to a regulator and policy-maker by empowering public universities with greater decision rights. Public universities will operate freely within the regulatory framework established by the Government with strong governance structures, clear decision rights, and effective stakeholder management. These enhanced freedoms will be balanced by the right internal capabilities and with appropriate accountability mechanisms. For example, public universities will have the freedom to establish multi-track career pathways for lecturers, researchers, practitioners, and institutional leaders.

Reducing dependency on government funding with diversified income sources

The Government will revise the funding formulae for public universities by replacing block grants with performance-linked and per student funding, and implementing performance contracts. Public universities will be encouraged to diversify revenue sources and implement cost optimisation measures. Reform efforts by Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN) will be intensified further to address issues of sustainability, equitable disbursement, and operational efficiencies. All applications and approvals will be evaluated based on household income and the databases of e-Kasih and Bantuan Rakyat 1 Malaysia (BR1M). PTPTN will also manage educational financing services for other agencies to increase revenue and lower its own operational cost.

Conclusion

The development of highly skilled human capital is essential to helping Malaysia make the shift towards higher-value and knowledge-intensive activities which are the hallmarks of an advanced nation. Investments in human capital are also vital to the improvement of personal wellbeing due to its many socio-economic benefits. To that end, under the Eleventh Plan, the Government will improve the efficiency of the labour market to accelerate economic growth, enable industry-led TVET to meet industry demands, expand lifelong learning for continuous upskilling, and improve the quality of the education system for better student outcomes.

The end vision is of a system wherein every Malaysian is able to access good quality education—whether in a TVET or academic pathway—that fosters the knowledge and skills, and ethics and morality, that they will need to navigate the challenges and opportunities of the globalised economy. The presence of a more efficient labour market will lead to closer alignment of workforce supply and demand, thereby enabling every Malaysian to benefit from the nation's growth. Ongoing opportunities for upskilling and reskilling will also allow Malaysians to stay relevant in their chosen fields or forge new paths for themselves. Collectively, these individuals will help Malaysia emerge as an advanced and inclusive nation by 2020.