N A T I O N A L
HIGHER EDUCATION
ACTION PLAN
2007-2010

**NATIONAL HIGHER EDUCATION
ACTION PLAN 2007-2010**

Triggering Higher Education Transformation
AUGUST 27, 2007

C O N T E N T S

MESSAGE FROM THE PRIME MINISTER

As a developing country competing in the 21st century, Malaysia is faced with many challenges. Nevertheless, we remain steadfast in our resolve to become a developed nation that is both competitive and resilient. To this end, the National Mission was prepared outlining the necessary steps to overcome such challenges and enabling the achievement of our development objectives as outlined in Vision 2020.

To realise our national aspirations, a concerted effort is needed to increase our nation's competitiveness, productivity and innovativeness. Attributes such as desire for knowledge, innovative thinking, creativity and competitiveness must be imbued within our people. The inculcation of moral values, progressiveness and performance-based cultures must also be instilled if we are to nurture successful individuals of the highest quality. This will determine our success as a knowledge-based economy. Given this, the National Mission and Ninth Malaysia Plan have stipulated the development of first-class human capital as one of the five national development thrusts.

The success of our human capital development agenda rests in large part on the quality of the national education system. Therefore, the Government aims to spearhead an effort to transform the national education system at all levels, from pre-school through higher education.

I wish to congratulate the Ministry of Higher Education for successfully translating this grand vision for improving the country's education system into an actionable plan. The National Higher Education Strategic Plan outlines seven strategic thrusts that form the basis of national higher education development through 2020. In addition to this, an Action Plan that is comprehensive yet specific in its approach and targets has also been produced. I am confident that this approach will bring wide-reaching benefits to the nation and in doing so, lift our higher education system to new heights.

Indeed, the Ministry has a major role to play in ensuring the success of this transformation and the development of quality human capital. Nevertheless, this is a shared responsibility in which each and every one of us has a role to play. I believe this Plan can be used as a detailed guideline for all stakeholders to follow and thus contribute towards this common goal. Therefore, it is my hope that all parties will commit themselves fully to realising the national education agenda.

Let us work together to create first-class human capital and develop a nation of excellence, glory and distinction.

YAB DATO' SERI ABDULLAH BIN HAJI AHMAD BADAWI

MESSAGE FROM THE MINISTER OF HIGHER EDUCATION

All thanks to Allah SWT for permitting us to complete and launch the National Higher Education Action Plan 2007-2010.

I wish also to thank the Prime Minister, YAB Dato' Seri Abdullah Bin Haji Ahmad Badawi, for agreeing to launch this document.

A strong foundation in higher education is essential if we are to achieve our National Mission, as laid out by the Prime Minister. This is particularly so, as institutions of higher learning play a central role in generating the necessary human capital with first-class mentality needed to transform Malaysia into a developed nation. Indeed, this Action Plan gives emphasis to the development of intellectual capital of the highest quality, in order to accelerate our progress in this direction. We must bear in mind that in this increasingly global era, Malaysia will be faced with many new challenges and our *rakyat* must be well equipped to face and overcome them.

Therefore, it is the Ministry's intention to bring Malaysian Higher Education to the next level by strengthening five key institutional pillars, namely: governance, leadership, academia, teaching and learning, and research and development.

The journey towards complete transformation will take time, but we can achieve significant milestones in the near term, which will help ensure that our long-term goals are met. We must therefore act with urgency. In order to trigger this process, we will focus on five critical agendas which will act as catalysts of change.

I urge all stakeholders of Malaysian Higher Education to stand together and push forward the agenda laid out in this Action Plan, in the best interests of our beloved country.

Wassalam.

DATO' MUSTAPA MOHAMED

MESSAGE FROM THE SECRETARY-GENERAL MINISTRY OF HIGHER EDUCATION

The National Higher Education Action Plan is a stepping stone towards promoting long-term objectives of human capital development, contained in the National Higher Education Strategic Plan. The ultimate aim of which is to empower Malaysian higher education, in order to meet the nation's developmental needs and to build its stature both at home and internationally.

To fulfil the needs of the workforce and prepare Malaysians to face global challenges, this Action Plan takes heed of higher education trends which emphasise quality, competitiveness, creativity and innovation. In order to achieve this, we will require a transformation in higher education which stresses human capital development as a key enabling factor in our pursuit for prosperity and a sustainable national economy.

Both Strategic and Action Plans were put together based on consultation with a broad range of stakeholders from academia and leaders of public and private institutions of higher learning, industry and civil society. As we now enter the implementation phase, efforts must be consolidated through smart partnerships to spearhead the deployment of this Plan. For its part, the Ministry of Higher Education and its agencies are fully committed to this task.

It is hoped that the Ministry's Strategic Plan will meet its goals of strengthening the teaching and learning culture of every level of society, leading to human capital of the highest quality, possessing excellent knowledge, skills, creativity, innovativeness and competitiveness, as well as having high moral and ethical values.

A huge vote of thanks must indeed be given to all parties who were involved in the drafting of this document. It is now time for us to put words into action.

DATUK DR. ZULKIFLI BIN A HASSAN

GENESIS OF THE ACTION PLAN

The Ministry of Higher Education (MOHE) has to date produced three major reports on higher education. They are:

- The Report by the Committee to Study, Review and Make Recommendations Concerning the Development and Direction of Higher Education in Malaysia (Halatuju Report), July 2005.
- The Transformation of Higher Education Document, January 2007.
- The National Higher Education Strategic Plan, August 2007.

The Halatuju Report was presented to the Cabinet, and copies of the report were made available to all Members of Parliament.

Based on the Cabinet's input, the MOHE formed a committee to incorporate the relevant elements of the Ninth Malaysia Plan (9MP) and the recommendations from the Halatuju Report, and issued the Transformation of Higher Education Document in January 2007.

Subsequently, a working group was formed to develop the MOHE's long-term strategic plan based on the preceding two Reports and further consultation with key stakeholder groups. The group submitted its report, which provides the basis for this Action Plan, in June 2007.

The National Higher Education Strategic Plan outlines the key thrusts in four distinct phases:

- **Phase 1:** Laying the Foundation (2007-2010)
- **Phase 2:** Strengthening and Enhancement (2011-2015)
- **Phase 3:** Excellence (2016-2020)
- **Phase 4:** Glory and Sustainability (beyond 2020)

This Action Plan encapsulates Phase 1 which lays the foundation and establishes prerequisite actions to be undertaken within the 9MP period. These actions will prepare the ground for systemic changes necessary to the fulfilment of long-term plans for higher education as envisioned and conceptualised in the three reports on higher education.

INTRODUCTION

Malaysia urgently requires a transformation in higher education. These changes will require the successful translation of long-range strategic plans into closely coordinated actions. The future economic, social, and spiritual well-being of our nation depends critically on the success of this transformation.

The economic repercussions of failure cannot be underestimated. In our region alone, South Korea, Singapore, and China continue to make great strides in reinventing their leading institutions and higher education systems in general.

Malaysia cannot afford to lag behind. Developmentally, Malaysia has decided that it can no longer rely on foreign direct investments (FDI) in low-cost labour-intensive industries for its future economic growth. To remain competitive in these changing market conditions, we must generate high value-add capabilities to raise our position in the global value chain. This will enable us to not only attract higher value-add knowledge-intensive investments, but also to export our own product and service innovations to other markets.

The importance of higher education in this process must not be underestimated—it is today considered by both developed and developing nations to be a critical agenda in the formulation of national policies. The success of these endeavours is immediately obvious.

Highly-skilled IT and software engineering graduates, for example, have become the cornerstone of new industries like offshoring and business process outsourcing that bring in billions in revenues per year. Wealth will continue to be created in countries that can develop and attract human capital that is able to generate new knowledge and commercialise it to meet the world's needs. Malaysia seeks to achieve similar success in selected emerging fields like biotechnology, life sciences, nanotechnology and space sciences. In due time, Malaysian researchers are expected to be at the forefront of new technologies and contribute towards the country's socioeconomic progress.

This transformation plan aims squarely on holistic human capital (modal insan) development, to produce Malaysians who are intellectually active, creative and innovative, ethically and morally upright, adaptable and capable of critical thinking. The model human capital would also need to be well-rounded individuals with an appreciation for humanistic pursuits such as the arts, culture, sports and volunteerism. This process will create the environment necessary for the development of an individual to find and fully achieve his or her personal potential.

For this task, we must look to the key producers of human capital and enablers of systemic social change. However tertiary education in Malaysia includes skills training, vocational training, matriculation and university education that fall within the domains of various ministries and government agencies.

For the purpose of active transformation, the scope of this Action Plan will only cover institutions and agencies that are directly under the jurisdiction of the MOHE. To improve the transformation results and overall output of the higher education system, active engagement and collaboration will be undertaken with other ministries and government agencies.

The MOHE has set as its mission the creation of a higher education environment that will foster the development of academic and institutional excellence. This broad policy objective applies to both public and private institutions under the MOHE's jurisdiction. However, the majority of the activities of this transformation will be undertaken in the public institutions since the Ministry is directly responsible for the operations and performance of these institutions. Private institutions will continue to be guided by the MOHE's policy guidelines and objectives, and will be involved in certain transformation initiatives such as rating, academic performance audit and leadership training.

In summary, Malaysia has been distinctly successful in the democratisation and massification of higher education; ensuring broad access to higher education has made us a world success in equitable development. In order to meet the demands of new global challenges, however, we must ensure that quality remains an integral focus of higher education.

Human capital development is the principal focus of this Action Plan.

Important system-wide changes must be made to re-energise Malaysian higher education.

WHAT THIS ACTION PLAN ADDRESSES

Based on extensive discussions, and consultations conducted with all stakeholders, a clear consensus has emerged indicating that important systemic changes must be made to re-energise national higher education.

It is within this context that the Ministry completed its National Higher Education Strategic Plan. This document articulates the MOHE's vision for the transformation of higher education in Malaysia from now to 2020 and beyond. It is designed to be broad and comprehensive in its coverage of higher education with high-level plans encompassing both new initiatives as well as existing programmes. In this report, the Ministry has outlined its focus on seven strategic thrusts:

1. Widening Access and Enhancing Equity
2. Improving the Quality of Teaching and Learning
3. Enhancing Research and Innovation
4. Strengthening Institutions of Higher Education
5. Intensifying Internationalisation
6. Enculturation of Lifelong Learning
7. Reinforcing the Higher Education Ministry's Delivery System

For execution under the 9MP, the Ministry has also produced this Higher Education Action Plan to provide the appropriate focus on the new initiatives as well as to highlight our key emphasis on enhancing quality in higher education.

This Action Plan details critical implementation mechanisms and schedules. While some outcomes can be expected immediately, others will necessarily require gestation periods beyond three years.

This is the first in a series of shorter-term action plans for each phase of higher education transformation. The MOHE will conduct a mid-term review to ensure that execution of the Action Plan remains focused and effective. This will also guide the MOHE in the formulation of the next Action Plan for the 10th Malaysia Plan.

Strategic Fit

This Transformation Plan takes its cue from two major national development plans and two speeches by Prime Minister YAB Dato' Seri Abdullah Bin Haji Ahmad Badawi.

In Vision 2020, the sixth challenge is to establish a scientific and progressive society, a society that is innovative and forward-looking—one that is not only a consumer of technology but also a contributor to the scientific and technological progress of our future.

The 9MP's five strategic focuses echo the importance of the Prime Minister's concern for human capital development. The National Mission identifies five critical areas for promoting national progress and prosperity, namely:

1. Moving the economy up the value chain
2. Raising the capacity for knowledge and innovation to nurture a first-class mentality
3. Addressing persistent socioeconomic inequalities constructively and productively
4. Improving Malaysians' quality of life and ensuring its sustainability
5. Strengthening institutional and implementation capacities

The Prime Minister has also reminded Malaysians of the need "to develop the necessary first-class human capital, so that the country can be intellectually self-sufficient and be able to engage as equals the world over, especially in advancing new theories and solutions."[1]

The Prime Minister develops this vision further in a notable speech on Malaysia 50 years from now:

"A hundred years of Merdeka will see this society, this nation, achieve the unimaginable. We will have Nobel Laureates, truly global corporations, respected and market leading brands, internationally-acclaimed poets and artists, among the largest number of scientific patents in the world. Our students and professors will dominate Ivy League universities and our own universities will be citadels of excellence for international scholars."

For all these reasons and more, the MOHE intends to strengthen the foundation of our higher education institutions (HEIs) and take the necessary steps to enhance the overall capability of our higher education system to produce human capital with first-class mentality.

This will not only require the active participation of all stakeholders within the higher education sector, but also ensure continuity within the nation's education pipeline. As such, the MOHE and the Ministry of Education (MOE) will establish joint committees to align initiatives contained in MOHE's Action Plan and MOE's Education Blueprint.

THE STATE OF HIGHER EDUCATION IN MALAYSIA

In essence, Malaysia has been successful in its efforts in democratising higher education and in producing sufficient graduates to meet its manpower requirements during its phenomenal economic growth over the last three decades.

As an example of this feat, the higher education capacity in Malaysia has grown from the formation of the country's first university, Universiti Malaya in 1961, to the 2007 enrolment of 942,200[2] students in 20 public universities, 32 private universities and university colleges, four branch campuses of international universities, 21 polytechnics, 37 public community colleges, and 485 private colleges.

The Government has also shown commitment to higher education by establishing the National Higher Education Fund Corporation (PTPTN) to provide low-cost educational loans to students in diploma and first-degree level programmes at public and private HEIs. Since its inception in 1997 to 2006, PTPTN has enabled 896,500 students to pursue their studies in approved HEIs.

All qualified students today have access to tertiary education. But the next—and greater—challenge is to provide them with "world-class" education.

Unemployment among new graduates is a phenomenon that can be found in many countries and it could be caused by several factors such as the slowing rate of economic growth, unexpected shifts in demand from one industry to another, and mismatches between market requirements and the graduates that HEIs produce. Even though it is inaccurate to apportion complete blame on HEIs, this matter is examined at length by this Plan.

To improve employability aspects amongst our graduates, a greater role is being asked of our HEIs. Emphasis has been placed on the often-cited lack of language fluency and critical thinking on the part of graduates across the board.

For professional courses such as medicine, law, accountancy and engineering, efforts like international benchmarking and tighter collaboration with industry and relevant professional bodies are being planned. For general courses mainly in the arts and humanities, programmes like vocational/career training after graduation will be introduced subject to student interest and available resources.

We are also steadily establishing our reputation as an international hub for education. By attracting students from all over the world, we have purposely invited a diversity of perspectives, culture and knowledge into our HEIs.

Furthermore, human capital development does not only happen exclusively in our universities and university colleges. Our community colleges, polytechnics and private colleges develop crucial skills needed urgently in the workplace.

Special efforts are also under way to promote lifelong learning in Malaysia through our open universities and community colleges. In February 2007, the community colleges were re-branded as lifelong learning hubs and new work-based learning approaches for diploma-level programmes were developed through close collaboration with industry.

"Development of quality human capital will be intensified. The approach must be holistic and emphasise the development of knowledge, skills, intellectual capital in fields such as science, technology and entrepreneurship."

YAB Dato' Seri
Abdullah Bin Haji
Ahmad Badawi

TRANSFORMATION OBJECTIVES AND APPROACH

The purpose of education is the holistic development of character and capabilities, the acquisition of specific skills, the realisation of intellectual, physical and spiritual potential, and the training of human capital.

During the tabling of the Ninth Malaysia Plan in March 2006, The Prime Minister asserts:

"Development of quality human capital will be intensified. The approach must be holistic and emphasise the development of knowledge, skills, intellectual capital in fields such as science, technology and entrepreneurship. Simultaneously, we must develop a culture that is progressive, coupled with high moral and ethical values. This is what is meant by human capital with First-Class Mentality."

Based on this, the MOHE has produced a profile of the desired human capital based on three principles: knowledge, personal, and interpersonal attributes. The model of desired human capital is presented below:

Attributes of Human Capital with First-Class Mentality*		
Knowledge Attributes:	**Personal Attributes:**	**Interpersonal Attributes:**
• Mastery of core subjects and ability to apply that knowledge	• Goal-oriented: proactive, self-starting, self-disciplined, confident, resilient, motivated, and fiercely competitive.	• Able communicator and effective presenter.
• Mastery of Bahasa Malaysia and English, and at least one other global language.	• Intellectually engaging: creative, innovative, and possessing critical thinking skills.	• Able to relate and be comfortable with people at all levels.
• A continuing passion for knowledge through lifelong learning.	• Quick learner, adaptable, and flexible.	• Able to develop and leverage on personal and professional networks to achieve goals.
• Excellent general knowledge and interest in current events.	• Entrepreneurial.	• Natural leader.
• Appreciation of the arts, culture and sports.	• Ethically and morally upright.	• Team player.
• Sound analytical and problem-solving skills.	• Spiritually grounded.	
• Awareness of business and management principles, and technology.	• Compassionate and caring (through volunteerism and social services).	

* Base attributes. To be customised based on level of study and institutional charter.

It is recognised that not all graduates will be able to demonstrate excellence across all attributes upon graduation. Nevertheless, HEIs must seek to ready their teaching resources, revamp programmes and systems, and re-engineer learning processes to instil these attributes in all students.

To make it a more pragmatic exercise, HEIs are allowed to place higher emphasis on certain attributes depending on each institution's mission, charter and the student's level of study. HEIs must aid the individual in building a foundation strong enough to enable each student to acquire or enhance these attributes throughout life.

Human capital thus defined cannot rise from a vacuum. The Prime Minister's call for an educational revolution requires a radical transformation to bring about the desired change. Only through such processes can we seek to rejuvenate higher education in order that it, in turn, can help individuals manifest the attributes detailed earlier.

All of us know excellent HEIs when we see them. They are crammed with thought leaders, crackle with creativity and their scholars are in demand the world over. They are avidly courted and closely consulted by political leaders, captains of industry and the world's intelligentsia.

These are the kinds of universities and colleges Malaysia can and must have. The production of human capital is the singular rationale for the existence of all HEIs. All other considerations are subordinate to this imperative. Nations rise and fall on the quality of their human resources and the institutions that produce them.

In order to achieve the objectives set out, the right incentives, legislation, policies and governance framework must be put in place.

The levelling-up approach

The levelling-up approach provides strategic value for the attainment of the National Mission—in particular, to produce the desired human capital.

The potential conflict of interest between two contentious perspectives must be recognised. Firstly, the need to provide access to higher education to socioeconomically disadvantaged groups must be met. Secondly, it is imperative that the country develops its best in a competitive environment to forge ahead and become internationally competitive. The levelling-up approach asserts that the nation can achieve both without compromising on either objective.

In addressing this, the Halatuju Report recommended that:

"The best formula for this country is, in fact, a 'levelling-up' approach which would be consistent with the balanced and dynamic approach we advocate to achieve progress. The Committee is of the opinion that this levelling-up strategy will benefit disadvantaged groups and simultaneously provide opportunities for all Malaysians to be involved in the pursuit of progress and excellence.

"Levelling-up, with its twin goals of achieving excellence and catering to the disadvantaged, is precisely what this committee advocates in bringing about the democratisation of education."

This model does not discriminate as it provides for every Malaysian, regardless of academic ability. It does not impede the progress of high-achievers. On the contrary, it provides them more avenues to actualise their academic and intellectual potential. It also recognises the needs of the less academically inclined.

A number of strategies will be adopted. The institutional strategy will address the core pillars of HEIs while the 'critical agenda' will radically reinvigorate Malaysian higher education so as to provide a solid foundation for the future.

STRATEGIES
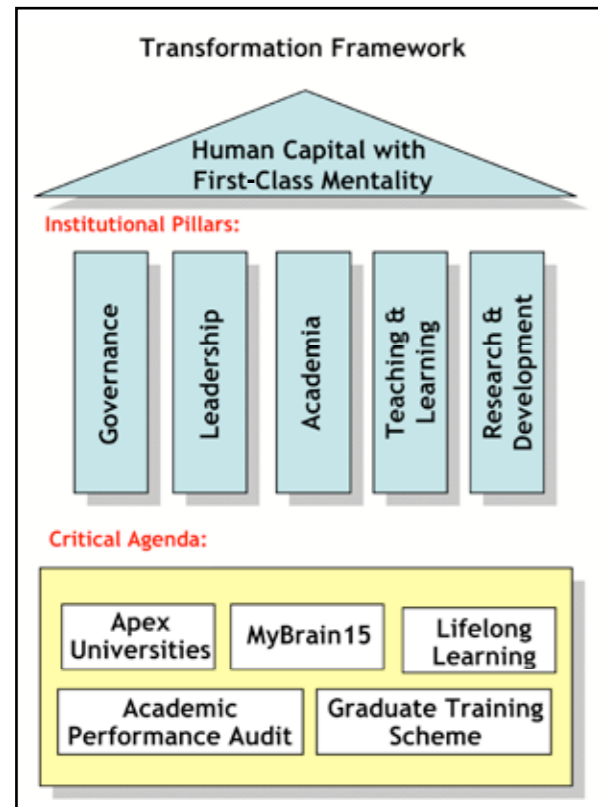
Institutional Pillars: Strengthening the Institutions

The set of 'institutional pillars' detailed in Part A of this Plan represents initiatives by the MOHE to assist all HEIs, especially the new and less developed ones. This section focuses on five essential pillars necessary for strong higher education institutions.

Governance, leadership, academia, teaching and learning, and research and development are the key areas. These must be addressed if we are to ensure that the foundation for a rejuvenated higher education system remains solid in the years to come.

Critical Agenda: Catalysing Systemic Change

In tandem with these pillars, levelling-up also involves a 'critical-agenda' approach designed to address transformation of the higher education system.

It seeks to achieve the competitive edge Malaysia needs to run with the best. It also assists students facing difficulties in finding employment to receive subsidised vocational/career training after graduation, and to benefit from active industry participation in higher education through industry specific internships and corporate-HEI collaborations.

The transformation plan is founded on five institutional pillars and five critical agenda programmes.

How and when these will be implemented

The Ministry's long-term Strategic Plan encompasses four phases. The first three phases until 2020 are grounded in 'end-state' objectives, thrusts and strategies. The fourth phase, beyond 2020, is more aspirational in nature and will be based on the accomplishments of the first three phases and new challenges circa 2020.

This Action Plan is the principal initiative in the development of the nation's higher education within the 9MP period. The MOHE will utilise best practices of project and programme management in order to ensure successful execution of all transformation activities, and to monitor the Plan's roll-out.

While some outcomes can be expected immediately, others will necessarily require gestation periods beyond three years.

The MOHE will conduct a mid-term review to ensure that the execution of the Plan remains focused and effective. This will also guide MOHE in the formulation of the next Action Plan for the 10th Malaysia Plan.

Transformation Roadmap

Target outcomes in each Phase contribute to the success of the next, culminating in the achievements highlighted in Phase 4 which were outlined in the Prime Minister's aspiration for Malaysia in the year 2057.

PART A – INSTITUTIONAL PILLARS: STRENGTHENING THE INSTITUTIONS

Governance

Imperatives

Within the sphere of the Ministry's control, there are 20 full-fledged public universities, 21 polytechnics and 37 community colleges in Malaysia today. The public universities can be further divided into four research, four comprehensive and twelve focused universities.

Additionally, there are 32 private universities and university colleges, four branch campuses of international universities and 485 colleges offering a range of academic and vocational courses under the Ministry's supervision.

The scope of the governance pillar applies only to the public HEIs and mainly to public universities. Private HEIs are independently operated and subject to minimal intervention from the Ministry. Nevertheless, they are encouraged to draw from the same principles of good governance outlined in this Action Plan to help them attain similar levels of performance.

Currently, public HEIs receive as much as 90 per cent of their funding from Government sources, with the remainder derived from student fees. In 2007, the Government is expected to spend more than RM6 billion to fund public HEIs' operating budget. This figure is likely to increase with new HEIs and the recent upgrading of four institutions into research universities.

Being owned and funded by the Government, public HEIs must ensure that their strategic objectives are in line with those of the Ministry's. The MOHE intends that these HEIs become more dynamic, competitive, and able to face the challenges of a changing world. Among the characteristics of top HEIs is the ability to attract and retain the best academics who are able to contribute significantly to advances in research. They must also produce graduates who can acquire and apply their knowledge in the context of contemporary society.

The Government recognises that a greater level of autonomy and accountability is needed for HEIs to pursue these objectives.

With regard to university management reforms, the Government has implemented the legal framework to transfer administrative powers to universities. In the Universities and University Colleges Act (Amended 1996), the University Council was replaced by the respective university's Board of Directors (BOD). However, the amendments have not as yet fulfilled their intended purposes.

The current practice of centralised administration is neither practical nor strategic. The BOD continues to function as a university council and has neither the status nor authority to act as a true corporate board. Further legislative amendments may be necessary to properly redefine the roles of the BOD.

The boards of universities will be subject to the same principles of good governance that regulate corporate enterprise. As an example, certain practices could be adopted from The Green Book: Enhancing Board Effectiveness issued by the Putrajaya Committee on GLC High Performance (PCG) in its efforts to transform Government-Linked Companies (GLCs).

The three main components in the book are highly applicable to the university BOD:

- Structuring a high-performing board

- Ensuring effective board operations and interactions

- Fulfilling fundamental board roles and responsibilities

The transformed university BOD should be active, together with the university management, in setting the strategic direction, managing the institutional performance and risk, developing the leadership pool, and in the succession, termination and hiring processes of university leaders.

With the reformed governance structure, autonomy in selected areas will now devolve in phases from the Ministry to the various HEIs. During the transitional period, the Ministry will monitor all HEIs with a view to assisting them in their mission to take charge of their own destinies.

Desired Outcomes

- Clear definitions of parameters of responsibility for BOD, Vice-Chancellors and Senates must be designed. These parameters will act as checks and balances, and must be adhered to with integrity.

- Accountability of the BOD will be enhanced through the adoption of the MOHE strategic plan framework. This will also ensure that the evolution of HEIs remains in line with national objectives.

- With increased self-governance, public HEIs, through their boards' supervision, must assume greater responsibility for leadership, performance and funding.

Action Plan

Action	Lead Agency	Deliverable	Timeline
▪ Review of authority levels for all HEI processes requiring MOHE approval. ▪ Review of existing governance structure, roles and responsibilities. ▪ Assessment of current Board effectiveness.	▪ MOHE ▪ Governance Taskforce ▪ Governance Taskforce	▪ Authority Levels Report ▪ Situation Report ▪ Assessment Report	▪ 2008:Q1 ▪ 2008:Q1 ▪ 2008:Q1
▪ Amendments to the UUCA to clarify the new roles of the BOD, Vice-Chancellor and Senate to increase self-governance.	▪ MOHE ▪ Governance Taskforce	▪ UUCA amendment	▪ 2008:Q3
▪ Roll out new empowerment framework for governance and management of HEIs.	▪ MOHE ▪ Governance Taskforce	▪ Governance Book	▪ 2008:Q3
▪ Devolution of autonomy in selected areas in stages to the BOD. This move is a precursor to increased autonomy for select institutions.	▪ MOHE	▪ Governance policies	▪ 2008-2010
▪ A system of performance-based competitive funding will be implemented at all public HEIs. ▪ HEIs assume greater responsibility for sourcing and pursuing alternative funding routes which may include gifts, endowments, consulting, and commercialisation of research.	▪ MOHE ▪ HEI	▪ Funding policy ▪ Funding policy	▪ 2009-2010 ▪ 2009-2010

The transformed university Board will be active, together with management, in setting the strategic direction, managing the institutional performance, and developing the leadership pool.

Leadership

Imperatives

To achieve the higher education transformation envisioned by the Government, leadership roles at HEIs have become even more pivotal.

In conceptualising the leadership pillar, the MOHE considers the following as crucial:

1. Identifying and defining the required leadership roles at HEIs

2. Institutionalising the right processes in the areas of selection, development, evaluation, and renewal

3. Developing a pipeline of talents (grooming and succession planning)

The administrative roles of the BOD, Senates, and Vice-Chancellors must be clearly defined in the implementation of the governance pillar. Beyond that, to achieve the desired transformation, outstanding educational leaders must emerge and the key leadership roles will be entrusted to Vice-Chancellors or Rectors.

In realising this transformation plan, these leaders must fully understand their institutions' roles, craft their institutions' visions and missions, and rally their constituencies to meet and even exceed expectations.

At the operating level, HEI leaders must recognise the shifting importance of core businesses and support functions. In top-tier universities in particular, functions like R&D commercialisation and fundraising must, for example, be given renewed focus as they may create viable opportunities for substantial non-governmental funding. The success of this endeavour lies in identifying the critical functions required, and enlisting and developing key personnel at various levels who will become agents of change.

The long-term sustainability of this transformation path depends on the institutionalisation of the key leadership processes: selection, development, evaluation and renewal.

The selection process must ensure that Vice-Chancellors are drawn from the highest ranks of professionals. They must be fiercely competitive and must focus principally on achieving strategic objectives.

They must possess the credentials and track records of proven leadership, and they must earn and command the respect of their key stakeholders.

The position of Vice-Chancellor will not necessarily be subject to internal promotion. It is an open post, which will ensure that the best candidate is chosen for the job. In consonance with this policy, a panel of independent interviewers will select and recommend candidates for these positions whenever the term of a Vice-Chancellor approaches completion. It is envisioned that this practice will evolve into a selection process by way of public advertisement.

The BOD, along with the MOHE, will play a more active role in drawing up as well as monitoring appropriate Key Performance Indicators (KPIs) for the Vice-Chancellors and senior management of universities.

The BOD selection process at public HEIs must also be streamlined with the new requirements of the governance pillar. With increased autonomy and expectations, a BOD must fulfil its dual role of promoting the HEI's objectives while safeguarding the Government's interest. The right level of representation from the industry will also help inject fresh perspectives and assist in funding and collaboration activities.

The leadership development process will be critical in identifying gaps, supporting the transformation journey by providing the necessary training and highlighting best-practices from renowned institutions. Specific programmes will be designed to help public and private HEI leaders address their specific issues which may include board effectiveness, alignment of strategic plans, revenue management, R&D commercialisation, and culture change. The new Higher Education Leadership Academy (AKePT) will be set up at the end of 2007 for these purposes.

An objective evaluation process must be developed to ensure accountability on transformational progress. KPIs must be based on transformation objectives, taking social cohesion, unity and long-term sustainability into consideration.

In the context of the levelling-up approach, all leaders are tasked with driving their institutions towards quality. The challenges, however, are not equal for all. Some, institutions are required to achieve 'world-class' status, while others are tasked with massification and the enhancement of quality access to tertiary education.

If leaders fail to achieve predetermined targets, they need to be prepared to make way for a renewal process to happen. It matters not if they were asked to do more than their peers, their institutions will still need to complete their transformational journey.

The overall leadership process can only be executed smoothly if proper succession planning is conducted. Future leaders must be identified early and introduced to AKePT's leadership development programme. Proven leaders will enter a leadership channel, and, should the need arise, will undertake greater challenges at other HEIs.

Desired Outcomes

- Only the best possible candidates for HEI leaders will be appointed. The successful candidate must have a thorough understanding and appreciation of national aspirations.

- The performance of HEI leaders must be assessed continuously, and in reference to the institutions they lead, to ensure that the highest standards are maintained. All HEI leaders must also have their track records benchmarked against international standards.

- Current and future HEI leaders must have access to further professional development in the area of leadership building.

Action Plan

Action	Lead Agency	Deliverable	Timeline
• Develop new three-year HEI strategic plans that are synchronised with the Ministry's transformation objectives.	• Public HEI	• Strategic Plans	• 2008:Q1
• Identify areas critical to the success of HEI.	• Public HEI	• Critical success areas	• 2008:Q1
• A committee will be established to recommend candidates for Vice-Chancellors. This committee will include eminent scholars and corporate leaders.	• MOHE	• Committee appointments	• 2008:Q1
• The Higher Education Leadership Academy (AKePT) will provide structured programmes in leadership building through collaborations with leading local and international institutions. BOD, Vice-Chancellors and senior executives will attend programmes tailored for each group.	• AKePT	• Leadership programmes	• 2008:Q1
• Programmes will also be developed to assist the development of middle-management staff (Deans and Heads of Departments) in preparation for senior leadership positions.	• HEI • AKePT	• Succession Development Plan	• 2008:Q1

Academia

Imperatives

The academic staff determine the excellence of any HEI. These academics are the moulds that will shape our students. To produce first-class human capital, some of these moulds need to be re-shaped. Each HEI must therefore create an environment that fosters a culture of excellence to attract the most able and motivate existing staff. They must also seek ways to enrich the local academic environment by encouraging close industry and international contacts through exchange programmes at all levels.

The main imperatives identified for building the right culture include:

1. Uplifting the profession

2. Providing professional development and training opportunities

3. Celebrating achievements with awards and recognition

In 2006, there were more than 20,000 lecturers in public HEIs and, overall, about 25 per cent held Ph.D. or equivalent qualifications. The Government's target is to raise this to 60 per cent by 2010. These efforts are mainly covered in the R&D Pillar and MyBrain15 programme. Besides that, several initiatives have been identified to uplift the profession such as tenureship and to set more stringent criteria for professorships.

Greater collaboration between HEIs and leading local and multinational corporations, and top international institutions will be forged to build staff development programmes. These programmes will be designed to benefit academic staff from both private and public HEIs and may take several forms such as training, joint research, attachments and staff exchange programmes.

Greater collaboration between HEIs and leading local and multinational corporations, and top international institutions will be forged to build staff development programmes.

Besides deepening their core expertise, culture change and leadership programmes must be institutionalised to ensure sustained improvements. For outstanding achievements, several awards and recognition programmes have been identified. Other incentive programmes must be introduced at the local and national levels in all areas targeted for improvement.

The wealth of knowledge possessed by retired academic staff will be utilised fully. These individuals can also provide invaluable assistance in the development of younger teaching staff.

Career progression and promotions will hinge on continued demonstration of passion for teaching, research, as well as the advanced qualities and attributes of first-class human capital listed earlier.

Professional development programmes will also be designed for non-academic personnel to improve HEI administration and support for academicians.

Desired Outcomes

- To instil a greater professional culture among academic staff at public HEIs. Due recognition, value and reward in the form of career advancement opportunities are given to the best performers.

- Opportunities for personal development for academic staff are provided as part of the national higher education policy.

- Malaysian academics publish regularly in recognised/ agreed upon international high-impact and refereed journals.

- Malaysia is respected internationally as an education hub through the increased prominence of its academic research and teaching.

Action Plan

Action	Lead Agency	Deliverable	Timeline
Formulation of policies and human resource development plans for academic staff of HEIs.	MOHE	Academic HR development plan and policies	2008:Q1
Professionalisation:			
Review of academic remuneration scheme and its impact on progress towards transformation.	MOHE	Assessment report	2008-2010
Tenureship system for the appointment of senior academic staff at public universities.	MOHE	Tenureship guidelines	2008:Q2
Professors appointed strictly on the basis of academic excellence. Key criteria include: Publications in high-impact and international journals, citations and references, and published research in collaboration with international peers.	MOHE	Professorship guidelines	2008:Q2
Establish a separate teaching service scheme for teaching staff (DG) attached to the Ministry. The scheme will include lecturers from polytechnics and community colleges, many of whom are engineers.	MOHE	Teaching Scheme for Professionals	2008:Q2
Development & Training:			
Academic training schemes for HEIs and a federal training award scheme for polytechnic and community college lecturers to help academics pursue master's and doctoral degrees.	MOHE	60% Ph.D.	2010
'Train the Trainers' Management and leadership programmes conducted by AKePT in collaboration with top international institutions.	AKePT	500 participants	2008
Management and leadership programmes conducted by HEI Trainers.	HEI	20,000 participants	2009-2010
Programmes to enable the secondment of academics to private sector organisations, and vice versa. This will increase cross-sectoral collaboration.	MOHE / HEI	Policy / Active participation	2007:Q4 / 2008-2010
Greater collaboration between private and public HEIs to build staff development programmes.	MOHE / HEI / MOHR	Low-cost development programmes	2009
Facilitate the continued scholarship of emeritus professors, including their contributions as mentors to younger teaching staff.	HEI	Active mentoring programmes	2008
Academic staff must be allowed greater mobility especially with regard to inter-university collaboration.	MOHE	Mobility guidelines	2008:Q1
Professional development programmes for non-academic staff.	HEI	Development programmes	2008:Q4
Awards & Recognition			
Institutional and national awards to recognise the best achievements of lecturers in HEIs in various fields. Awards are currently given to those working in the fields of education, research, publishing, creative arts, and academic leadership.	MOHE / HEI	Respected merit-based awards programme	Ongoing
HEI Fellowships awarded to lecturers of distinction in the areas of teaching and learning.	HEI	Fellowship awards	Ongoing

Teaching and Learning

Imperatives

We must produce confident students with a sense of balance and proportion. While an individual may specialise in a certain area, his or her perspective should be enriched by other experiences as well.

The MOHE will thus introduce a holistic programme that will cut across all disciplines and focus on communication and entrepreneurial skills. The programme, which is intended to build a balanced perspective in all students, will expose them to subjects beyond their area of specialisation. For example, students reading for degrees in the sciences such as medicine, engineering and chemistry will be exposed to courses covering literature and philosophy. Likewise, students in the humanities will be exposed to the rudiments of science and technology, and certainly, ICT.

To foster greater national unity, courses focusing on inter-cultural understanding and diversity will be encouraged for all students. However, the mode of presentation shall utilise an affective rather than a cognitive approach---teaching and learning of the subject will be conducted by way of team discussion and participation. In addition, students will participate in compulsory co-curriculum activities such as community services and sports to foster the development of leadership, teamwork and other personal and inter-personal qualities.

Dynamic and relevant curriculum and pedagogy are needed to ensure the health and strength of an institution. Inter-disciplinary approaches to the design of higher education curricula will build and stimulate creativity, innovation, leadership and entrepreneurship. Curricula must also equip undergraduates with appropriate skills to enable them to compete in an ever-changing market. Curricula must be reviewed, and courses that are no longer relevant must be removed. Peer review and industry collaboration must be enhanced in curricula development and evaluation.

Internationalisation of higher education also means ensuring we maintain benchmarks with leading institutions the world over. Through formal partnerships with renowned faculties and institutions, we stand to effect knowledge transfer into the country.

While the curriculum is important, its delivery is equally critical. HEI academic staff are today expected to be leaders in the field of teaching. While reformed administrative procedures and excellent curricula will aid HEIs in achieving their true potential, teaching staff form the frontline of this transformation and must focus on innovative delivery of curricula. Adoption of innovative modes such as active learning or problem-based learning will be encouraged where appropriate to promote the development of communication, problem-solving, and self-directed learning skills.

Evaluation is an important aspect of pedagogy, the skills of which must be acquired by all academic staff. Good teaching must be followed by good evaluation. The aim of evaluation is to obtain information regarding the level of mastery of a subject that the student has learned and grasped.

A policy will be formulated to encourage the acquisition and demonstration of teaching skills for all HEI academic staff. As a first step, the MOHE will draw up in-service programmes for university lecturers and professors to undergo enrichment programmes in the science and methodology of pedagogy.

To ensure multilingualism, a third language curriculum requirement is being instituted in stages. Among the global languages students can choose from are Mandarin, Arabic and French. The use of English in teaching and learning continues to be encouraged, especially in Science, Mathematics and technical subjects.

It is becoming more and more important that students develop global perspectives as they undergo tertiary education. This will be achieved through the facilitation of increased student mobility and exchange. As a start, a programme will be introduced to provide top students the opportunity of spending at least one semester in a foreign university.

In the area of ICT, the MOHE has started several certified professional training programmes with leading ICT companies. These programmes are conducted in collaboration with local and foreign HEIs and include a component for the training of lecturers. The lecturers will then incorporate the knowledge acquired into the ICT curriculum of their respective HEIs. The success of these programmes will become the foundation for the implementation of other professional programmes for other courses.

As an additional effort, a Malaysian Qualifications Framework (MQF) has been set up to benchmark the quality of higher education. MQF gives emphasis to educational outcomes. To implement the MQF, the Government will set up the Malaysian Qualifications Agency (MQA) to replace the National Accreditation Board (LAN).

Dynamic and relevant curriculum and pedagogy are needed to ensure the strength of an institution.

It is also important that students develop global perspectives as they undergo tertiary education.

The MQF will be the reference point for criteria and standards of educational courses. The MQA will also play a role in raising the overall quality of higher education in the country.

Desired Outcomes

- Critical thinking, communication skills, excellent English proficiency and enhanced IT skills must form the common foundation of all graduates regardless of their chosen disciplines. These new focuses will be incorporated into a compulsory curriculum, which runs concurrently with degree programmes at all HEIs.

- All lecturers are expected to demonstrate scholarship in their fields of specialisation, and to demonstrate professionalism and competence in their ability to teach.

Action Plan

Action	Lead Agency	Deliverable	Timeline
• Design holistic programmes: students in the pure sciences will be exposed to humanities subjects, and vice versa. Run in tandem with programmes on culture and diversity.	• T&L Taskforce	• Balanced and well-rounded education	• 2008:Q4
• Exchange programme for top students to spend one semester in select foreign universities.	• T&L Taskforce • HEI	• Student-exchange programmes.	• 2008:Q3
• Implement programmes to enlist industry leaders to play an active role in curriculum design as well as in teaching.	• T&L Taskforce • MOHE • Industry • HEI	• Latest and most relevant developments in the industry	• Ongoing
• Embed career skills development into teaching and learning of core curriculum. Career skills to include soft skills, IT awareness, and entrepreneurship.		• Critical thinking, communication skills, English proficiency and IT skills	• 2008:Q2 (Pilot)
• Form partnerships with renowned faculties and institutions to benchmark HEI courses against international standards.	• HEI • MOHE	• Partnerships • Benchmarking report	• 2008:Q2 • 2008:Q4
• Formalise peer review framework.	• T&L Taskforce	• Peer review framework	• 2008:Q4
• Introduce mechanisms to trigger curricula review when needed. Necessary changes are to be made quickly to ensure relevance.	• MOHE • HEI	• Up-to-date and relevant curricula	• Ongoing
• Provide compulsory in-service training in pedagogy for all HEI teaching staff. Teaching KPIs used in their evaluation.	• MOHE • HEI	• Sufficient programmes and active participation	• 2008-2009
• Roll out lecturer credentialing programme for all existing HEI teaching staff.	• HEI		
• Establish multi-purpose centres serving the triple objectives of pedagogical development, curriculum development and evaluation.	• HEI	• Active centres at HEI	• 2008:Q1
• Implement measures to make research into teaching methods a priority.	• HEI	• Insightful research	• 2008:Q2
• Promote innovative teacher-training methods, training and research through AKePT.	• AKePT	• Methodology and research	• Ongoing

Research and Development (R&D)

Imperatives

Success in research and development is critical in higher education for at least three reasons:

1. To produce the intellectual property and innovation required to move the country higher in the global value chain, and create new jobs and opportunities.

2. To create new knowledge and valuable new findings necessary to enable Malaysia to become a leading education hub.

3. To develop the necessary human capital to continually innovate across all sectors of the economy.

The United Nations Conference on Trade and Development's (UNCTAD) World Investment Report 2005 ranked Malaysia in the 60th place in its Innovation Capability Index ranking (based on 2001 data). This index measures two critical dimensions: Technological Activity (proxies: R&D expenditure and employment, US patents filed, scientific publications) and Human Capital (proxies: literacy rate, secondary and tertiary enrolments).

Regardless of the index's limitations and the progress made since 2001, more drastic action must be taken if Malaysia is to achieve its industrialisation objectives and accomplish the National Mission in the 9MP. These imperatives revolve around human capital, funding and a collaborative national innovation system.

There are two important aspects in the development of R&D in higher education:

1) Building the critical mass of researchers, scientists, and engineers (RSE)

2) Inculcating the right culture to ensure passion, dedication, and commitment towards research.

According to the Ministry of Science, Technology and Innovation's (MOSTI) National Survey of Research and Development 2006, Malaysia has about 21 RSE per 10,000 workers in 2003. This is well below the average of 100 RSEs in European Union countries in 2003. To build a critical mass of RSEs in Malaysia will require more than the intensification of existing training programmes such as the academic training schemes and split Ph.D. programmes. For the short term, it will also require attracting Malaysian RSEs working abroad and international talents to conduct research in the country. In the longer term, a more creative and strategic solution needs to be devised. This plan must include the Ministry of Education and MOSTI. The identification, channelling and development of top talents must be done as early as during secondary education.

Beyond merely increasing the numbers, RSE professions must also be made more attractive and held together by a vibrant research culture that celebrates accomplishments and thrives on collaboration. This will augur well for the country's desire to be at the forefront of knowledge in certain science and technological fields.

Government research funding has been boosted to 1.5 per cent of the country's GDP under the 9MP. This is more than a threefold increase in percentage terms compared with 0.49 per cent under the 8MP. However, Malaysia has a lot of ground to cover—for example, Asian countries like Singapore, Taiwan, South Korea and Japan have already been spending between 2.15 and 3.07 per cent of GDP on R&D since 2002. It is imperative that R&D grants are prudently used in strategically targeted areas without burdening researchers with unnecessary bureaucracy. Private-sector R&D spending must also be encouraged to optimise available resources and capabilities in HEIs.

To improve the R&D output, the national innovation system framework must be fully conceptualised and implemented. The links among research universities, the various HEI R&D centres, public research organisations and industry must be encouraged and facilitated to enhance the commercialisation of R&D. Tighter collaboration and networking must also be extended internationally where appropriate to ensure better outcomes and to attract foreign talent, research opportunities and funding.

Desired Outcomes

- 50 RSEs per 10,000 workforce.

- Commercialisation of at least five per cent of all R&D efforts.

- Internationally-acclaimed research universities.

- Five world renowned R&D centres of excellence.

- Well functioning, thriving and collaborative national innovation system that facilitates efficient resource allocation, targeted research efforts, flow-along R&D and commercialisation value chain and access to global partners and markets.

Under this Plan, Research Universities and R&D centres of excellence will become hubs of a well functioning, thriving and collaborative national innovation system.

Action Plan

Action	Lead Agency	Deliverable	Timeline
▪ Review of existing RSE development plans. Identify gaps in current scholarship and training programmes.	▪ RSE Taskforce (MOHE, MOE, MITI & MOSTI)	▪ Situation report	▪ 2008:Q1
▪ Develop RSE human capital development plan for HEIs including: ▸ High-level targets by sector, to 2020 ▸ Pipelines from secondary education to post-doctoral programmes ▸ Comprehensive training, loan and scholarship programmes ▸ HEI "Brain Gain" programme.	▪ RSE Taskforce	▪ RSE Human Capital Development Plan	▪ 2008:Q2
▪ Implement RSE Human Capital Development Plan for HEIs - Phase 1.	▪ MOHE ▪ HEI	▪ RSE tracks and pipelines ▪ 50 RSE per 10,000 workforce	▪ 2008:Q3 ▪ 2010
▪ Develop comprehensive plans to enhance R&D culture in HEIs including: ▸ Recognition, incentives and awards ▸ Leadership and mentoring programmes ▸ Seminars and training for R&D issues ▸ Collaboration and networking events for HEI RSEs.	▪ R&D Taskforce	▪ R&D Culture Blueprint	▪ 2008:Q1
▪ Implement culture enhancement programmes.	▪ MOHE ▪ HEI	▪ R&D culture enhancement programmes	▪ 2008-2010
▪ Review of existing major R&D programmes in HEIs and collaborations with public research organisations, and industry.	▪ MOHE Taskforce	▪ R&D Diagnostic report ▪ Profiles of major R&D centres	▪ 2008:Q2
▪ Contribute to the National Innovation System (NIS) including: ▸ High-level R&D strategic alignment ▸ Areas of collaboration for research universities, R&D centres of excellence, other HEI, public research organisations, MNCs, GLCs, and SMEs	▪ MOHE Taskforce	▪ NIS Blueprint	▪ 2008:Q3
▸ Identify potential international R&D partners. ▪ Implement NIS plan in HEI ▸ Research universities (RU) ▸ R&D centres of excellence (COE) ▸ Commercialisation of R&D.	▪ MOHE ▪ HEI	▪ MOU & MOA ▪ Internationally recognised RU and COE ▪ National R&D database and clearinghouse to promote commercialisation.	▪ 2008-2010 ▪ 2010 ▪ 2008;Q4

# PART B – CRITICAL AGENDA: CATALYSING SYSTEMIC CHANGE

Apex Universities

Imperatives

An important approach towards achieving world-class status is the establishment of one or two Apex Universities. An Apex University is a conceptual construct that in due time will stand atop the pyramid of institutions. The Apex Universities will be the nation's centres of academic distinction.

Following certain lessons from the world's top institutions, Apex Universities will be given the latitude to put in place the necessary ingredients to achieve world-class status. The universities' Board of Directors comprising high-calibre professionals will have full authority over the governance of the institution. The board will implement a stringent selection process to select the best individuals available to serve as the Vice-Chancellor and other leadership roles at the university. The Apex Universities will also select students based on academic merit and other holistic criteria that will require personal interviews. However, the composition of the student body must represent the ethnic diversity of the country without compromising the admission criteria.

The faculty will consist of outstanding individuals known for their scholarship and commitment to teaching. The Apex Universities will draw their management and academic staff from the top performers in HEIs worldwide, who will be awarded the necessary remuneration to attract them. As a centre of excellence, it will also be equipped with the best facilities and will draw its student body from a rigorous selection process designed to ensure the promotion of academic excellence.

Apex Universities will provide the nation better avenues to ensure the retention of the best and brightest students and faculty in our own HEIs.
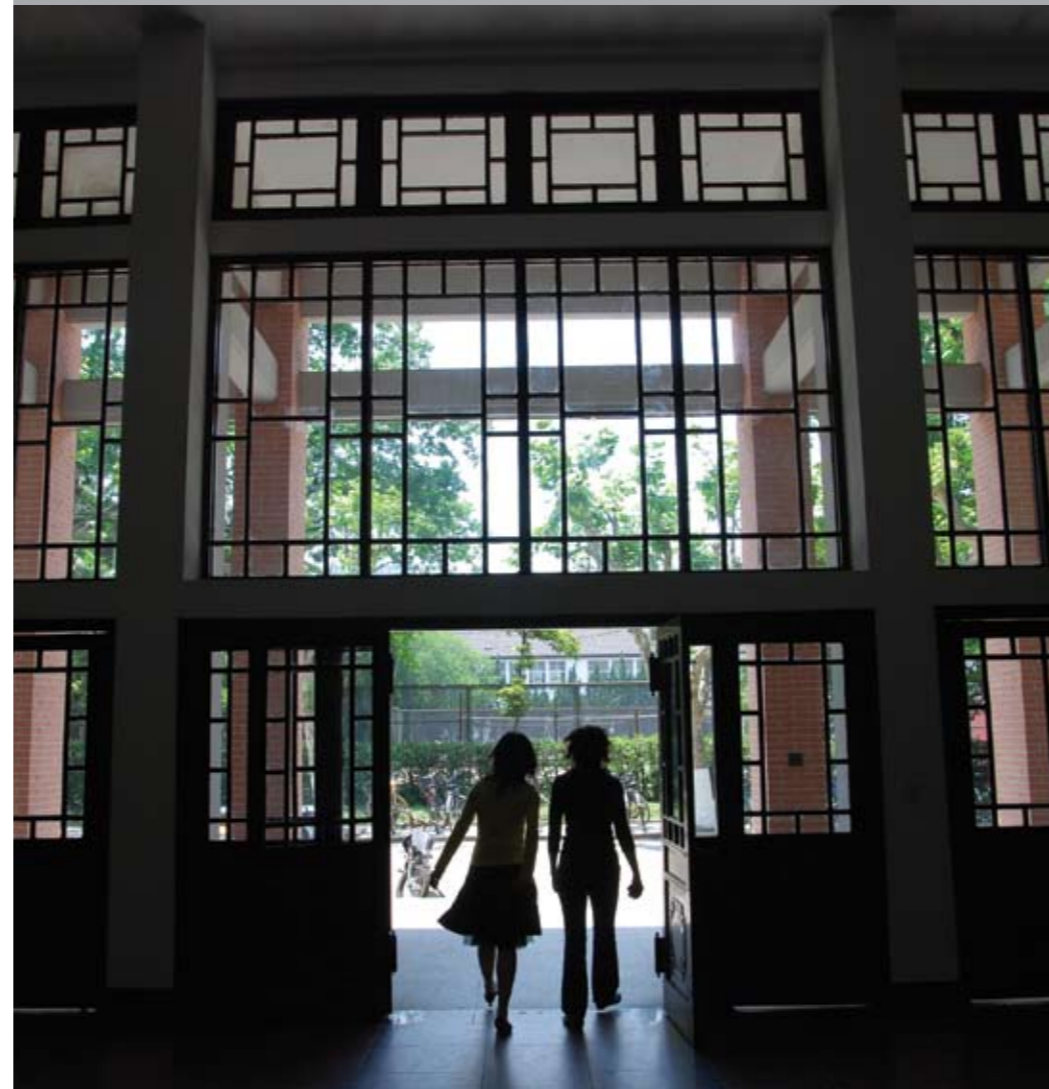
As preconditions of its success, Apex Universities must contain the following key elements:

1. **The best leaders.** Apex universities are to be headed by accomplished leaders in every sense of the word. They are visionary, fiercely motivated and committed to the ideals of excellent scholarship. They are managers and administrators par excellence who bring talents to bear on the optimal management of human and other assets of the university. They are great communicators endowed with an excellent command of the English language. They are morally upright and of impeccable integrity. They are great motivators who are able to spur others to excel.

2. **The best faculty.** The faculty must be talented and renowned for their scholarship in their respective fields. A mix of local and foreign academics would make for a healthy infusion of global knowledge. They are great teachers as well as great researchers in their own right. Their classroom technique will be refreshing, inspiring and motivating. Their research is creative and innovative, and is designed to advance human inquiry and extend further the frontiers of knowledge.

3. **The best students.** Merit shall be the uncompromising criterion for selection into Apex Universities. Only those who satisfy the rigorous academic entry requirement will be selected. A high standard of academic excellence is expected to be continually and consistently demonstrated by students throughout the duration of their courses. Student selection will reflect the demographic profile of the country including a healthy mix of top international students.

4. **The best facilities.** Apex Universities shall enjoy the best facilities. They shall be equipped with state-of-the-art facilities which would enhance the teaching-learning process and R&D.

A taskforce will be created by the MOHE comprising renowned local and international scholars, university and corporate leaders and representatives of the Government to develop the approach in establishing Apex Universities. The taskforce will be given 12 months to develop the criteria and shortlist existing and emerging HEIs based on the institutions' current strengths and long-term development plan. The taskforce will also be asked to develop recommendations on the types of incentives to be awarded to the Apex Universities.

Desired Outcomes

• Apex Universities to be established within the 9MP period.

• Apex Universities will be given autonomy to allow them to focus on becoming the best.

Action Plan

Action	Lead Agency	Deliverable	Timeline
▪ Develop complete criteria and development plan for Apex Universities.	▪ Apex Taskforce	▪ Apex University Report	▪ 2008:Q3
▪ Establishment of Apex Universities.	▪ MOHE	▪ Apex Status	▪ 2009:Q1
▪ Apex Universities in the top global ranking.	▪ Apex Universities	▪ At least one in top 100	▪ 2010

Malaysia must accelerate the production of high-calibre human capital at the doctoral level. We can overtake our competitors as Malaysia already possesses the necessary infrastructure.

MyBrain15

Imperatives

Many leading developing and developed nations have put in place policies and strategies to produce, at the doctoral level, quality human capital in the areas of science and technology. Top-class human capital is essential to promote economic growth, trigger industrial development and explore new areas of research that can sustain a nation's competitive advantage over others.

Malaysia's strategy to produce human capital in this category can now be enhanced. In the past national policy focused on increasing the enrolment of undergraduates. This approach was in line with the nation's overriding objective of providing better access to higher education.

To enhance global competitiveness, Malaysia must not rely too much on industrial activities based on research undertakings of foreign commercial organisations. It is therefore critical that Malaysia develops its own indigenous research capability in order to reap the benefits of research.

Malaysia must accelerate the production of high-calibre human capital at the doctoral level. We can overtake our competitors as Malaysia already possesses the necessary infrastructure; with its established residential and premier schools producing top-quality students. With this, we can produce top-class students in large quantities to feed the universities.

To achieve these objectives, we will create a pool of up to 100,000 high quality graduates with doctoral degrees within the next 15 years. This will assist in the levelling-up process pursued by this Plan.

Desired Outcomes

• 21,000 Ph.D. holders by 2010.
• Fast-track towards 100,000 Ph.D. holders in 15 years in the following disciplines:
- 60 per cent doctorates in science, technology and medicine
- 20 per cent doctorates in the humanities and applied literature
- 20 per cent doctorates in other professional fields.

Action Plan

Action	Lead Agency	Deliverable	Timeline
▪ Create partnerships between the Ministries of Higher Education; Human Resources; and Science, Technology and Innovation; public and private research institutions; and professional bodies; and the Public Service Department (PSD).	▪ MOHE ▪ MOHR ▪ MOSTI ▪ Professional bodies ▪ PSD	▪ Development plan for Ph.D. tracks and research programmes.	▪ 2008:Q1
▪ Similar partnerships must be pursued internationally with top-ranking research universities (split Ph.D. and other programmes).	▪ MOHE ▪ HEIs	▪ International programmes.	▪ 2008:Q3

Academic Performance Audit

Imperatives

The devolution of certain levels of authority from the MOHE to HEIs will not diminish the responsibility of the Ministry in any way, which, as a representative of the Government, is an important stakeholder in public higher education.

It is therefore essential, for purposes of monitoring quality, that the MOHE obtains from time to time an independent assessment of HEIs with regard to their quality. To this end an audit unit will be set up at the MOHE to coordinate the assessment of public and private HEIs. This unit will focus on academic audits only. Non-academic audit functions such as finance will remain outside the unit's scope.

Desired Outcomes

- Streamlining of all HEI quality assessment procedures to facilitate MOHE monitoring mechanisms.

- Creation of a HEI rating system to enable HEI ranking locally within institutional type.

Action Plan

Action	Lead Agency	Deliverable	Timeline
▪ Establish an independent audit assessment agency.	▪ MOHE	▪ Monitor, rate and audit the quality aspects of higher education.	▪ 2007 (end)
▪ HEI will be rated according to performance.	▪ MOHE ▪ MQA	▪ Rating system	▪ 2008:Q4

Lifelong Learning

Imperatives

Lifelong learning (LLL) as a policy agenda continues to receive significant emphasis by developed nations, spearheaded by organisations like OECD, UNESCO and the Council of Europe over the last three decades. The OECD policy brief on lifelong learning cites the following key reasons for this: the rapid pace of globalisation and technological change, the changing nature of work and the employment market, and the gaping disparities in access to learning opportunities between the knowledge-haves and knowledge have-nots.

The Government has recognised that the need to act is even more acute for a developing country like Malaysia and has put several measures in place. Today, the opportunity for continuing education is available through a myriad of institutions. Under the ambit of MOHE alone, adult learners can enrol at any of the following: public and private universities, university colleges, open universities, polytechnics, community colleges and private colleges.

Additionally, other Government agencies also offer education and training to citizens through the following Ministries: Entrepreneur and Co-operative Development; Rural and Regional Development; Agriculture and Agro-Based Industry; Women, Family and Community Development; Culture, Arts and Heritage; Youth and Sports; Tourism; and Health.

Opportunities for training are also routinely offered by:

- Employers, professional bodies and trade organisations
- NGOs and other civil society organisations
- Religious organisations
- Organisations affiliated to political parties

However, having these channels alone for continuing education and training opportunities is not sufficient for Malaysia's human capital development needs.

Malaysia urgently needs a clear, coherent, and comprehensive policy on lifelong learning. In the formulation of a policy on LLL, the following will be considered:

- The national vision for LLL (definition, goals and strategy), to fit Malaysia's socioeconomic objectives.
- Priority areas requiring Government intervention and encouragement while preserving diversity in formal and informal learning.
- Alignment with manpower and workforce requirements.
- Identification of groups that require active engagement such as rural and urban poor, Bumiputera communities in Sabah and Sarawak, Orang Asli and people with disabilities (OKU).
- Effective partnerships with all branches of Government, institutions, NGOs, business, industry, trade unions and professional bodies.
- High-quality and flexible learning provisions leading to certification to cater to adult learners' needs.

The following elements will also be considered:

- Governance structure to ensure roles are defined, resources are allocated and managed, and progress is on track according to pre-determined milestones.
- Learner population segments and their distinct life-cycle education and training needs.
- Incentives and encouragement for the creation of appropriate service offerings for identified target groups.
- Mechanisms to inculcate a lifelong learning culture and to encourage citizens to take ownership of their own learning and management of it throughout their lives.
- Means to inform, excite and guide citizens of LLL opportunities.
- Future roles of public and private institutions and training providers. Collaborations to facilitate policy implementation.
- Adoption of cost-effective learning delivery mechanisms such as distance learning and ICT-based learning.
- Credit mobility, recognition of prior learning and other mechanisms to facilitate certification through MQF.
- Funding and incentives for learners and service providers to invest in LLL.

The Government will play an essential and important role in setting the direction and creating the instruments to govern the development of lifelong learning in Malaysia.

A pervasive lifelong learning culture will be emphasised to support the nation's human capital development needs.

This also serves as an alternative route for access to and equity in tertiary education.

The governance structure will strive for quick traction and sustainable long-term success in the following form:

- Establishment of a National Committee for LLL (NCLLL) under the ambit of the National Advisory Council on Education and Training chaired by the Deputy Prime Minister. This is a necessary first step to ensure that the nation as a whole is mobilised, guided by and moves forward with the task of creating a knowledge society. NCLLL will be required to submit its plans, resource needs, anticipated outcomes and targets as well as KPIs.
- The National Committee will operate through a variety of partnerships and collaborations driven at the Federal level. At the State level it will work through the establishment of State Committees for LLL. These State Committees will be responsible for the implementation of the national plan and will work under the supervision of the National Committee.
- The membership of the committees will be determined by the Government but should at minimum be led by an educator of eminence. Membership must be representative of as many interest groups as possible.
- The MOHE will act as the secretariat to the NCLLL.

Desired Outcomes

- Increased adult learners so that by 2020, 33% of the work force will have tertiary qualifications.
- Pervasive LLL culture that supports the nation's human capital development needs.
- Alternative route for access to and equity in tertiary education for rural and urban poor, Bumiputera communities in Sabah and Sarawak, Orang Asli communities, and people with disabilities (OKU).

Action Plan

Action	Lead Agency	Deliverable	Timeline
• National Committee for LLL (NCLLL). • State Committees for LLL (SCLLL).	• National Advisory Council on Education and Training • MOHE • MOHR • PSD	• NCLLL • SCLLL	• 2008:Q1 • 2008:Q1
• National policy on lifelong learning.	• NCLLL • MOHE	• Clear, coherent, and comprehensive policies.	• 2008:Q2
• National strategy on lifelong learning.	• MOHE	• LLL 10-year roadmap.	• 2008:Q2
• Implementation of phase 1 of LLL roadmap.	• MOHE	• Phase 1 roadmap deliverables.	• 2008:Q4

Graduate Training Scheme

Imperatives

The issue of graduate unemployment partially stems from the lack of appreciation of the different roles that education and training play in employment. While education should provide general skills and a good orientation towards work, especially in the context of building positive attitudes, specific vocational skills fall within the ambit of training.

The right to pursue any particular discipline in education is the privilege and right of the individual. However, after having pursued a course of study in the area of his choice, the student will now be provided an additional opportunity to acquire specific career skills to prepare him or her for the workplace. From an array of skill areas made available, the student will select a skill that he or she wishes to pursue. The selected area should be both of interest to graduates as well as relevant to the needs of the industry.

The student will pursue this skill-based course according to the duration required to obtain the desired skills, after which he or she will graduate with the necessary certificate or diploma recognised by the industry. Industry participation in course design, evaluation and certification is paramount.

It must be said that from the perspective of the industry, the course offering to the students may generally be divided into two categories: professional courses that have high-exchange value with certain professions, and general courses. A third category may lie in between.

Professional courses are those that are related directly to the industry. Medicine, dentistry, accountancy and law are courses that may be categorised as such. Upon graduation, these students can enter directly into the related industry.

On the other hand, general courses such as history, geography, philosophy and literature may not be directly relevant to the needs of the industry (apart from educational institutions). Students taking general courses are the primary target candidates of this programme.

Desired Outcomes

- Training will be linked to industry in a concrete way.

- Avenues will be provided to enhance the employability of all students.

- The students will be empowered to improve their own employability. The Government will act as an effective enabler in providing training opportunities for graduates.

- Successful programmes will become foundations for lifelong learning.

Action Plan

Action	Lead Agency	Deliverable	Timeline
• Training schemes for graduates in non-professional fields will be established. Graduates may choose their areas of training.	• MOHE • Community Colleges. • Training institutes.	• Training scheme	• 2008:Q2
• Establish a National Coordinating Committee reporting to National Advisory Council on Education and Training to ensure that graduates who undertake general courses can acquire specific career skills.		• Career training	• 2008:Q2
• A fund, together with efficient disbursement mechanisms, will be established for this programme.	• MOHE/MOF	• Funding	• 2008 : Q2
• Career counsellors in public HEIs will work closely with graduates as well as participants in this programme to ensure successful employment placements.	• Public HEI	• High placement rate	• 2008 : Q2

PART C – IMPLEMENTATION SUPPORT

Transforming MOHE

"You must be the change you wish to see in the world."
~ Mahatma Gandhi.

The Ministry is fully committed to driving higher education transformation in order to develop the first-class human capital essential to the future of Malaysia. Here "change" refers to the overall philosophical shift in the way the MOHE interacts with HEIs. In the past, the roles of the Ministry have been more of a regulator and an enforcer of Government policies. Moving forward, these roles will still have to be played by the Ministry, but MOHE will emphasise its role as facilitator and lead partner in enhancing the higher education ecosystem. The lead partner does not only provide strategic direction, it also offers the support necessary to ensure the success of the institutions.

Towards this end, in the National Higher Education Strategic Plan, improving the Ministry's service delivery system has been identified as a key strategic thrust. Efforts are underway to improve the following areas:

- Governance and management: efficiency, effectiveness and integrity.
- Culture: professionalism, high performance, and teamwork.
- Financial resources: efficient allocation in achieving objectives.
- Human resources: synergy of new, existing and old expertise.
- Info-structure: timely availability of information and analysis.

Beyond revamping the Ministry's modus operandi, project and programme management best-practices will be employed to provide the right leadership and stewardship for the long-term transformation agenda. The following sections describe the programme governance structure for the first phase of our transformation. As we make the transition to future phases, the governance structure may also evolve accordingly.

Corporate best-practices will be adopted to drive the transformation plan.

The Programme Management Office will lead the transformation and build project management capacity.

Programme Governance

As our transformation progresses, the Ministry will require mechanisms to align ongoing programme activities with the strategic directions of higher education. These mechanisms will also be designed to help MOHE managers assess the programme's development and adjust content and direction when necessary.

To achieve these objectives, our programme will institutionalise effective governance, which is defined as follows:

- Governance, for a programme, is a combination of three factors: committed individuals filling executive and management roles; programme oversight functions which have been organised into structures; and policies that define management principles and decision-making procedures.

- This combination is focused on providing direction and oversight to achieve the desired outcomes. It must also provide data and feedback to determine the ongoing contribution of the programme to the overall strategy and direction.

This Plan will take up a number of elements in governance, including:

- Organisational structures: These will include a programme steering committee, a Programme Management Office (PMO), the programme organisational model and the project organisational model.
- Roles: These will include the ministerial executive sponsor, steering committee members, PMO director and managers and project managers.
- Mechanisms: Designed to provide guidance and direction, these will include policies, governance principles, decision or authority specifications, and regular review processes to identify and execute adjustments to ensure achievement of the planned outcomes.

A successful programme will be achieved through a combination of employing the right individuals, an effective structure for management and oversight, and a proper set of programme roles and responsibilities. Roles and responsibilities will be defined and structured with targets in mind.

Programme Structure

As a critical success factor, individuals who direct the programme and those who oversee its activities must be organised and efficient. Direction and decisions should be clearly and adequately communicated.

Programme Champion

The programme champion will be the "owner" and the programme's principal beneficiary and is accountable for achieving the programme's defined outcomes specified in the transformation plan.

Steering Committee

A Steering Committee is needed because this transformation will impact more than the MOHE. A large-scale initiative like this will require a governance mechanism through which all key stakeholder representatives can reach an agreement which will result in desired directions and outcomes for everyone.

Further, a steering committee is needed because this programme requires a forum in which the representatives can raise issues and adjust direction, resources or timing by consensus.

The Steering Committee will consist of representatives from other Ministries, HEIs, the corporate sector and eminent scholars. Their role is to monitor programme progress, understand issues raised and adjustments made, assess potential impact within their own organisations and report the information on committee decisions to their respective constituencies.

Programme Director

Throughout the planning and execution of the programme, the programme director and managers must ensure that the programme is linked to the MOHE strategy. As internal and external events affect the Ministry's initiatives, programmes must have mechanisms that will maintain a link between the initiative and the strategy, and provide for effective information exchange and necessary adjustments.

Programme Management Office

The Programme Management Office (PMO) will be set up to drive the overall transformation and to spearhead the development of project management capability within the Ministry. Four operating units will be created as follows:

1. The Project Delivery Unit will be a key resource in assisting project teams to establish internal competency in project analysis, design, management and review. Resources from this unit can be deployed to assist project planning and execution on a temporary basis depending on priority and availability.

2. The Process and Mentoring Unit will act as a training facility and a consultancy. It may mentor those who need guidance and be a source of information on project processes. This project office often helps in project setups and post-project reviews.

3. The Monitoring and Reporting Unit will assist in the review and tracking of plan conformity, benefits realisation, financial expenditures, and generation of reports and financial documents to ensure compliance with policies and practices.

4. The Communication Unit will manage communication flow between the various stakeholders. It will be the keeper of the programme's communication plan and be responsible to ensure stakeholders are regularly updated to facilitate buy-in and minimise resistance.

Project Team

The project teams will comprise dedicated team members led by a project manager. These teams will carry out the planning and design of a specific initiative which could be a pillar or a critical agenda programme.
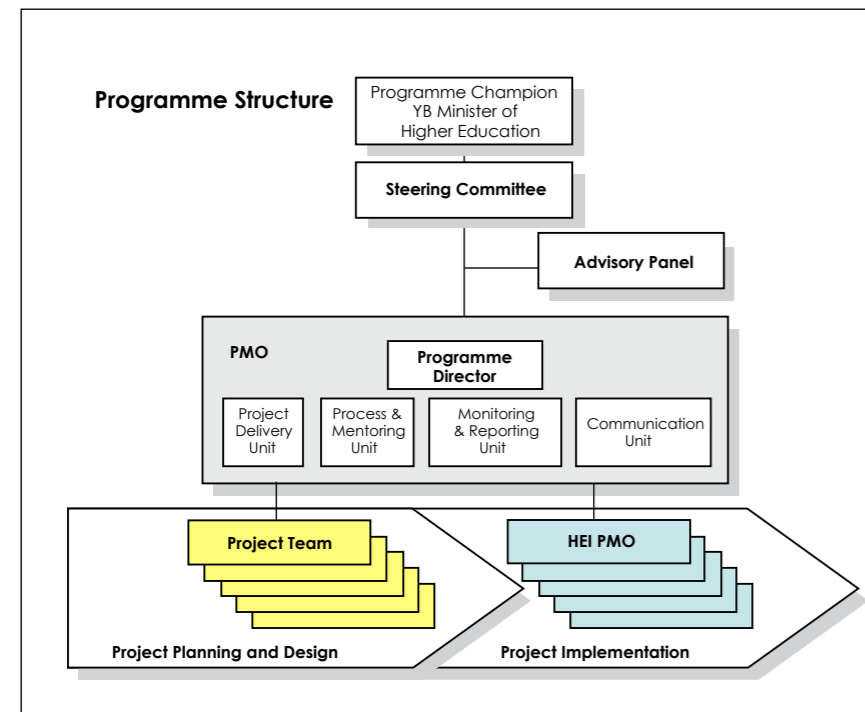
Team members may include a cross-section of individuals from various institutions and agencies. The teams may also be supplemented by consultants and subject matter experts approved by the Steering Committee. PMO support will be provided to ensure quality and consistency across projects.

HEI PMO (iPMO)

Similar to the central PMO at the Ministry's level, mini PMOs will be formed at institution level to provide support for implementation planning and execution. The iPMO is headed by the institutional transformation "champion" who will be supported by a small team of about five members who are dedicated to the programme.

During the planning and design phase of an individual project, the iPMO team may be required to assist the Project Team in facilitating interviews and access to HEI data and expertise. PMO support will also be provided in the setting up and mentoring of iPMOs.

The chart below illustrates the various roles and their reporting relationships in the programme structure. The Advisory Panel component is optional and will be convened as and when necessary.

Programme Structure

Programme Champion
YB Minister of
Higher Education

Steering Committee

Advisory Panel

PMO

Programme Director

- Project Delivery Unit
- Process & Mentoring Unit
- Monitoring & Reporting Unit
- Communication Unit

Project Team

HEI PMO

Project Planning and Design　　　**Project Implementation**

Conclusion

Human capital development is the true north of our mission for higher education. Providing the incentives, legislation, policies and governance framework conducive to the pursuit of academic achievement will enable HEIs to educate a new generation of Malaysians who are able to engage actively in the global world.

The levelling-up approach does not discriminate: It will allow high-achieving students greater scope for progress, while simultaneously providing those less academically inclined with wider opportunities for advancement.

While levelling up will cater to the needs of all Malaysians, the particular requirements of historically disadvantaged groups will not be ignored. The needs of these communities will be strategically prioritised in the Action Plan.

Parallel to the initiatives on human capital development, the Plan also addresses the need for important structural changes within the higher education ecosystem. The provision of infrastructure necessary for the advancement of all aspects of higher education is of paramount importance, as is the continuous provision of highly-committed, motivated and qualified academic staff.

This Plan, when implemented fully, will lay the foundation for the revolution of Malaysian higher education—a revolution that is not merely desirable, but necessary for our survival.

Abbreviations

9MP	9th Malaysia Plan
AKePT	Akademi Kepimpinan Pengajian Tinggi (Higher Education Leadership Academy)
BOD	Board of Directors
FDI	Foreign Direct Investments
HEI	Higher Education Institutions
LLL	Lifelong Learning
MITI	Ministry of International Trade and Industry
MoA	Memorandum of Agreement
MOHE	Ministry of Higher Education
MOHR	Ministry of Human Resources
MOSTI	Ministry of Science, Technology and Innovation
MoU	Memorandum of Understanding
MQA	Malaysian Qualification Agency
MQF	Malaysian Qualification Framework
NCLLL	National Committee for Lifelong Learning
NGO	Non-Governmental Organisations
NIS	National Innovation System
OECD	Organisation for Economic Co-operation and Development
OKU	Orang kurang upaya (People with disabilities)
PMO	Programme Management Office
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional (National Higher Education Fund Corporation)
PSD	Public Services Department
R&D	Research and Development
R&D&C	Research, Development and Commercialisation
RSE	Researchers, Scientists and Engineers
SCLLL	State Council for Lifelong Learning
T&L	Teaching and Learning
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UUCA	Universities and University Colleges Act