



Executive Summary

Malaysia Education Blueprint 2015-2025 (Higher Education)



MINISTRY OF
EDUCATION
MALAYSIA

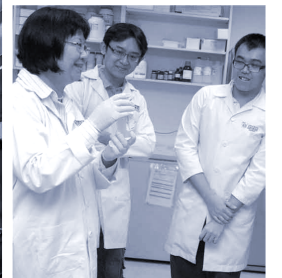
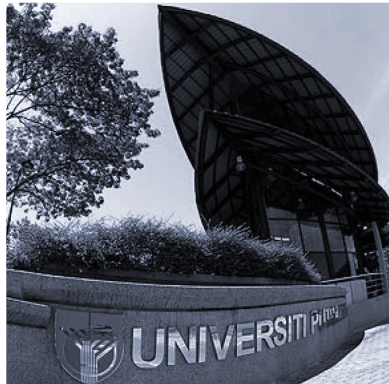
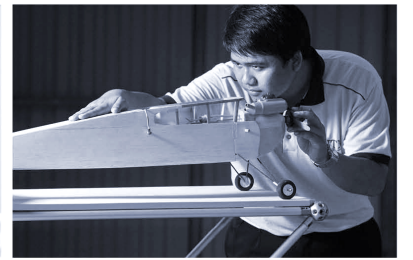




**MALAYSIA
EDUCATION
BLUEPRINT**

2015-2025

(HIGHER EDUCATION)



Executive Summary

The Malaysian higher education system has grown from strength to strength over the past few decades. Over the last ten years alone, the system has made significant gains in student enrolment, risen in global recognition on key dimensions such as research publications, patents, and institutional quality, as well as become a top destination for international students. These achievements are a testament to the drive and innovation of the Malaysian academic community, the support of the private sector, as well as the deep investment the Government has made.

Nonetheless, the Ministry of Education (the Ministry) recognises that the system will need to keep evolving to stay abreast with, if not ahead of, global trends. For example, disruptive technologies such as advanced robotics, the Internet of Things, and the automation of knowledge work are expected to dramatically reshape the business and social landscape from what it is today. Preparing Malaysian youth to thrive in this complex and ever-changing future will require an equally fundamental transformation of how the higher education system and higher learning institutions (HLIs) currently operate.

In 2013, the Ministry thus began developing the Malaysia Education Blueprint 2015–2025 (Higher Education) or the MEB (HE). Over the course of two years, the Ministry drew on multiple sources of input, from Malaysian and international education experts, to leaders of Malaysian HLIs and members of the public. The end product is a blueprint that was developed by Malaysians, for Malaysians, and that will equip Malaysia for the final leg of its journey towards becoming a high-income nation.

Development approach

The MEB (HE) was developed through a collaborative and consultative process driven by leading Malaysian thinkers with over 100 stakeholder groups providing input and thousands of individuals engaged. The stakeholders engaged encompassed Malaysian and global education experts, university administrators, university Boards, the academic community, unions and associations, Ministry staff, industry bodies and employers, relevant agencies, parents, students, and members of the public.

The development process started with a review of the National Higher Education Strategic Plan, or *Pelan Strategik Pengajian Tinggi Negara* (PSPTN). There were three distinct phases:

- PHASE 1 - Review of PSPTN (February 2013 to February 2014): The Ministry started with a comprehensive review of current performance and progress on PSPTN to establish a robust fact base on its strengths and weaknesses.
- PHASE 2 - Conceptualisation of the 10 Shifts (March 2014 to September 2014): Based on the review team's findings and in consultation with stakeholders, the Ministry identified 10 Shifts that would be needed to take the Malaysian higher education system to the next level. The Ministry also carefully aligned these Shifts with existing national plans, most notably the Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education) or the MEB.
- PHASE 3 - Finalisation of the MEB (HE) (October 2014 to March 2015): The details of these 10 Shifts were finalised following another extensive round of public consultation and guidance from the Cabinet.



Engaged stakeholders

- 2,300+** survey responses
- 2,300+** townhall and focus group participants
- 16** international advisors and experts
- 14** Malaysian expert advisors
- 1** national survey
- 18** townhalls
- 9** focus groups

2

- 250+** stakeholder representatives
- 5+** workshops

3

- 90+** HLI Chairmen, Vice-Chancellors, and Chief Executives
- 4,500+** HLI staff
- 40** industry skills councils and professional bodies
- 25+** members of national education councils
- 50+** senior thought leaders and professors
- 140** Parent-Teacher Associations across school districts
- 20+** unions and associations
- 250+** students and alumni
- 500+** Ministry staff
- 30+** engagement sessions

Continuous **online** engagement

MEB (HE) developers

- 35** PSPTN review team members
- 14** chapter writing teams
- 20** lead authors
- 42** writing team members

External research



THE
WORLD
BANK

Scopus



U21Global
Graduate School For Global Leaders



OECD

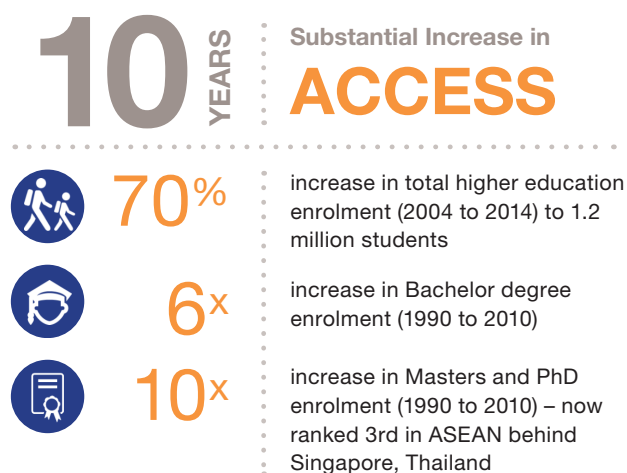
In total, more than 10,500 people were engaged over two years.

Current performance

The Ministry has made significant progress in fulfilling its core aspirations for higher education, most notably in broadening access and expanding overall system and institutional quality.

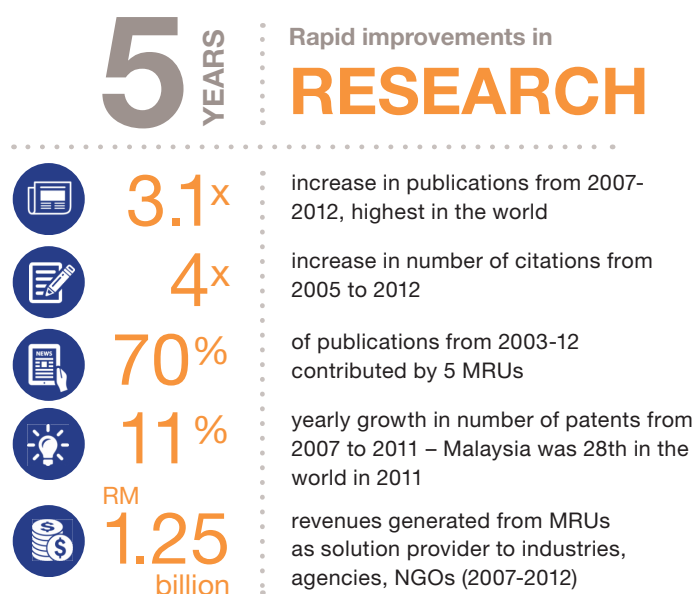
Access to higher education has increased substantially

Malaysia has reached a gross higher education enrolment¹ rate of 48% in 2012. This represents a 70% increase in enrolment over the last decade to reach 1.2 million students in public and private HLEs comprising public universities, polytechnics, community colleges, private universities, private university colleges, and private colleges. Between 1990 and 2010, there has been a sixfold increase in Bachelor degree enrolment and a tenfold increase in Masters and PhD enrolment. With this increase, Malaysia now ranks third² among ASEAN countries in Masters and PhD enrolment, behind Singapore and Thailand.



Research output and quality has expanded rapidly

The number of research articles published by Malaysian universities increased more than threefold between 2007 and 2012, the highest increase in the world, and the number of citations grew fourfold from 2005 to 2012. The five Malaysian Research Universities (MRUs) alone contributed 70% of these publications. Moreover, from 2007 to 2011, the number of patents filed by Malaysia's universities grew 11% each year, placing Malaysia 28th in the world for new patents during that period. Malaysian public universities have also intensified their role as solution providers for industry and community, generating RM1.25 billion in revenues from 2007 to 2012 from research and consulting services.

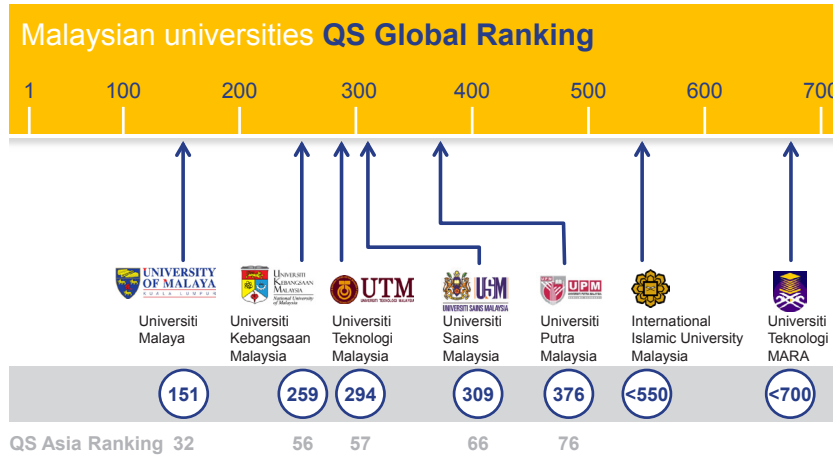


¹ Tertiary Education refers to programmes with a qualification level of Diploma and above or International Standard Classification of Education (ISCED) level 5–Diploma, Advanced Diploma, Postgraduate Diploma, Professional Certificate, Bachelors, Masters, and PhD programmes. higher education is defined as ISCED level 3 and above, and thus encompasses tertiary-level programmes as well as STPM, Matriculation, Foundation, Pre-diploma, Pre-University, and Post-Secondary non-tertiary programmes.

² UNESCO

EXHIBIT 1

Overall rankings of Malaysian universities



Performance on global rankings is strong in Asia, with niche areas of excellence globally

Five of Malaysia’s universities currently rank among Asia’s top 100 universities and *Universiti Malaya* is included in the top 200 globally (Exhibit 1). *Universiti Malaya* is also the leading university among institutions in Organisation of Islamic Cooperation (OIC) countries. Within specific disciplines, Malaysia’s universities are already ranked in the top 200 globally. In 2014, for example, *Universiti Sains Malaysia* was ranked 28th in the QS World University Rankings in the subject area of environmental sciences. 11 other HLIs had at least one department placed in the top 100 globally (Exhibit 2).

EXHIBIT 2

Malaysian universities ranked in top 200 in several subject areas

Subject Area	Top 151-200	Top 101-150	Top 51-100	Top 50
Modern Languages	UM		UM	
Computer Science & Information Systems	UTM, UPM		UM, USM	
Engineering - Chemical	UPM, UTP	UTM	UM, USM	
Engineering - Civil & Structural	UM	UKM, UPM, UTM	USM	
Engineering - Electrical & Electronics		UKM, UPM, USM, UTM	UM	
Engineering – Mechanical, A&M ¹		UKM, UPM, UTM	UM, USM	
Agriculture & Forestry			UPM	
Medicine	UM			
Pharmacy & Pharmacology	UKM, UPM	UM	USM	
Chemistry		USM		
Environmental Sciences	UM	UPM		USM=28
Geography	UKM, UM			
Materials Science	USM, UM			
Mathematics		UKM		
Communication & Media Studies	UPM	USM		
Economics & Econometrics	UKM, USM, UM	UPM		
Education		USM	UPM, UKM, UM	
Law		UKM, UM		
Politics & International Studies			UKM	

- Top 50 in 1 subject area
- 51-100 in 10 subject areas
- 101-150 in 5 subject areas
- 151-200 in 3 subject areas

The Government is deeply committed to higher education as evidenced by its investment level relative to peers


As with the basic education sector, the Government is deeply committed to higher education, and the annual total expenditure on higher education is equivalent to 7.7% of annual Government expenditure (where the Ministry’s expenditure on higher education alone is 5.5% of annual Government expenditure). This is, according to UNESCO benchmarking, the highest among Malaysia’s peers – developed Asian economies (Hong Kong, Singapore, South Korea, Japan), ASEAN neighbours (Indonesia, Thailand, Singapore), and countries with comparable GDP per capita (Chile, Mexico).

¹ Aeronautical & Manufacturing

SOURCE: QS World University Rankings by Subjects 2014

EXHIBIT 3

Malaysia's ranking in the U21 report

Rank out of 50 countries		1	2	3	4	
		RESOURCES	ENVIRONMENT	CONNECTIVITY	OUTPUT	OVERALL
Malaysia		12	26	35	44	28
Asian Neighbours	Singapore	9	11	5	19	10
	Thailand	47	30	30	47	42
	Indonesia	50	37	25	50	48
	Hong Kong	19	4	7	23	15
	South Korea	18	39	32	18	21
Global Benchmarks	USA	4	3	15	1	1
	UK	21	16	3	2	8
	Australia	16	8	8	6	9
TYPE OF METRICS USED	Government expenditure, investments, R&D	Qualitative assessment of policy and regulatory environment	<ul style="list-style-type: none"> Collaboration globally and with industry International student enrolment 	<ul style="list-style-type: none"> Research output Institution rankings Enrolment Employability 	Average score of the four categories  Examples for benchmarking	

SOURCE: Annual report by Universitas 21, a global network of research universities for the 21st century with 26 members that enroll over 1.3 million students and employ over 220,000 staff and faculty. The U21 Index compares national higher education systems for 50 countries

Malaysia's overall performance is consistent with Malaysia's income level

In 2014, the Universitas 21 Report ranked Malaysia's higher education system 28th out of the 50 countries it assessed. The Universitas 21 Report ranks higher education in 50 countries across four categories: resources, environment, connectivity, and output. However, in view of Malaysia's significant investments in higher education (Malaysia is ranked 12 out of 50 in terms of resources invested, but 44 out of 50 in terms of outputs), the Ministry believes there is opportunity to further improve the returns on this investment (see Exhibit 3).

Despite these significant gains, challenges and concerns remain

Employers report that graduates lack the critical thinking and communication skills, and the language proficiency (especially in English) that are essential for success in the 21st century. There are opportunities for more productive collaboration between academia and industry, particularly with regard to research, development, and commercialisation. Additionally, budgetary constraints together with the rising costs of higher education require improvements in productivity and efficiency of the higher education system as well as of HLIs in order to enhance the overall financial sustainability of the system.

Box E-1

University rankings

Many different types of world university rankings exist. The most common ones are the QS World University Rankings, the Times Higher Education World University Rankings, and the Shanghai Academic Ranking of World Universities. These rankings are generally weighted heavily towards research output (for example, citations per faculty, number of papers in top journals). The MEB (HE) uses the QS rankings for reference purposes as it is the oldest global ranking and a ranking that provides a broader perspective, thereby providing the Ministry with a better sense of the system's trajectory.

Rankings can serve as a useful yardstick and benchmark as to where an education system's strengths lie, and how it can improve. However, they should not be seen as the definitive measure of quality. As mentioned above, current international rankings are weighted heavily towards research outcomes. This means that critical factors such as the quality of teaching and learning at the institution or its ability to support disadvantaged students are not captured. Accordingly, world university rankings are but one of many measures the Ministry monitors as it works with HLIs to raise student and institutional outcomes.

System Aspirations

The MEB (HE) will therefore **build on the five aspirations** set out in the MEB of **access, quality, equity, unity, and efficiency**.

	ACCESS	QUALITY
HIGHER EDUCATION	<p>By 2025, the Ministry aspires to increase access to and enrolment in higher education. If Malaysia were to successfully improve tertiary enrolment rates from 36% currently to 53% (and higher education enrolment from 48% to 70%), this will bring Malaysia on par with the highest enrolment levels in ASEAN today. This growth scenario will require an additional 1.1 million places by 2025, mainly through growth in technical and vocational education and training (TVET), private HLIs and online learning. The exact pace and nature of the expansion plan will be determined in close collaboration with industry to ensure supply matches demand.</p>	<p>The Ministry's aspiration covers three aspects: quality of graduates, quality of institutions, and quality of the overall system. On quality of graduates, the Ministry aspires to increase the current 75% graduate employability rate to more than 80% in 2025. On quality of institutions, only one of Malaysia's universities is currently in the Top 200 QS global rankings. By 2025, the Ministry aims to place one university in Asia's Top 25, two in the Global Top 100, and four in the Global Top 200. Finally, on quality of the overall system, the Ministry aspires to raise its U21 ranking for research output from 36th out of 50 countries to the top 25, and to increase the number of international students in HLIs from 108,000 today to 250,000 students in HLIs and schools by 2025.</p>
PRESCHOOL TO POST-SECONDARY EDUCATION	<p>100% ENROLMENT</p> <p>Across all levels from preschool to upper secondary by 2020</p>	<p>TOP 3rd OF COUNTRIES</p> <p>In international assessments such as PISA and TIMSS in 15 years</p>

EQUITY

Although there is currently a lack of comprehensive data to effectively assess equity in the system, the Ministry aims to ensure that all Malaysians have the opportunity to fulfil their potential regardless of background. For example, the Ministry is committed to improving the enrolment rate and completion rate of students from socio-economically disadvantaged backgrounds and communities.

50%
REDUCTION

In achievement gaps (urban-rural, socio-economic, and gender) **by 2020**

UNITY

Similarly, while there is no widely accepted method yet to measure unity, the Ministry is committed to ensuring that enrolment in HLIs reflects the mix of Malaysia's ethnicities. The aim is to create an education system that provides students with shared values, shared experiences, and common aspirations by embracing diversity.

SHARED
VALUES AND
EXPERIENCES

An education system that gives children **shared values** and **experiences** by embracing diversity

EFFICIENCY

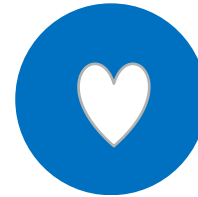
In terms of efficiency, the Ministry aims to maximise the return on investment in higher education and to maintain the current levels of Government expenditure per student across public institutions. Malaysia also aspires to rise from 44th out of the 50 countries in the U21 output ranking that covers research, enrolment, and employability to be in the top 25 by 2025.

MAXIMISES
STUDENT
OUTCOMES

A system which **maximises student outcomes** within current budget

Student Aspirations

The Ministry of Education will continue to use the National Education Philosophy's vision of a balanced education as its foundation for individual student aspirations. The preschool, primary, secondary, and higher education systems share a vision of what the outcome of a Malaysian education should look like, and what that means for individual students. The Ministry emphasises the balance between both knowledge and skills (*ilmu*) as well as ethics and morality (*akhlak*). The student aspirations in the MEB are built around six primary attributes: ethics and spirituality, leadership skills, national identity, language proficiency, thinking skills, and knowledge. These are the same six attributes for students that the higher education system is anchored on.



Ethics & Spirituality

HIGHER EDUCATION

Ethically and morally upright, spiritually grounded, compassionate and caring; appreciates sustainable development and a healthy lifestyle.



Leadership Skills

Is an effective communicator, emotionally intelligent and able to work across cultures; is socially responsible, competitive, resilient, and confident.

PRE-SCHOOL TO POST-SECONDARY EDUCATION

Possesses solid moral foundation and courage to make right decisions.

Has strong communication skills, is entrepreneurial, resilient, can lead and work in teams.

AKHLAK
(Ethics and Morality)



National Identity

Has pride in Malaysia and an understanding of Malaysia in relation to the world.



Proudly identifies as Malaysian and embraces diversity.



Language Proficiency

Proficient in *Bahasa Melayu* and English, and encouraged to learn one additional global language.



Operationally proficient in at least *Bahasa Melayu* and English.



Thinking Skills

Appreciates diverse views, is able to think critically and be innovative, has problem-solving initiative, and an entrepreneurial mindset.



Is inquisitive and innovative, can apply, create, and connect knowledge to provide solutions.



Knowledge

Has mastery of own disciplines, is able to harness, connect and apply knowledge learnt, and has an appreciation of culture, arts, and Science, Technology, Engineering and Mathematics (STEM).



Has mastery of core subjects and general knowledge about the world.

BALANCE

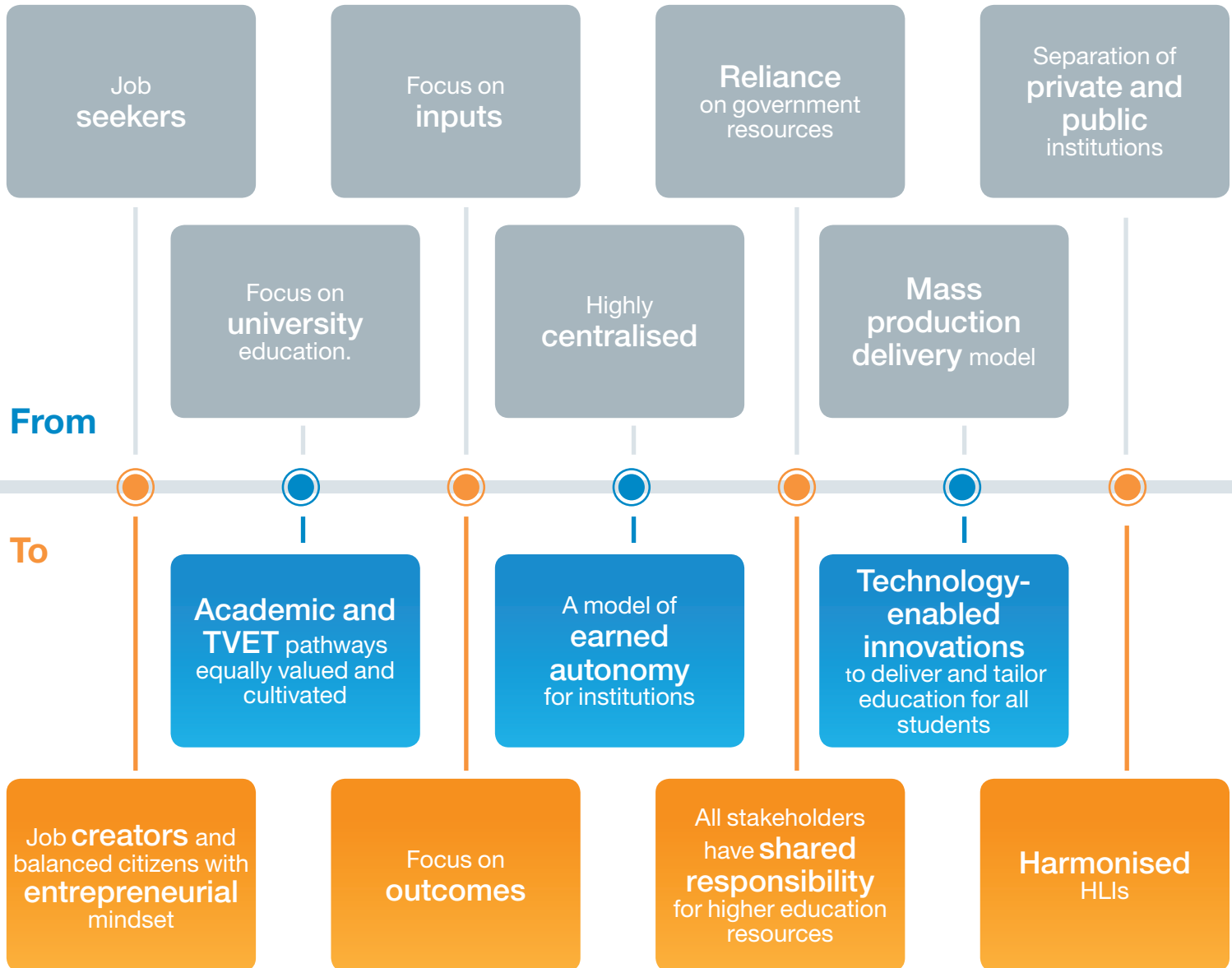
ILMU
(Knowledge and Skills)

The new higher education system

Accordingly, the Ministry's overriding aspiration is to create a higher education system that ranks among the world's leading education systems and that enables Malaysia to compete in the global economy. The MEB (HE) builds on the system's achievements to date and proposes major changes in the way the Ministry and system will operate in order to realise this goal (see Exhibit 6). Specifically, the Ministry aspires to:

- Instil an entrepreneurial mindset throughout Malaysia's higher education system and create a system that produces graduates with a drive to create jobs, rather than to only seek jobs;
- Construct a system that is less focused on traditional, academic pathways and that places an equal value on much-needed technical and vocational training;
- Focus on outcomes over inputs and to actively pursue technologies and innovations that address students' needs and enable greater personalisation of the learning experience;
- Harmonise how private and public institutions are regulated, and to transition from the current, highly-centralised governance system for HLIs to a model based on earned autonomy within the regulatory framework; and
- Ensure the financial sustainability of the higher education system by reducing HLIs reliance on government resources and asking all stakeholders that directly benefit from it to contribute as well.





The MEB (HE) will generate major shifts in the way the higher education system operates

What would it take for higher education enrolment to be among the highest in ASEAN?

The Ministry aims to expand higher education enrolment over the course of the next decade. The exact nature of the expansion in terms of both quantity of seats and profile of programmes will be determined in close collaboration with industry to ensure that supply matches demand

2012

Current level of 36% tertiary enrolment

(1.4M students³
48% higher education)

ANNUAL GROWTH

2025

Projected level of 53% tertiary enrolment

(2.5M students³
70% higher education)

Private HLIs

455K

5.1%

867K

Public Universities

545K

2.6%

764K

TVET enrolment

TVET Institutions

114K

MOE

134K

Non-MOE

7.8%

301K

MOE

355K

Non-MOE

Other Ministry Institutions⁴

172K

1.4%

205K

³ Includes foreign students in Malaysian HLIs (97,000 in 2012 and 250,000 in 2025)

⁴ Includes Malaysia Institute of Teacher Education (IPGM) and Matriculation

The 10 Shifts



To achieve these system and student aspirations, the MEB (HE) outlines 10 Shifts that will spur continued excellence in the higher education system. All 10 Shifts address key performance issues in the system, particularly with regard to quality and efficiency, as well as global trends that are disrupting the higher education landscape.

The first four Shifts focus on outcomes for key stakeholders in the higher education system, including students in academic and TVET pathways, the academic community, as well as all Malaysians participating in lifelong learning. The other six Shifts focus on enablers for the higher education ecosystem, covering critical components such as funding, governance, innovation, internationalisation, online learning, and delivery.

1 Holistic, Entrepreneurial and Balanced Graduates



Why Does It Matter



There is a mismatch in the supply and demand of graduates, with employers reporting that graduates lack the requisite knowledge, skills and attitudes. This mismatch is only expected to get tougher to resolve as technological disruptions reshape industries and alter the types of jobs available. Preparing Malaysian

youth to navigate this uncertain future not only requires imbuing them with transferrable skills and sound ethical foundations, but also the resilience and enterprising spirit to forge new opportunities for themselves and others. It is important to move from a world of job seekers to a world of job creators.

What Will Success Look Like



Every graduate will have the relevant disciplinary knowledge and skills (*ilmu*), ethics and morality (*akhlak*), as well as the appropriate behaviours, mindsets, cultural, and civilisational literacy (*beradab*) to advance them to a high level of personal well-being. They will be global citizens with a strong Malaysian identity, ready and willing

to contribute to the harmony and betterment of the family, society, nation, and global community. Such holistic, entrepreneurial, and balanced graduates are a natural extension of the goal of the Malaysian basic education system to develop values-driven Malaysians.

How Will We Achieve This



To achieve these outcomes, the Ministry and HLIs will focus on developing more holistic and integrated curricula and enhancing the ecosystem for student development. Key initiatives include:

- **Enhancing the student learning experience** by expanding industry collaboration in the design and delivery of programmes; increasing the use of experiential and service learning to develop 21st century skills, and leveraging technology-enabled models to enable more personalised learning;
- **Devising an integrated cumulative grade point average (CGPA) system** to assess student's holistic, entrepreneurial, and balanced development.

This new system will not only assess knowledge and thinking skills (as is the current practice) but also the other primary attributes that comprise Malaysia's student aspirations: ethics and spirituality, leadership skills, national identity, and language proficiency; and

- **Creating opportunities for students and academic staff to acquire entrepreneurial skills** and pursue their own enterprises through sabbaticals, industry secondments, business incubators, and green lane policies that support student-owned businesses.

2 Talent Excellence



Why Does It Matter



The quality of Malaysia's HLIs, and therefore the higher education system, can only be good as the quality of its academic community, from educators, researchers, institutional leaders, practitioners, to academic support staff. At present, however, rigid career development pathways restrict the degree to which HLIs are able to attract, recruit, and retain the

best talent. There is also insufficient specialisation based on HLI's strengths and focus areas. The higher education system needs to move from a one-size-fits-all world, to one where HLIs have diversified career pathways and different models of institutional excellence.

What Will Success Look Like



HLIs will be able to attract, develop, and retain excellent talent through specialised pathways for educators, researchers, leaders, and practitioners. The academic community will also benefit from a conducive, supportive, and meritocratic environment with better continuous

professional development programmes that enable them to meet changing responsibilities and expectations. Malaysia's talent will be respected, referred, and relevant, both locally and internationally.

How Will We Achieve This



To achieve these outcomes, the Ministry will encourage HLIs to pursue different forms of institutional excellence, diversify career pathways, and introduce systematic mechanisms for talent recruitment and development. Key initiatives include:

- **Positioning HLIs according to their recognised areas of institutional excellence**, namely excellence in overall research, excellence in niche areas of research, and excellence in teaching and instruction. Both public and private HLIs will be encouraged and incentivised to aspire for these different forms of excellence and to continuously improve their performance in their areas of specialisation and focus;
- **Enabling HLIs to develop multi-track career pathways** for inspiring educators, accomplished researchers, experienced practitioners, and transformational institutional leaders; and
- **Providing best practice guidelines** to support both public and private HLIs in developing stronger end-to-end talent development strategies for both local and international talent, using the New Academia talent framework covering the resourcing, recruiting, rewarding, and retention of talent.

3 Nation of Lifelong Learners



Why Does It Matter



Lifelong learning (LLL) enables Malaysians to meet the changing skill needs of a high-income economy and maximises the potential of individuals who are currently outside the workforce through reskilling and upskilling opportunities. It also enables the development of personal interests and talents for

a more fulfilled life. Malaysia needs to move from a world where education is seen as something that happens only during one's youth, to a world where Malaysians of all ages constantly seek out learning opportunities to enrich themselves.

What Will Success Look Like



Lifelong learning will become a way of life for all Malaysians. There will be high quality formal, non-formal, and informal programmes in a wide range of disciplines and topics to support both professional and personal development.

There will be learning communities in every organisation, with formal mechanisms to recognise prior experience and learning. Everyone will have access to these opportunities, regardless of income level or background.

How Will We Achieve This



To achieve these outcomes, the Ministry will increase public awareness of the benefits of LLL, raise the quality of existing programmes and introduce more innovative programmes to broaden the appeal of LLL. Key initiatives within this Shift include:

- **Creating a framework for recognising prior learning**, including the establishment of clear pathways for re-entry into the education system, establishing a national credit system to enable accumulation of modular credits over time, and stipulating clear criteria for recognising prior experience;
- **Launching stakeholder engagement programmes** (for example, MyCC loyalty programme, 1Family Multiple Skills Programme) that incentivise participation, and improving the existing marketing infrastructure (for example, smartphone applications) to make it easier for the public to search for information on available programmes; and
- **Continuing to provide financial support** to disadvantaged groups and tax reduction incentive schemes to companies, and to work with financial institutions to create financial assistance programmes for all groups.

4 Quality Technical and Vocational Education and Training (TVET) Graduates



Why Does It Matter

Under the Economic Transformation Programme (ETP), Malaysia will require a 2.5-fold increase in TVET enrolment by 2025. At present, however, there is an undersupply of TVET workers in 10 of the 12 National Key Economic Area (NKEA) sectors. Further, TVET is seen as a less attractive pathway than university education, thereby limiting the number of

students, particularly high-performing ones, who apply for such courses. Malaysia needs to move from a higher education system with a primary focus on university education as the sole pathway to success, to one where academic and TVET pathways are equally valued and cultivated.



What Will Success Look Like

The Ministry – through its community colleges, vocational colleges, and polytechnics – will be a premier higher education TVET provider that develops skilled talent to meet the growing and changing demands of industry, and promotes

individual opportunities for career development. Enrolment in TVET programmes will expand significantly, through extensive partnerships with industry, to ensure supply matches demand.



How Will We Achieve This

To achieve these outcomes, the Ministry will intensify industry involvement and partnerships, streamline qualifications, improve coordination across the Ministry's TVET providers and enhance branding efforts. Key initiatives include:

- **Enabling industry to lead curriculum design and delivery** through new partnership models and lifting the quality of delivery through increased apprenticeship, hands-on training, real-life simulations, and specialised employer training programmes;
- **Enhancing coordination across the Ministry's various TVET providers** to eliminate duplication of programmes and resources, enable greater specialisation in areas of expertise, and improve cost efficiency; and
- **Coordinating with other ministries and agencies** offering TVET programmes to streamline the national qualification framework, ensure alignment with major industry associations, and pursue international accreditations for TVET programmes.



5 Financial Sustainability



Why Does It Matter



Over the next decade, as costs continue to rise, Malaysia will need to deliver quality higher education to almost twice as many students if it is to reach the highest enrolment levels among ASEAN nations. The challenge is that total Government expenditure on higher education has been rising at a rate of 14% per annum, driven largely by subsidies to public HLIs, where 90% of their expenditure is Government funded. Additionally,

current student loan repayment rates for the National Higher Education Fund Corporation or *Perbadanan Tabung Pendidikan Tinggi Nasional* (PTPTN) need to be significantly improved. Malaysia needs to move from a system that is highly dependent on Government resources and focused on inputs to one that is focused on outcomes and where all stakeholders contribute, proportionate to their means.

What Will Success Look Like



There will be continued Government investment of a large portion of the national budget and GDP in the higher education system. Return on investment will, however, improve significantly to match that of peer countries. Public and private HLIs will draw on diverse sources of funding to allow continuous improvement in the quality

of their programmes, and more prudent and innovative use of their resources. There will be more targeted support for socio-economically disadvantaged students to make enrolment more affordable and accessible to everyone who is eligible.

To achieve these outcomes, the Ministry will link government funding to performance, reform existing student financing mechanisms, and encourage HLIs to diversify funding sources. Key initiatives include:

- **Improving the funding formulae for public HLIs** by replacing block grants with performance-linked and per student funding, implementing five year performance contracts (3+2), and targeting government investment in priority areas;

- **Enhancing PTPTN performance and sustainability** by improving repayment rates, shifting to income-contingent loans, and linking access to student loans with the performance and quality standards of HLIs; and
- **Incentivising creation of endowment and waqf funds**, as well as encouraging contributions to higher education, for example, through the provision of matching grants for HLIs during the initial fund-raising period.

How Will We Achieve This



6 Empowered Governance



Why Does It Matter



Good governance is essential for the efficient functioning of any organisation and for building great institutions. In Malaysia, many decision rights are still concentrated at the Ministry level rather than at HLIs, creating supervisory burden and potential inefficiencies. These constraints also make it difficult for HLIs to move quickly in response to

global and local trends. Malaysia needs to move from a higher education system where the Ministry is a tight controller, to one where the Ministry is focused primarily on its role as policymaker and regulator, and where HLIs are empowered to steer their own journey of growth.

What Will Success Look Like



The Ministry will have a portfolio of fully-autonomous and semi-autonomous HLIs based on their readiness and capacity for decision-making. These HLIs 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.

How Will We Achieve This



To achieve these outcomes, the Ministry will focus on its role as a regulator and policymaker, and give HLIs greater decision-making power in return for clear accountability against a set of pre-agreed outcomes. Key initiatives include:

- **Defining five-year (3+2) outcome-based performance contracts** between the Ministry and HLIs, with public HLI funding at risk if performance goals are not met, and incentives for exceeding targets;
- **Strengthening quality assurance in the private sector**, by requiring private HLIs to participate in enhanced national quality assurance frameworks (for example, SETARA and MyQuest) for continued access to government funding (for example, research grants and PTPTN student loans). The degree of access will be linked to their participation and level of performance against these frameworks and standards; and
- **Moving decision rights from the Ministry to the leadership of public universities**, improving the governance effectiveness of HLIs, and building the capacity and capabilities of University Boards and institutional leaders to take on these increased responsibilities.

7 Innovation Ecosystem



Why Does It Matter



Malaysia aspires to make innovation a major driver of national economic growth. While research output is improving — Malaysia ranked 23rd for number of publications in 2013, up 11 places from 34th in 2009 — more can still be done. For example, Malaysia ranks 43rd out of 110 countries on number of patents, and engagement levels with industry and community

are still not as intensive or widespread as desired. Malaysia needs to move from academia operating in isolation, to the quadruple helix of academia, industry, government, and local communities coming together in partnership for the incubation, development, and commercialisation of ideas.

What Will Success Look Like



The Ministry will facilitate the development of innovation ecosystems in selected strategic areas that are critical to the nation's economic growth. These ecosystems will support both university-driven and demand-driven research, development, and commercialisation models,

with significant improvements on a wide range of research measures. HLIs, in particular, will intensify their role as a solution provider for other stakeholders, and as a developer of skilled research talent.

How Will We Achieve This



To achieve these outcomes, the Ministry will elevate a few priority research areas critical to Malaysia's growth, catalyse private sector and industry involvement, as well as create a supportive environment to facilitate the commercialisation of ideas. Key initiatives include:

- **Focusing on creating scale and growth** in a few strategic research areas which are linked to national priorities for economic growth, and where Malaysia has distinctive capabilities;
- **Playing a catalytic role in securing investments**, particularly through matching schemes like the Private-Public Research Network (PPRN), and redesigning existing financing criteria and grant review processes for greater transparency and accountability; and
- **Incentivising HLIs to establish supporting systems for the commercialisation of ideas**, such as technology transfer offices, mechanisms for the co-utilisation of infrastructure, enhanced data monitoring systems, and talent development programmes.

8 Global Prominence



Why Does It Matter



Malaysia's higher education system is already a major source of income for the country, given Malaysia's status as a top 10 destination for international students. Increasing competition from other education hubs will, however, require the strengthening of Malaysia's higher education value proposition, capacity, and capabilities, in order to enhance the

appeal and competitiveness in the region and beyond. Malaysia needs to raise the nation's higher education brand even further, from an attractive destination known for good value for money and quality of life, to one that is also recognised, referred to, and respected internationally for its academic and research expertise.

What Will Success Look Like



Malaysia will be known as an international education hub with a difference, one that provides values-driven and globally relevant education, and is recognised by students for its balance of quality and affordability, good quality of life, and rich cultural experiences. Malaysia will expand enrolment to reach 250,000 international

students by 2025, and reach new markets through more innovative programmes and partnerships. Above all, Malaysia will be a globally-connected higher education player that is renowned for its academic and research expertise, particularly in niche areas like Islamic banking and finance, or tropical related science and technology.

How Will We Achieve This



To achieve these outcomes, the Ministry will enhance the end-to-end international student experience, increase brand visibility, and strengthen existing and new markets for international students. Key initiatives include:

- **Collaborating with other ministries and agencies** to improve and streamline immigration procedures and processes to match international best practices, for example, through the introduction of multiple year student visas and the provision of an accelerate "green lane" approach for students from HLIs that have consistently demonstrated high quality standards;
- **Increasing the proportion of postgraduate international students** and students from high priority markets such as ASEAN nations, by diversifying and raising the quality of niche programmes; and
- **Strengthening the promotion and marketing** of Malaysia's higher education system through targeted measures such as hosting major international education conferences and strengthening MyAlumni.

9 Globalised Online Learning



Why Does It Matter



Internet penetration in Malaysia currently stands at 67% – the seventh highest penetration rate across Asia. This puts Malaysia in a good position to harness the power of online learning to widen access to good quality content, enhance the quality of teaching and learning, lower the cost of delivery, and bring Malaysian expertise to the global community. There are significant opportunities to achieve the desired

outcomes first set forth in the National e-learning Policy (*Dasar e-Pembelajaran Negara* or *DePAN*). Malaysia needs to move from a mass production delivery model to one where technology-enabled innovations are harnessed to democratise access to education and offer more personalised learning experiences to all students.

What Will Success Look Like



Blended learning models will become a staple pedagogical approach in all HLIs. Students will benefit from robust cyber infrastructure that can support the use of technologies like video-conferencing, live streaming and Massive Open

Online Courses (MOOCs). Malaysian HLIs will also develop MOOCs in their niche areas of expertise, while participating in international MOOC consortiums and building the Malaysia education brand globally.

How Will We Achieve This



To achieve these outcomes, the Ministry will work with HLIs to build the capabilities of the academic community, and explore the establishment of a national e-learning platform to co-ordinate and spearhead content development. Key initiatives include:

- **Launching MOOCs in subjects of distinctiveness** for Malaysia such as Islamic banking and finance, in partnership with high-profile international MOOC consortiums like EdX and Coursera, so as to build Malaysia's global brand;
- **Making online learning an integral component** of higher education and lifelong learning, starting with the conversion of common undergraduate courses into MOOCs, and requiring up to 70% of programmes to use blended learning models; and
- **Establishing the required cyber infrastructure** (physical network infrastructure, info structure, platform, devices and equipment) and strengthening the capabilities of the academic community to deliver online learning at scale.

10 Transformed Higher Education Delivery



Why Does It Matter



The Ministry recognises that a well-conceived strategy or plan is only the starting point. The MEB (HE) will not succeed without effective implementation, as well as commitment and collaboration across the Ministry, HLIs, the academic community, and relevant stakeholders. Change must begin at the Ministry, including role modelling the ability to learn, relearn, and unlearn existing processes, skills, and

behaviours. Avoiding the common pitfalls of large-scale transformation programmes will require the adoption of new ways of working internally and with other stakeholders. Malaysia needs to move from a system focused on inputs and a separation of private and public institutions, to a harmonised higher education system focused on delivery, accountability, transparency, and outcomes.

What Will Success Look Like



The Ministry will catalyse transformation among private and public HLIs, and lead the way in civil service transformation, by first transforming itself. The Ministry will break down operating silos across departments, forge stronger partnerships with HLIs, industry, and community, and improve

its efficiency and effectiveness in its role as a regulator and policymaker. HLIs will embark on their own tailored transformation journeys, with a vanguard of public and private HLIs spearheading the reforms and serving as role models for other institutions.

How Will We Achieve This



To achieve these outcomes, the Ministry will redefine the roles, organisation, and operating model of the Ministry, enhance delivery capabilities within the Ministry, and harmonise across public and private institutions. Key initiatives include:

- **Launching the University Transformation Programme** by working in close partnership with pilot HLIs, including identifying, codifying, piloting best practices and tools, and disseminating “playbooks” (*buku panduan*) to all HLIs on critical improvement areas;
- **Restructuring the Ministry organisation** to focus on core functions, create stronger links between HLIs, the community, and industry, and promote greater efficiency in operations, particularly for key frontline services like student admissions and international student services; and
- **Create greater consistency in performance standards and regulations across public and private HLIs**, by enhancing MQA processes and quality assurance frameworks, and eliminating unnecessary red tape.

What impact will this transformation journey have?

As with the reform of the preschool to post-secondary education system outlined in the MEB, the transformation of the higher education system will lead to a collective set of desirable benefits, rights, and corresponding responsibilities for each stakeholder group.

Students will...

... enjoy higher quality programmes that use **experiential and technology-enabled learning models** to offer more personalised and engaging learning experiences that push the limits of their potential;

.... **graduate with a balance of *akhlak* and *ilmu* that better prepares them for employability** in today's global economy, and for grappling with the complexities and new challenges of the 21st century;

... **have more and better choices** through new models of learning such as Massive Open Online Courses (MOOCs), greater competition across HLLs, and better guidance on educational pathways and career options;

... **receive financial support that is commensurate with their needs** to ensure that affordability does not become a barrier for any eligible student. Further, students receiving student loans will only need to pay back if they eventually benefit from their education; and

... **be able to re-enter the world of learning at any time in their life** through formal, non-formal, and informal pathways, in order to pursue their passions and ongoing professional development. leadership development programmes;

In return, students will be asked to honour the investment being made in their future by fully embracing the opportunities afforded to develop them as holistic, entrepreneurial, and balanced individuals, upholding financial commitments such as loan repayments, and paying it forward by finding ways, big and small, to serve the community, nation, and world.

The academic community will...

... enjoy more attractive **differentiated career pathways and performance-based rewards** that support specialisations in teaching, research, institutional leadership, and allow practitioners and professionals more flexibility in participating in higher education and sharing of expertise;

... **have the support they need to succeed in their new roles** through targeted professional development programmes – from industry and cross-institution mobility programmes, to leadership development programmes;

... **enjoy greater decision-making rights in areas such as curriculum, financial management, and talent management**, so as to enable their institutions to move with greater agility and speed in responding to global and local trends; and

... **benefit from closer integration with industry as well as local and international communities**, through innovative partnership models on funding, teaching and learning, as well as research, development, and commercialisation.

In return, the academic community will be asked to stay open to and adopt these new ways of working, to work collaboratively with all stakeholders during this transformation journey, and to model the holistic, entrepreneurial, and balanced mindsets, values, and behaviours expected of students.

HLI leaders will...

... **be empowered with greater decision-making rights in public HLIs** which will be devolved to them as and when they are ready, in order to enhance their agility in responding to local and global trends;

... **enjoy more streamlined regulatory processes** that eliminate unnecessary red tape, harmonise standards and requirements across public and private HLIs, and set crystal-clear expectations on performance;

... **benefit from a tailored approach of support, with recognition and incentives** for different forms of institutional excellence, and guidance on critical topics such as governance and talent development via “playbooks” and a sharing of international and local best practices; and

... **be able to focus on what really matters** through a performance management and quality assurance system that focuses on outcomes rather than inputs and processes.

In return, HLI leaders will be asked to embrace their role as transformational change leaders — charting visionary journeys for their institutions, rallying all stakeholders in the effort to turn this vision into reality, and modeling the mindsets, values and behaviours expected of the HLI community.

Industry will...

... **be able to secure learned, values-driven talent who are better prepared for work** with the right knowledge, skills, behaviours, attitudes, and mindsets that industry needs;

... **be able to partner more easily with the Ministry and HLIs** to solve its most pressing challenges and developing cutting-edge solutions for specific industry or market needs;

... **benefit from greater support from HLIs on lifelong learning** for their employees, with more opportunities and options for reskilling and upskilling so as to continuously enhance the capabilities of the existing workforce; and

... **benefit from enhanced responsiveness and service quality** from the Ministry and HLIs, especially on access to qualified graduates who are better informed about careers and jobs.

In return, industry will be asked to step forward as active partners in the transformation journey, contributing across the entire education and innovation value chain, from curriculum design and delivery, to funding and placements for graduates, as well as research, development, and commercialisation.

Ministry officers will...

... **be able to focus on the Ministry’s role as policymaker and regulator** in higher education, with a streamlined set of activities that eliminates bureaucratic red tape and micro-management of HLIs;

... **have greater autonomy and decision-making power** to maximise the effectiveness and efficiency of the Ministry’s functions, particularly in frontline services with critical stakeholder touchpoints and interactions such as student admissions and financial services;

... **receive targeted support, professional development, and resources** as they learn, unlearn, and relearn the skills they will need to fulfill these new roles and responsibilities; and

... **work in a collaborative and transparent environment**. Silos between divisions will be broken down, and roles and responsibilities will be clarified and streamlined to eliminate duplication of functions and activities.

In return, Ministry officers will be asked to stay responsive to feedback from HLIs, industry, and the public, to focus on outcomes, not bureaucratic processes and inputs, and act as role models and champions for the changes the system is about to undergo.

Initiative implementation roadmap

The envisioned 11-year transformation of the higher education system is broad and complex. To ensure that the system is not overtaxed and execution fatigue is avoided, the Ministry has carefully sequenced the strategies and initiatives of the 10 Shifts across three waves to build successively on one another as the system's capacity and capabilities, and the readiness levels of HLIs improve. The first wave will focus on establishing the building blocks for the transformation; the second wave will introduce more structural improvements to accelerate the pace of change; and finally, the third wave will strengthen the global prominence of Malaysia's higher education system. These waves have been aligned with that of the MEB:

- **2015:** Secure quick wins to build momentum and lay foundation
- **2016-2020:** Accelerate system improvement
- **2021-2025:** Move towards excellence with increased operational flexibility

As with the MEB, the Government and the Ministry are committed to new ways of working in order to deliver significant, sustainable, and widespread results, including:

- **Sustaining leadership commitment and focus at the top:** Top Government and Ministry leadership, including the Prime Minister and the Ministry of Education senior leadership, are committed to regularly reviewing

progress, providing guidance, and resolving issues with regard to the implantation of the MEB (HE). The Ministry leadership is also committed to identifying, cultivating, and developing the leadership capabilities of the next generation of system leaders to ensure continuity and consistency of the transformation efforts;

- **Intensifying internal and external performance management:** The Ministry will establish a performance management system that sets high expectations of individuals and institutions through clear KPIs. This system will invest in capability building to help individuals achieve their targets, reward strong performance, and address poor performance without creating a culture of blame. The Ministry will also publish performance results annually so that the public can track progress on the implementation of the MEB (HE); and
- **Engaging and partnering with key stakeholders:** As the MEB (HE) initiatives are rolled out, the Ministry will continue to solicit feedback from all relevant parties, particularly HLIs, students, and industry, and will regularly communicate progress and issues to ensure that the entire education system is engaged in the transformation process.

Build momentum and lay foundation

(2015)

- **Developing integrated assessment methodology** by HLIs to reflect knowledge and skills (*ilmu*), ethics and spirituality (*akhlak*);
- **Introducing experiential learning, service learning and entrepreneurial immersion** into curriculum, and new **Job Creator** framework for creating/growing student businesses;
- **Launch new CEO faculty programme** for senior industry or public sector leaders to teach in public HLIs;
- **Enhancing repayment rates** on PTPTN student loans, including incentives and penalties;
- **Launching of tailored University Transformation Programmes** by pilot HLIs as role models for transformation programmes of other HLIs;
- **Codifying best practices into “playbooks”** on critical improvement areas for adoption by HLIs:
 - Enhancing governance and board effectiveness;
 - Strengthening performance management;
 - Improving degree productivity and cost efficiency;
 - Establishing alternative income sources, including endowment funds and *waqf*;
 - Achieving transparency and accountability in financial reporting; and
 - Strengthening career pathways and leadership development.
- **Initiating TVET enhancements** with industry-led curriculum design and delivery, upgrading of teaching staff, and portfolio of high technology and high value programmes;
- **Aligning research priorities with other ministries and agencies** and elevating a few research areas critical to economic growth where Malaysia has a competitive advantage;
- **Redesigning financing criteria** for research grants and enhancing the grant review and monitoring process;
- **Defining clear guidelines for self-accreditation and co-regulation** for private HLIs in consultation with stakeholders;
- **Reviewing enhancements to Malaysian student admissions process** (applications and matching) and end-to-end experience for international students;
- **Remodelling of the coordination body for Malaysian International Scholarships**, and introducing attractive pathways for top international students and scholars;
- **Designing “flagship” MOOCs by HLIs in areas of distinctiveness for Malaysia**, and revising the National e-Learning Policy; and
- **Redesigning of Ministry organisation and operating model** to focus on higher education regulator and policymaker role.

2

Accelerate system improvement

(2016-2020)

- **Intensifying industry and community engagement, and implementing 3+1 or 2+2 undergraduate programmes** with off-campus or industry-based learning;
- **Enhancing the MPU framework and entrepreneurship programmes**, including more practical components and incentives for excellence in entrepreneurial learning;
- **Defining criteria and incentives to recognise different forms of institutional excellence**, such as excellence in research, in niche areas, and in teaching;
- **Facilitating implementation of talent mobility programmes and multi-track career pathways** by HLIs;
- **Developing a new Higher Education Talent Roadmap**, including facilitating recruitment of international academic leaders, and the launch of leadership programmes for HLI leaders;
- **Establishing a framework for recognising prior learning**, with clear pathways and a national credit system;
- **Harmonising the national TVET qualifications framework** with other agencies, and facilitating international accreditation;
- **Introducing new funding formulae and performance contracts for public universities** with clear KPIs;
- **Transforming PTPTN into the Malaysia Education Fund**, with enhanced savings schemes, incentives, and the new *Tabung Siswa* investment fund;
- **Implementing income-contingent loans** for students, and linking access to loans to HLI quality standards and performance;
- **Introducing incentives for establishment of endowment funds or *waqf*** by both private and public HLIs, including matching grants and tax exemptions;
- **Enhancing empowered governance for public HLIs** focusing on board composition, academic autonomy, governance effectiveness, human resources, funding, and procurement autonomy;
- **Assessing establishment of an integrated Higher Education Act** for all types of HLIs (public and private);
- **Expanding matching schemes** for joint research funding from industry and community, and **improving regulations and guidelines for commercialisation** (in collaboration with stakeholders);
- **Accelerating technology transfer** by enhancing support functions by HLIs, and matching stakeholders to promote **infrastructure co-utilisation**;
- **Implementing reforms on international student management**, including streamlining immigration processes, introducing multi-year visas and “green-lane” approach for HLIs with constantly high quality standards;
- **Enhancing promotion of Malaysia’s education brand** and strengthening MyAlumni;
- **Enhancing lifelong learning and online learning infrastructures**, promoting broader adoption, facilitating credit transfers, and innovating on programmes; and
- **Enhancing institutional ratings system and improving MQA quality assurance and approvals** (for example, by simplifying processes).

3

Move towards excellence with increased operational flexibility

(2021-2025)

- **Reviewing policies and guidelines** to facilitate incorporation of 21st century skills into the HLI curriculum to better address global trends, disruptions, and challenges;
- **Completing the transition to multi-year performance contracts** for all public universities;
- **Completing the transition of all public universities towards earned autonomy**, and full implementation of enhanced self-regulation and co-regulation for private HLIs;
- **Achieving financial sustainability of the Malaysia Education Fund** (formerly PTPTN), as well as a sustainable diversified **funding model** for public universities with **high productivity** levels;
- **Assessing implementation of greater autonomy for polytechnics** after completing the conversion of *Politeknik Malaysia* into a statutory body;
- **Ongoing enhancements to the quality assurance and institutional ratings system**, benchmarked against international standards;
- **Completing the rebranding of TVET** to achieve a dual-pathway higher education system where academic and TVET pathways are equally valued;
- **Delivering results on University Transformation Programmes by HLIs**, with several HLIs (both public and private) achieving regional and global prominence in their areas of focus and specialisation;
- **Ongoing review on progress of initiatives to enhance innovation ecosystem** efficiency and effectiveness, and implement new interventions where required;
- **Continuing diversification of Malaysia's international student population**, targeting top sending countries as well as strategic geographies for Malaysia;
- **Ongoing review and enhancement of Malaysia's global education brand** and international student processes to match international practices; and
- **Completing the establishment of international research laboratories** or centres of excellence with prominent international partners.

..... The higher education transformation will take place over 11 years

The transformation of the higher education system is a national priority. The Ministry expects that the transformation of both the system and HLIs will be a medium-to long-term journey where full benefits are expected to be gained over the long run. Although the transformation journey will focus on long-term, sustainable results, it is expected that significant impact and changes will be visible in the short term. These changes will form the foundation for future results.





Conclusion

The MEB (HE) proposes major reforms to Malaysia's higher education system in order to accelerate the positive upward trajectory of the system. It places the needs and interests of learners at the heart of the system, and reiterates the Government's longstanding commitment to providing equitable access to high-quality education of international standards. It calls for more intensive and frequent industry and community engagement, collaboration, and partnerships. The MEB (HE) also aims to unleash and empower both private and public HLIs to push the boundaries of innovation and strive for institutional excellence in all its forms. Above all, it will only be through the collective efforts of all stakeholders that the higher education system can be transformed to prepare Malaysians for the challenges and opportunities of an ever-changing world. The future of Malaysian youth and the nation demands nothing less.

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Published by:
Kementerian Pendidikan Malaysia
No. 2, Menara 2, Jalan P5/6, Presint 5
62200 Putrajaya Malaysia

www.moe.gov.my