



MINISTRY OF HIGHER EDUCATION - **VISION**

THE NATIONAL HIGHER EDUCATION
STRATEGIC PLAN
BEYOND **2020**

THE NATIONAL HIGHER EDUCATION
ACTION PLAN
PHASE 2 (2011-2015)

MINISTRY OF HIGHER EDUCATION

**THE NATIONAL HIGHER EDUCATION ACTION PLAN
PHASE 2 (2011 - 2015)**



KPT
KEMENTERIAN PENGAJIAN TINGGI

INSPIRING HIGHER EDUCATION TRANSFORMATION

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Message from the Minister of Higher Education



Thanks to Allah the Almighty, with His blessing and His grace, we have succeeded in implementing Phase 1 (2007-2010) of the National Higher Education Strategic Plan (PSPTN), which was formulated to enhance the quality of human capital through enhancement of national higher education. I am grateful to those who have been very committed in terms of sharing their expertise, energy and time in ensuring a smooth implementation of Phase 1, which aimed to lay the foundation for a smooth implementation of other phases of the PSPTN.

The national higher education plays a fundamental role in transforming Malaysia into a high-income developed nation whose citizens are competitive and innovative. It is thus imperative for Malaysia to have a strong and effective foundation for higher education. The Phase 2 Action Plan (2011-2015) charts the direction of the national higher education through the guidelines for the strengthening and enhancement of the implementation of PSPTN Phase 2. The PSPTN Phase 2 of the strategic plan will also outline the necessary steps that must be taken to propel Malaysia globally.

The cooperation of all sectors in realising the aspiration to “strengthen and enhance” our higher education is highly desirable. Our efforts through the combination of expertise, ideas and strategies will lead us to our nation's success, which will benefit all sectors for the nation's future prosperity.

Wassalam,

Dato' Seri Mohamed Khaled Bin Nordin

Message from the Secretary General



Phase 1 of the National Higher Education Strategic Plan (PSPTN) has laid a strong foundation for the Ministry of Higher Education (MoHE) to move forward. The seven major thrusts of the PSPTN are the focal reference for ensuring a systematic and well-planned implementation of the Phase 2 Action Plan, which is translated through the Critical Agenda Projects (CAPs).

The emphasis placed on quality aspects of the PSPTN is to ensure that the initiatives undertaken meet the national demands for improving the quality of human capital to become a high-income nation. In this context, close cooperation in knowledge-sharing, as well as a high level of commitment is required.

At the same time, sensitivity to the development of global higher education and other dynamic ecosystem changes is necessary in implementing the planned initiatives. For the success of this phase, apart from actively responding to current demands, we must use our knowledge proactively to initiate the idea that knowledge and outcomes will revolutionise the higher education sector.

Finally, my sincere thanks and heartfelt appreciation to all those who have been involved and are highly committed to ensure that the PSPTN Phase 2 Action Plan can be realised.

A handwritten signature in black ink, which appears to read 'Ab. Rahim Bin Md. Noor'. The signature is fluid and cursive.

Datuk Ab. Rahim Bin Md. Noor

INTRODUCTION

Higher education in Malaysia has prevailed since the establishment of the Ministry of Higher Education (MoHE) in 2004. Issues in higher education are also increasingly gaining the attention of various sectors, be it the media, people and the government. In this regard, the ministry has introduced various policies to strengthen the national higher education to ensure the existence of a conducive ecosystem, which leads to knowledge excellence. This is in tandem with the government's effort to make Malaysia the regional hub for higher education, as well as the main choice for international students and intellects by 2020.

The Phase 2 Action Plan of the National Higher Education Strategic Plan (PSPTN) will continue to strengthen and empower the national higher education sector during the 10th Malaysia Plan (10MP) for the period of 2011 – 2015. Until the end of January 2011, there were 20 public HEIs, 27 polytechnics and 72 community colleges (including branch campuses) in operation. Special emphasis is placed on the development of educational infrastructure, student character, curriculum, research, innovation and development, as well as on the enhancement of the use of technology in the teaching and learning process, including online and distance learning.

This Action Plan focuses on the execution and achievement of predetermined projects at higher education institutions (HEIs) – public universities, polytechnics and community colleges. The involvement of private sector HEIs, however, is realised through policy implementation, quality assurance effort, leadership training and efforts that support Private-Public Partnerships under the 10MP. With the established partnerships, it is hoped that the huge differences that exist between the public HEIs and those of the private sectors be reduced through knowledge- and resource-sharing initiatives between the two entities. If the HEIs are transformed by instruments created by the PSPTN, the role of private institutions will be mobilised through the Economic Transformation Programme (ETP) initiatives. Despite the differences between the two entities, the expectations for productivity and outcomes are the same, i.e. towards the nation's economic and social prosperity.

Our true aspiration to attain a high-income developed nation status is very much dependent on innovation-based economy founded on high-level knowledge and creativity. On this basis, the capability of the nation's public and private institutions of higher education must be continuously developed through innovative approaches that significantly differ from those conventional ones. During the implementation of the PSPTN Phase 2, emphasis is given to better access to higher education, with special emphasis on postgraduate programmes, which will be stipulated in postgraduate programmes of respective public HEIs. An increase in the number of students at this level will contribute to the empowerment of the nation's human capital towards the strengthening of a Knowledge Society. This is in line with the UNESCO report (2007: 17), which states that a Knowledge Society is "... a society that is nurtured by its diversity

and its capacities." The increase in the access to postgraduate programmes will contribute to research activities, development and innovation, which is closely linked to the nation's economic growth.

The emphasis of this Phase is on greater efforts in enabling research and development activities towards outcome-based innovation and commercialisation. In this context, all public HEIs must have a clear direction or R&D Roadmap and take on more rigorous efforts in ensuring the existence and management of a research-innovation-commercialisation chain value. The openness of all implementing parties and stakeholders is very important, as this will contribute to the improvements leading to quality research and innovation enhancement within the national higher education sector. The efforts taken will also realise the nation's aspiration to make universities the nation's hub for innovation. In this regard, smart partnership between institutions of higher education and the industry must be established, as both entities are dependent on each other in the context of nation development. Strong collaboration must exist not only for aspects related to teaching and learning, but also to ensure that the joint effort of the two entities can address various challenges in creating a steady environment. At the same time, the community must benefit from the various collaborative efforts between the academia and industry for the prosperity of the nation's socio-economic.

The emphasis on the increase of quality human capital, a result of the initiatives of all sectors, is in tandem with the belief that innovative human capital is the main vehicle that will accelerate the nation's transformation. This was also emphasised in the 10MP and New Economic Model. In this context, the Tertiary Level Innovative Human Capital Development Action Plan was created with a rationale to drive an innovation-based economy, whereby the human capital functions as the main mover. In addition, the involvement of the society from all walks of life in driving the nation economy can be seen through continual learning, whose objectives are clearly stated in the Blueprint on Enculturation of Lifelong Learning. The execution of this plan will enable the society from all walks of life to benefit from the HEIs that are available in their community for knowledge and qualification enhancement. This will produce more knowledgeable workers and skilful workforce. In addition, the ICT Action Plan will be formulated. It will focus on the role of ICT as a medium for enabling the industry and for the development of the ICT industry per se. The execution of the three agenda at MoHE level is aligned to the PSPTN Phase 2 Action Plan, which will create a dynamic synergistic ecosystem with a significant added value towards achieving the nation's aspiration.

Malaysia aspires to be an international hub for higher education by 2020. This aspiration must be translated and effectively implemented by all sectors, specifically by MoHE as the policy maker, and by HEIs as the policy implementer to ensure delivery of world-class services. This is essential, in particular, in the era in which higher education is regarded as a form of commodity. Thus, Malaysian stature as a quality higher education provider requires continual improvement and benchmarking. The emerging status of Malaysia as a quality higher education provider must be enhanced as the attained outcomes



are not limited to revenue flow (for example, income generation), but also to intangible outcomes, such as shared knowledge and increased expertise. Internationalisation programmes must focus on the effort to make Malaysia a global player, whereby Malaysia's involvement is not limited to student and staff exchange programmes, but also to programmes that maximise Malaysia's capability in collaboration efforts and consultation services, globally. Through internationalisation, the higher education sector will place emphasis on developing diplomatic initiatives to share Malaysian values with other nations.

Higher education excellence will continue to be the main focus of the PSPTN Phase 2 and other phases, with a current status of 5 research universities and one university, USM (also a research university), awarded an APEX university status. The APEX project will end in 2013, within the PSPTN Phase 2. The effectiveness and the outcome of the project will be evaluated and its performance will be periodically monitored during its period of implementation. The survival of the project will be determined based on the findings and assessments of the current stature of higher education. Since indicators of excellence of higher education already exist in the form of research university status, these indicators would be more robust, in terms of quality and quantity by 2013. The initiatives to strengthen the education sector will see the recognition of research universities with a focus on the social sciences. This is based on the belief that the strength of a country is not only dependent on its success in science and technology, but also on a balance with aspects of the social sciences. The number of recognised Top Business School (TBS) is expected to increase based on criteria that emphasise quality benchmarking against other world renowned entities. Meanwhile, the existing Higher Education Institution Centres of Excellence (HICoE) will be upgraded to the national Centre of Excellence (CoE) at the regional level and will subsequently attain recognition at the international level, whereby, the assessment will be implemented based on specific criteria. Higher education excellence, nonetheless, will not be based on the current world's renowned ranking systems or instruments. The Ministry of Higher Education will not be obsessed with such world ranking systems, as the main focus of higher education must be in line with the fundamental needs of the nation. This may not be necessarily the same as the elements used in the adopted ranking system. Thus, in this light, no rank target will be specified. However, observations will be done continuously on the development of certain elements used in the instruments, which can be used for benchmarking purposes.

In line with the efforts to propel the country towards achieving the objectives of a high-income nation, the Phase 2 Action Plan focuses on the development of related fields and aspects. The need to increase the nation's number of skilled and technical workforce calls for action to strengthen the fields of study based on Technical Education Vocational & Training (TEVT). Technical Universities (MTUN), polytechnics and community colleges play a vital role in driving this agenda through mainstreaming approach to technical and vocational education, which will involve improving access, upgrading programmes, collaboration of intra-and inter-institutions, offering new programmes, and so forth. The areas of study



and R&D, which are in line with the 12 requirements of the National Key Economic Areas (NKEA) should be focused on, as the outcomes will not only enhance the higher education sector, but will also be felt by the nation's economic sector, as a whole.

Besides these, Phase 2 emphasises on the efforts to put entrepreneurship education in the mainstream. Its objective is to promote entrepreneurship among all students, which will in turn, contribute to the nation's economic growth. The objective is based on the principle that the existence of the entrepreneurship culture and a major involvement of the students in entrepreneurship will ensure economic and social success of individuals or society at local, national, or global levels. All implemented initiatives are not only for the Entrepreneurship CAP initiatives, but also for the PSPTN on the whole, which are directed towards realising the goals of enterprising Malaysia. This success will enable the nation to achieve its objective to become a high-income nation by 2020.

Regardless of the form of higher education 'Strengthening and Enhancement' activities carried out, the Phase 2 Action Plan assures its quality through appropriate approaches and benchmarking mechanisms at the ministry or institutional level. PSPTN's major aspiration to increase the human capital of the nation and become an international hub for higher education excellence must be achieved without compromising on quality.



PSPTN PHASE 1 IMPLEMENTATION

Implementation

The National Higher Education Strategic Plan will be implemented in four distinct phases:

- Phase 1: Laying the Foundation (2007 – 2010)
- Phase 2: Strengthening and Enhancement (2011 – 2015)
- Phase 3: Excellence (2006 – 2020)
- Phase 4: Glory and Sustainability (beyond 2020)

The implementation of the PSPTN Phase 1 was guided by the 2007 – 2010 National Higher Education Action Plan, which outlined strategies and action plan that aimed at enhancing and improving the national higher education system within the period of the 9th Malaysia Plan (9MP).

The report on the achievement of PSPTN Phase 1 which is in the form of a Cabinet Paper (NJM) was presented to the cabinet as follows:

- PSPTN Implementation Development Report for the period of August 2007 – June 2008
- PSPTN Implementation Development Report for the period of July – December 2008
- PSPTN Implementation Development Report for the period of January – June 2009
- PSPTN Implementation Development Report for the period of July – December 2009
- PSPTN Implementation Development Report for the period of January – December 2010

The report forwarded through the NJM was based on the implementation and direction plan for each Critical Agenda Project (CAP) whose achievement and respective outcomes were determined in the Phase 1 Implementation Plan.

Until December 2010, 22 CAPs were identified and were in operation in terms of direction setting, implementation of plans and determination of indicators for benchmarking performance. One CAP, the Human Capital Development Fund (HCDF) CAP, however, has been dropped due to the presence of overlapping objectives of the HCDF and MyBrain15 CAPs. In relation to this, a decision was made in a PSPTN Steering Committee meeting for all the objectives of both CAPs to be covered under MyBrain15. All 22 CAPs include projects that are centred on five institutional pillars identified in PSPTN, namely:



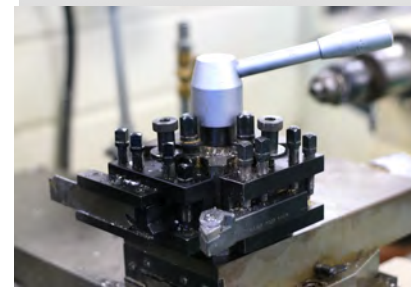
- Governance
- Leadership
- Academia
- Teaching and Learning
- Research and Development

17 other CAPs are as follows:

- Internationalisation
- Industry-Academia
- Graduate Employability
- Private Higher Education Institutions (Private HEIs)
- Holistic Student Development
- Quality Assurance
- Polytechnic Transformation
- Accessibility and Sustainability
- MyBrain15
- Accelerated Programme for Excellence (APEX)
- e-Learning
- MoHE Delivery System
- Lifelong Learning
- Top Business School
- Centre of Excellence (CoE)
- Entrepreneurship
- Community College Transformation

Each CAP is given the task to set up a specific secretariat, which acts as its owner for the purpose of accountability related to the implementation of the agenda that will lead to achieving its objectives.

Each CAP Secretariat is headed by a chairman who is appointed by the Secretary-General of MoHE. The chairman is appointed from among the academics who have the expertise in the field related to the CAP under his/her leadership. The chairman leads each CAP team, which comprises the Head of the Secretariat and other members that are made up of administrators, academics and other stakeholders.



The process of performance review and key performance indicator review is implemented continuously. It is based on current needs, as well as on the changing scenario and the needs of higher education, not only in Malaysia, but also globally. In this context, the approach that has been adopted is as follows:

CRITICAL AGENDA PROJECT CONTINUOUS ENHANCEMENT PROCESS



Achievement Summary

The achievement of the PSPTN Phase 1 was benchmarked by the achievement of each CAP target, whose key performance indicators (KPI) were predetermined through consultation and discussion with the implementing parties and stakeholders. The following KPI achievement scale was used to indicate each predetermined KPI in relation to its target.

KPI ACHIEVEMENT SCALE

Target achieved 100% and above
Target achieved between 50% and <100%
Target achieved < 50%

There were 107 applicable KPIs at the end of PSPTN Phase 1 (2010). The achievements of the 107 KPIs are stated below:

PSPTN CAP 2010 KPI ACHIEVEMENT

#KPI			
107	64	23	20
% achievement	81% (87)		19% (20)

81% of the predetermined KPIs were on the right track, whereas the remaining 19% required strengthening of implementation. However, in general, taking into account the changing scenario and dynamic higher education ecosystem, there is a need for the key performance indicators to be continuously refined, taking into consideration and placing emphasis on aspects of quality, outcomes and the impact of the implemented initiatives.

In terms of quality, the PSPTN achievements and outcomes, the results of the initiatives undertaken by each CAP within the PSPTN Phase 1, are as follows:

CAP	Achievement & Outcome
Governance	<ul style="list-style-type: none"> University and University College Act 2009 (Amendment 2009) Separation of Department of Polytechnic Studies and Community College Public HEI Autonomous Implementation Readiness Instrument
Leadership	<ul style="list-style-type: none"> Establishment of Higher Education Leadership Academy 2008 (AKePT)
Academia	<ul style="list-style-type: none"> Formation of the National Professor Council National Academic Award
Teaching and Learning	<ul style="list-style-type: none"> Malaysian Soft Skills Scale-My3S - Malaysian Soft Skills Scale Instrument – to benchmark the mastery level of students' soft skills
Research and Development	<ul style="list-style-type: none"> Research University (RU) at 5 Public HEIs MyRA (Research Assessment Instrument) – Research University Evaluation System–for the implementation of higher education institution self-evaluation based on the eight criteria of Research Universities
Internationalisation	<ul style="list-style-type: none"> Restructuring of Malaysian Student Department (MSD) and renaming it as Education Malaysia Increase in the number of international students to 86,919 Implementation of HEI Student Mobility Programmes



CAP	Achievement & Outcome
Industry-Academia	<ul style="list-style-type: none"> Industry Training Policy
Graduate Employability	<ul style="list-style-type: none"> Graduate Tracer System 75.4% graduates have secured jobs within six months upon graduation
Private HEIs	<ul style="list-style-type: none"> Private HEIs' Quality Improvement: <ul style="list-style-type: none"> Upgrading of three private colleges to University College (UC) status Upgrading of two University Colleges to University status Cancellation of registration of 15 private colleges MyQUEST Product - Private College Equivalence System Quality Benchmark
Holistic Student Development	<ul style="list-style-type: none"> Implementation enhancement of the co-curricular activities with Credit as a Graduation Requirement at all Public HEIs Formation of the Council of the Directors of Public HEIs' Co-curriculum Centre
Quality Assurance	<ul style="list-style-type: none"> Implementation: <ul style="list-style-type: none"> Programme Accreditation Institution Rating Academic Performance Audit
Polytechnic Transformation	<ul style="list-style-type: none"> (Selected) Premier Polytechnics: Three Polytechnics Polytechnic Transformation Plan Four Diploma Programmes
Accessibility and Sustainability	<ul style="list-style-type: none"> Access to higher education for 17 to 23 year-old cohorts. Increase in enrolment (Public HEIs, Private HEIs, Polytechnic, Community College) Offering of 'Ujrah'-based PTPTN Educational Funding
MyBrain15	<ul style="list-style-type: none"> Increase in the number of lecturers with PhD Qualification and its equivalent Higher Education Funding Programmes: MyMaster, MyPhD, Industrial PhD
Accelerated Programme for Excellence (APEX)	<ul style="list-style-type: none"> Appointment of USM to lead the APEX programme Formation of Centre for Engineering Excellence The World's First Genome Rubber Formation of Global Sustainability Analysis Centre Global Archaeology Research Centre Sophisticated Halal Collagen Centre
e-Learning	<ul style="list-style-type: none"> A Study on the Status of the Use of e-Learning and its Infrastructure e-Learning Policy Framework
MoHE Delivery System	<ul style="list-style-type: none"> Ministry of National Higher Education Transformation Plan
Lifelong Learning	<ul style="list-style-type: none"> Blueprint on Enculturation of Lifelong Learning for Malaysia 2011-2020
Top Business School	<ul style="list-style-type: none"> UKM-GSB (Graduate School of Business) UPM-GSM (Graduate School of Management)



CAP	Achievement & Outcome
Centre of Excellence (CoE)	<ul style="list-style-type: none"> • Upgrading of Six CoEs to HICoEs: <ul style="list-style-type: none"> ○ UM Centre of Research for Power Electronics, Drives, Automation & Control (UMPEDAC), Universiti Malaya ○ UKM Medical Molecular Biology Institute (UMBI), Universiti Kebangsaan Malaysia ○ Institute for Research in Molecular Medicine (INFORMM), Universiti Sains Malaysia ○ Institute of Bioscience (IBS), Universiti Putra Malaysia ○ Centre for Drug Research (CDR), Universiti Sains Malaysia ○ Accounting Research Institute (ARI), Universiti Teknologi MARA
Entrepreneurship	<ul style="list-style-type: none"> • Establishment of Entrepreneurship Unit at MoHE & Public HEIs • HEI Entrepreneurship Development Policy
Community College Transformation	<ul style="list-style-type: none"> • Strengthening of Community College Programmes • Introduction of the Community College Modular Certificate Programme

FORMULATION OF PSPTN PHASE 2 ACTION PLAN

The Phase 2 Action Plan is the result of discussion and consultation of each appointed CAP team, in collaboration with HEIs, polytechnics and community colleges, and other related stakeholders, such as the industry, to ensure that all specified agenda achieve their focus.

The Action Plan drawn up for the implementation of Phase 2 is based on the achievement of each CAP for Phase 1 implementation. It also focused on the PSPTN objectives as stated in the **“National Higher Education Strategic Plan beyond the Year 2020”** document. As a result of the reference to the two sources, each CAP secretariat presented the “Planning of PSPTN Phase 2” for the related CAP at the PSPTN Steering Committee Meeting chaired by the Minister of Higher Education, to discuss ways to improve the implementation of Phase 2. The formation of this plan has taken into account recent government policies, with specific reference made to the following documents:

- 10th Malaysia Plan (10MP)
- The New Economic Model (NEM) for Malaysia
- Government Transformation Programme (GTP) Direction Plan
- Economic Transformation Programme (ETP): Direction for Malaysia



PSPTN Phase 2 Action Plan Objectives

The National Higher Education Strategic Plan was comprehensively and holistically designed for the purpose of elevating national higher education as the international hub for higher education excellence. This Strategic Plan emphasises seven major thrusts, namely:

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

Within the PSPTN Phase 2, the seven thrusts remain emphasised as stated in the Plan. All 23 CAPs implemented within the implementation period of the PSPTN Phase 2 play a significant role in the attainment of the objectives of the seven thrusts, although the role of each CAP differs from one another. In other words, the attainment and implementation of the objectives of all CAPs in their entirety will lead to the accomplishment for all thrusts; the implementation of only one CAP will not exclusively fulfil the objective of a particular thrust (e.g., Thrust 5 Objective: "Intensifying internationalisation" can be achieved through the joint implementation and achievement of various CAPs, for example, Internationalisation, Industry-Academia, Private HEIs, CoE, and so forth).

Phase 2 Action Plan Implementation

The Phase 2 Action Plan outlines a mechanism and an execution plan, as well as the outcomes that will result from the execution of the planned initiatives. As stipulated in the Phase 1 Implementation Plan, aspects of planned transformation and initiatives differ in the time frame set for their achievement. Although there are short-term initiatives that can be achieved within the implementation of the 10MP, in line with the PSPTN Phase 2, there will be some initiatives that require a longer time to achieve.



Implementation Strategy

During PSPTN Phase 1, each institution has set a target based on its expected capability. For most of the CAPs, there is a gap between the accumulated achievements of all institutions and the national targets set by the central CAP.

The implementation of Phase 2 dictates that the predetermined targets set at the central level are assigned to each relevant institution. This approach is important to ensure that the nation's target can be achieved, and the issues, as well as implementation challenges can be addressed more effectively. In this context, the CAP team plays an important role in driving the implementation of the necessary planned actions. Bilateral relations with the Institutional Programme Management Office (iPMO) team is critical, and the CAP team acts as facilitators to ensure that the assigned targets are implemented at the institutions and that the targets are achieved, which will in turn, contribute to the achievement of national targets that will lead to the successful achievement of the specific CAP.

In order to ensure that the plan acts as an accurate guide for the implementation of the transformation initiatives, the outcomes will be monitored and measured through monitoring efforts undertaken by the Programme Management Office (PMO). Continuous monitoring efforts are important to ensure that the plan is executed. This is implemented through the process of assessment, review (if necessary), programme intervention and so on. Monitoring efforts also include the resolution of issues and challenges that prevent or delay the process of achieving the KPIs and subsequent specified outcomes.

A study of the PSPTN Phase 2 direction will be conducted to ensure that all CAPs are implemented based on the foundation set forth in the **“National Higher Education Strategic Plan Beyond 2020”** document.

Interface with Phase 1 Action Plan

As of December 2010, i.e., at the end of PSPTN Phase 1, 22 CAPs had been implemented in the efforts to achieve the PSPTN objectives. At the 2011 New Year Message Function, the Honourable Minister of Higher Education announced the addition of another CAP, specifically, the 'Knowledge Transfer Programme' (KTP). This addition brings the total number of the PSPTN Phase 2 CAPs to 23.



Similar to the implementation of Phase 1, five of the CAPs are designated as the five institutional pillars, namely:

- Governance
- Leadership
- Academia
- Teaching and Learning
- Research and Development

The five institutional pillars are emphasised in the PSPTN Phase 2 implementation. These have been refined in terms of strategic objectives, transformation initiators and quality achievement. The focus on the five institutional pillars is important in ensuring the sustainability of institutions, enhancement of quality institutions, as well as on the quality of the products.

18 CAPs that will act as the PSPTN Phase 2 transformation catalysts are as follows:

- Internationalisation
- Industry-Academia
- Graduate Employability
- Private Higher Education Institutions (Private HEIs)
- Holistic Student Development
- Quality Assurance
- Polytechnic Transformation
- Accessibility and Sustainability
- MyBrain15
- Accelerated Programme for Excellence (APEX)
- e-Learning
- MoHE Delivery System
- Lifelong Learning
- Top Business School
- Centre of Excellence (CoE)
- Entrepreneurship
- Community College Transformation
- Knowledge Transfer Programme (KTP)



All 18 CAP teams play a role in undertaking the initiatives that contribute to the quality enhancement of the national institutions of higher education, on par with other world renowned institutions. The approach taken is through the refinement of various aspects of strategic objectives, initiation of transformation and quality of achievement based on Phase 1 plan and its related achievement. The CAP in this category supports the efforts undertaken by the CAP teams designated as the five institutional pillars (as per page 18).

CRITICAL AGENDA PROJECT (CAP)

CRITICAL AGENDA PROJECT GOVERNANCE

Introduction

Strengthening the governance of HEIs is an important step towards the accomplishment of the fourth pillar of the PSPTN, which is the upgrading of the Public HEIs. The Governance CAP is one of the agenda adopted with the aim of achieving the following objectives:

- To strengthen the governance of the Public HEIs to the level on par with those of world renowned HEIs;
- To upgrade the management of the Public HEIs to ensure they are run effectively and at the highest level of integrity in order to create a conducive environment for learning; and
- encourage the Public HEIs to move toward an autonomous system of governance that includes the governance of finance and wealth generation, human resources and academic administration.

The role of the Governance CAP team is to collaborate with the Ministry and support it to upgrade the nation's HEIs. The team has examined integrity, accountability, good governance, autonomy, and other aspects of governance in its effort to strengthen the governance of the Public HEIs, in line with developments in world renowned universities. Autonomy is said to be an important element that could ensure the competitiveness, creativity and flexibility in the management system of an institution. In fact, it could be instrumental in driving the Public HEIs towards excellence.



To ensure that autonomy actually yields the desired result of producing excellent Public HEIs, both the Governance CAP team and the Ministry have identified good governance as an important factor. Subsequently, the Governance CAP team has developed an action plan and strategies to be implemented at both the ministerial and Public HEIs levels.

An instrument was also developed by the CAP team to evaluate the governance system at the Public HEIs. Four areas, namely the institutions of governance, finance and income generation, human resources, and academic administration were identified as necessary to be upgraded as they involve the management of resources. Through the Governance CAP, both the Ministry and the Public HEIs work together to ensure that the management of resources is implemented in accordance with the basic principles listed below:

- Practising responsibility, transparency, accountability and value for money in all transactions;
- Strengthening the system and structure of governance, and draft clear regulations that support autonomy and that ensure check and balance and transparency;
- Adopting the Public Service Circulars as the basis for guidelines regarding internal money management, and recognising universities' Board of Directors as the governing body replacing the roles of the Treasurer in monitoring and acting for the best interest of the government's investments, where applicable;
- Adopting the Public Service Circulars as the basis for guidelines regarding human resource management, and to recognise universities' Board of Directors as the governing body replacing the roles of the Public Services Department, where applicable;
- Limiting the financial responsibility and exposure of the government to the approved annual management and development budget allocations, unless decided otherwise by the Central Government;
- Ensuring that any income generation at the Public HEIs serves to protect the interests of the university and the government;
- Ensuring that any remuneration scheme created by the Public HEIs under the provisions of the Universities and Colleges Act is based on the principles of balance and continuity and does not in any way burden the government; and
- Being firm in taking disciplinary action against members of staff who fail to comply with procedures and regulations, or who are negligent in carrying out their duties.



Phase 1 Status Summary

Overall, the development of the Code of University Good Governance (CUGG), the University Good Governance Index (UGGI) and the Guide for Preparing and Conducting an Audit to Determine the Readiness for Autonomy were completed in the year 2010. The effectiveness of these instruments will be tested in a pilot audit that will be conducted in March 2011 in three Public HEIs: Universiti Kebangsaan Malaysia, Universiti Sains Malaysia and Universiti Sains Islam Malaysia.

The aim of the Governance CAP and the Ministry in developing these instruments for measuring the readiness of the governance system of the Public HEIs was to ensure that the autonomy that will be implemented by the Public HEIs will benefit the government, the Public HEIs and the people. This is not an easy task as we are faced with implementation issues such as the following:

- The planned audit will be taking place in an environment where there has already been a deluge of audits conducted;
- The instruments were built on the assumption that the same concept of good governance as used in the corporate sector can be imposed onto the Public HEIs;
- There are challenges in getting the Public HEIs themselves to understand the necessity for evaluating their internal system in order to measure the readiness level of their governance system to implement autonomy;
- Central agencies have to be convinced that the instruments are capable of measuring the governance system of the Public HEIs to ensure that integrity, responsibility and accountability will be practised;
- The differences in how autonomy is interpreted by the Public HEIs and by the government must be managed wisely. There is a tendency for the Public HEIs to equate autonomy with its western conception as it is perceived to be more attractive and fashionable. On the other hand, defining autonomy in terms of government funding is a challenging endeavour as it appears to run counter to the general expectations about how a government and a university in a country with a mature higher education system should relate with each other;
- Autonomy is often defined by universities and their academic staff as the freedom to use grants as they see fit for the advancement of academic matters, sometimes without considering whether such spending is efficient use of funds; and
- Universities may neglect the fact that as public institutions, their actions will bear implications on the government and the people. The interests of the government and the nation must be protected at all times.



Phase 2 Focus

In Phase 2, the Governance CAP team will be drafting an implementation strategy and targets based on the minutes of the meeting of the Cabinet with regard to the Implementation of Autonomy in the Public HEIs, dated 22 September, 2010.

The Governance CAP will take into consideration the speech given by the Prime Minister during the presentation of the Tenth Malaysia Plan (10MP) in Parliament on 10 June, 2010, with regard to the government's commitment towards granting autonomy to the Public HEIs based on the values of transparency and accountability in order that the Public HEIs may achieve excellence on par with the best universities in the world. The Prime Minister had stressed four areas of autonomy: the institutions of governance, finance and wealth generation, human resources, academic management and student admission.

In Phase 2, strategic objectives were drafted towards achieving the target set by the government. The Governance CAP team will be implementing the following from 2011 through 2015. Among them are:

- A pilot audit to test the CUGG and UGGI in three Public HEIs;
- Activity-Based Costing (ABC) system or its equivalent to assist in managing decision-making related to finance management;
- The CUGG and UGGI to be used for measuring readiness of the Public HEI's governance system towards autonomy in four areas – the institutions of governance, finance and wealth generation, human resources, academic management and student admission;
- Preparation and implementation of policies related to the implementation of autonomy that resulted from the Cabinet's decision in relation to the Cabinet's Autonomy Implementation Memorandum (MJM) dated 2 September, 2010; and
- Activities to implement and improve the Readiness Framework.

The implementation of autonomy is an important agenda of the Ministry which affects various parties and stakeholders. Hence, continuous support and commitment are much needed to ensure that the agenda are implemented. Among the factors crucial for success are:

- **Support from the top management of the Public HEIs/Ministry of Higher Education/Central Agency:**
Continuous commitment and support from the top management of the Ministry of Higher Education, the Public HEIs, and central agencies are needed to ensure that the policies related to autonomy that are drafted will be implemented;



- **Upholding of fundamental principles:**

Governance towards autonomy involves a high level of integrity and accountability on the part of the Public HEIs. The fundamental principles of the implementation of autonomy that have been agreed upon by the government should be adopted by the Public HEIs;

- **Public HEIs with a good system of governance:**

Autonomy involves the relinquishing of power by the Ministry and central agencies on matters overseen by the University Board of Directors (LPU). The LPU carries the heavy responsibility of ensuring that the universities' resources are managed with the utmost integrity and accountability. To be able to execute this responsibility, the Public HEIs must have a good governance system;

- **Effectiveness of the structure and human resources managing the Autonomy Agenda at the Ministry of Higher Education (MoHE):**

The implementation of autonomy in the Public HEIs involves a range of processes that include:

- o explaining to the Public HEIs the mechanism of preparing for the audit on Governance towards Autonomy;
- o drafting policies pertaining to autonomy;
- o conducting the readiness audit;
- o administering Ministry validation;
- o consulting with Central Agencies pertaining to policies towards full autonomy, or according to fields, etc.;
- o monitoring the governance system in the Public HEIs that has been given autonomy; and
- o evaluating the achievements of the Public HEIs that have implemented autonomy based on the identified criteria.

Therefore, the Ministry should provide the Public HEIs with appropriate structure and human resources that can successfully implement the autonomy agenda. This is important because desired results from the implementation of autonomy can only be accomplished if there is close cooperation between the Ministry and the Public HEIs; and



- **Readiness to accept change in Public HEIs and Central Agencies:**

The capacity to manage and accept change is an important consideration. The implementation of autonomy can be successful only when there is close cooperation among all the parties involved.

■ ■ ■ **Action Plan**

Strategy	Action plan	Outcome	Year
Developing the Foundations of Autonomy	Developing the Activity-Based-Costing (ABC) instrument to calculate the actual operating cost of running a programme	Preparation of the ABC instrument at UKM Testing of the ABC instrument at selected Public HEIs Implementation of the instrument in all Public HEIs	2011
Developing the Foundations of Autonomy	Conducting the pilot audit to test the CUGG and UGGI at UKM, USM and USIM (Decision made at the meeting of the PSPTN Steering Committee, no. 10/2010)	Implementation of the CUGG and UGGI audit instruments in all Public HEIs	2011
Finalising the Readiness Framework for Governance towards Autonomy	Conducting activities to finalise and implement the Readiness Framework	Dissemination of information on the Guide to Assessing Good Governance in Malaysian Universities and the Inter-Agency Main Committee Setting up of a mechanism for the preparation for governance audit towards autonomy at university level Setting up of a mechanism for the preparation for governance audit at MoHE level	2011 & 2012 2011 2011



Strategy	Action plan	Outcome	Year
Implementing Autonomy in the Public HEIs	Preparing policies relating to the implementation of autonomy arising from the Cabinet's decision with regard to the Autonomy Implementation MJM dated 22th September, 2010	Related Policies	2012 - 2015
Forging cooperation with central agencies	Consultation for full autonomy status with the Public HEIs that have fulfilled the autonomy readiness requirements	Consultations on the policies on full autonomy with the Inter-Agency Main Committee	2012 - 2015

CRITICAL AGENDA PROJECT LEADERSHIP

Introduction

The Critical Agenda Project for Leadership (Leadership CAP) was set up under the PSPTN to assist HEIs in strengthening institutional leadership to international standards. Leadership is one of the main institutional pillars apart from Governance, Academia, Teaching and Learning, and Research and Development. At the early stages, the Leadership CAP was chaired by the Public HEI Governance Division under the Department of Higher Education. As of September 2009, the Leadership CAP has been chaired and managed by the Higher Education Leadership Academy (AKePT).

AKePT was set up with the goal of fulfilling the aim of PSPTN, which is to transform the nation's higher education. AKePT's role is to strengthen the leadership of the Public HEIs in the areas of academia, governance, teaching and learning, and research, innovation and commercialisation, towards fulfilling the country's human capital development agenda. Three centres – the leadership training, teaching and learning, and research and innovation centres were set up under AKePT and they have since become the main focus of AKePT's training activities.



Phase 1 Status Summary

In Phase 1 (2007-2010), the Leadership CAP focused on four Strategic Objectives (SO) and five Key Performance Indicators (KPI). Phase 1 focused on training towards developing a talent pool and succession planning for leadership for academic and governance, teaching and learning, and research, innovation and commercialisation. The SO and KPI in Phase 1 emphasise the strengthening of AKePT as an organisation.

Overall, the Leadership CAP has achieved the KPI that has been set for Phase 1. The Leadership CAP's achievements are summarised as follows:

- 40% of the leaders of the HEIs have undergone training programmes that are in line with AKePT's Leadership framework;
- 12 Public HEIs have prepared succession plans;
- 17% of 210 leaders of HEIs have been profiled. The group of leaders that were profiled in 2010 were the deans;
- 78% of the 1035 Principal Trainers have been trained in AKePT's teaching and learning module; and
- 441 principal researchers have been trained in research, innovation, and commercialisation.

There is a need to broaden the concept of leadership such that it encompasses the various aspects of succession planning and its related competencies such as identification and selection, setting of criteria, determination of standards, measurement, evaluation and management.

As a strategic catalyst, AKePT seeks to accomplish the agenda of strengthening the nation's higher education by implementing programmes aimed at moulding the minds and building competencies in leaders and future leaders at all levels. These leaders are expected to become the change agents in the HEIs.

In leading the HEIs' leadership transformation agenda, AKePT aims to be the reference point and benchmark in the areas of leadership, teaching and learning, as well as research, innovation and commercialisation by producing courses on leadership in higher education that are more dynamic, progressive, and relevant. At the same time, the HEIs are expected to also contribute towards the upgrading of leadership skills in academia, governance, and student leadership in achieving the objectives of the Leadership CAP.

Phase 2 Focus

In Phase 2, the Leadership CAP focuses on the mechanisms for identification of talents, setting of criteria and standards, measurement, evaluation, and management of succession plans and talents. This is to ensure smooth succession and continuity of leadership in the HEIs. The focus is consistent with the aim of producing prominent leadership among the academic and non-academic staff towards developing an innovative and high-income society.

Among the factors critical to the success of implementing the CAP are:

- **AKePT Infrastructure**

The Leadership CAP possesses good potential for infrastructure development with the establishment of the AKePT campus in Bandar Enstek, Nilai. The facilities for administration, training and accommodation available at the campus enable planned training programmes to be carried out easily. With the development of the AKePT leadership training facility, constraints related to training costs, time, venue and management have been minimised.

- **Resource-talent group**

The Ministry plays a key role in supporting the HEIs transformation agenda through the implementation of PSPTN whereby the Leadership CAP is one of the PSPTN Critical Agenda Projects. AKePT, thus, is an important channel for the Ministry to steer the development of excellent human capital towards producing an innovative and high-income society.

Experienced and well-known experts from all HEIs have been invited to contribute their expertise to the Leadership CAP development programmes. These experts will also contribute towards efforts aimed at changing mind sets and empowering leadership, apart from providing consultation services in specific fields to the future leaders of academia and governance.

The talents generated through the programmes are capable of contributing to efforts to make the HEIs transformation agenda a reality, through collaboration at local, regional and international levels. The formation of this talent group will also stimulate the sharing of knowledge across HEIs.



- **Internationalisation**

AKePT serves as a vehicle for international networking in its effort to increase the internationalisation of the HEIs by developing collaborations with agencies such as SEAMEO-RIHED, World Bank, UNESCO and the EU. The aim of these collaborations is to obtain commercial funding, as well as expertise in leadership, teaching and learning, and research, innovation and commercialisation. Local and foreign expertise is mobilised and harnessed through the implementation of collaborative programmes.

- **Governance**

Efforts to strengthen the management of the HEIs will be implemented, among which will be efforts to improve the effectiveness of management services and the efficiency of financial management.

Leadership training programmes organised by AKePT and the HEIs for non-academic university staff will also be enhanced to produce HEI administrators who are capable of moving in tandem with the academic staff in supporting the national aspirations to place the HEIs amongst the best in the international arena.

Following the training of non-academic staff in efficient management and effective leadership provided by both AKePT and the HEIs, the non-academic staff are expected to adopt positive work values, and become more skilled, more proactive and dynamic. In the long run, this effort will inculcate a more productive work culture and diverse expertise among the staff. This will result in excellence in management and leadership within the HEIs, leading to the accomplishment of the objectives of the PSPTN.

- **Branding and Marketing**

In the effort to raise the status of the nation's HEIs to regional and international levels, activities related to branding and marketing of the institutions, as well as programmes carried out through publications and international collaborations with HEIs and other institutions should be intensified. Networking cooperation among local HEIs and international institutions to produce research, conferences and training programmes can enhance the reputation of the HEIs at the global level.

The cooperation given by local HEIs including the Public HEIs, Private HEIs, Polytechnics and Community Colleges through their participations in training programmes, seminars and conferences organised jointly by AKePT in collaboration with the academic experts and institutions at the international level will open more opportunities for local HEIs to build their networks and promote the institutions at the global level.



■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Empowering leadership in HEIs	Organising structured training programmes in leadership in governance, teaching and learning, and research, innovation and commercialisation for academic and non-academic staff	Development of Training Modules based on leadership levels	2015
	Creating a Structured Succession Plan for leadership in governance, teaching and learning, and research, innovation and commercialisation in the HEIs	A Standardised Structured Succession Plan	2012
		Profile of a pool of talented candidates	2013
	Completing the module and the training of Principal Trainers	Comprehensive module and training of Principal Trainers according to field	2011-2013
Increasing the number of key researchers as leaders in the research area	Leadership among key researchers	2015	

CRITICAL AGENDA PROJECT
ACADEMIA

Introduction

The success of a HEI is dependent upon the internalisation of academia's core values by each academic staff member. These values are fundamental in any effort that proposes to strengthen the academic staff, as well as the academic institution, towards becoming a world-class university. As such, the strategies and the plan for the implementation of the National Higher Education Strategic Plan (PSPTN) should be based on the core values of academia.



Academic excellence is an essential requirement for the success of the PSPTN. The ultimate goal of strengthening the quality of higher education is to produce a culture of excellence among the academics. The process of enculturation should be viewed as part of the process of developing the potential of individual academics and the institution towards a culture of excellence. In such academic culture, academics and the institution will uphold excellence in carrying out the core business of HEIs (teaching, research, and community service).

A continuous process of strengthening academia will produce more outstanding academics who will contribute to the accomplishment of the country's vision of becoming the leading hub for higher education in the Asia Pacific region.

Phase 1 Status Summary

The three key performance indicators (KPIs) for the Academia CAP have been established in the implementation of PSPTN Phase 1:

- Searching, selecting and retaining the best by increasing the number of outstanding foreign academics in the HEIs.
- Valuing outstanding and prominent academics by increasing the number of academics invited to provide consultancy services and their expertise in 'think tank' activities at national and international levels.
- Showing appreciation to prominent academics by ensuring that every HEI holds the Awards and Recognition for Outstanding Academics Ceremony on a yearly basis.

On the whole, the initiatives undertaken by the Academia CAP in Phase 1 of the PSPTN have achieved their targets. The number of excellent foreign academics and the number of academics who provide consultation services and expertise in 'think tank' activities at the national/international level have been reached and exceeded the targets set for 2010. The Awards and Recognition for Outstanding Academics Ceremony has been held by every HEI.

Phase 2 Focus

The importance of the Academia CAP in upholding the tenets of the New Economic Model (NEM) which emphasises the National Key Result Area (NKRA) and National Key Economic Area (NKEA) lies in the CAP's efforts to develop a sustainable higher education and strengthen the educational ecosystem. Academia is the backbone in these efforts to strengthen the national higher education system that will



enable Malaysia to achieve its mission of becoming the hub for education in the region. An academia operating in a culture of excellence will ensure that all activities will run smoothly and the implementation machinery in the HEIs will function at its best.

Phase 2 places emphasis on the process of upgrading academia at a more comprehensive level. Issues related to the development of human capital among the academics, importance of enhancement of integrity, professionalism and authority, polishing of leadership potential and boosting of academic excellence towards world-class status should be addressed through a dynamic process of strengthening the academic ecosystem.

To achieve the aims of the Academia CAP, emphasis should be given to building a framework to foster a close relationship among individual academics, academic professionalism and the academic ecosystem. This framework includes four components related to individual academics, three components to academic professionalism and five basic components related to the academic ecosystem as follows:

- **Academic**
 - Quality/Qualification
 - Expertise
 - National/international leaders
 - High impact contribution

- **Academic Profession**
 - Academic autonomy
 - Academic professionalism
 - Academic integrity

- **Academic Ecosystem**
 - Academic freedom
 - Culture of academic excellence
 - Team players
 - Knowledge sharing
 - Appreciation

HEIs should implement pragmatic programmes to achieve the strategic objectives of the Academia CAP. The outcomes for the CAP targeted up to the year 2015 are in line with the direction as stated by the Minister of Higher Education in his 2011 New-Year Mandate regarding academic and scholarship culture which includes the following components:



- Vibrant academic culture
- Diversified academic expertise
- Management of intellectual or academic talent
- Global recognition
- Development of thrust areas for teaching and research
- Academic leadership in the Asian region
- Intensification of contribution to the community and the nation
- Strengthening academic networking among universities
- Implementation of efforts to project the universality of the academic career through the academic mobility plan.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Retaining the best academic staff	Encouraging academics to be leaders at national/international levels through presentations of research papers at national and international levels	Increase in the number of academics receiving invitations to present papers at national and international levels	2011-2015
	Encouraging academics to be leaders at local, national and international levels through involvement in professional associations and other associations related to their fields of expertise	Increase in the number of academics who are experts/ advisers at the state, national and international levels	2011-2015
	Encouraging academics be leaders at national /international levels by expanding the academic mobility programmes through appointments of Associate Fellows and Attachments	Increase in the number of academics appointed as Adjunct Professors, Visiting Professors, and Officers in institutions within and outside the country	2011-2015
Strengthening the Autonomy, Integrity and Professionalism (AIP) of academics	Strengthening the AIP of academics through appreciation programmes, honouring and recognition of academic excellence by peers	Increase in the number of academics given awards at national and international levels	2011-2015



Strategy	Action Plan	Outcome	Year
Strengthening the Academic Ecosystem	Creating an environment of academic freedom by encouraging academic meetings in diverse areas of expertise in the quest for truth	Increase in the number of national and international academic meetings for different fields of study	2011-2015
	Promoting sharing of academic expertise among faculties/ institutions, universities and government agencies	A two-fold increase in the number of academics appointed.	2011-2015
	Strengthening teamwork spirit and fostering an environment of knowledge sharing	Increase in the number of publications produced in partnership and through teamwork	2011-2015
	Strengthening the academic reward system for all levels	Presentation of awards to outstanding academics in various fields and at various levels	2011-2015

CRITICAL AGENDA PROJECT TEACHING AND LEARNING

Introduction

The national mission announced by the Prime Minister on 31 March 2006 outlines five major thrusts that include increasing the knowledge and innovation capacity of the nation and developing a first class mind set. To ensure that the mission is achieved, the National Higher Education Action Plan (PSPTN) has outlined the objectives and targets to be achieved following quality improvements on teaching and learning endeavours.

To develop first class human capital, the curriculum at HEIs needs to be continuously improved in order to ensure that the curriculum is innovative, dynamic, up-to-date and relevant with market demands and current intellectual developments. Therefore, attention needs to be placed on support facilities and other ecosystem components such as teaching and learning infrastructure, teaching and learning methods and highly qualified and professional teaching staff in order to ensure that the teaching and learning process is implemented in the most effective manner.



In line with the second thrust of the PSPTN which aims to improve the quality of teaching and learning, the Teaching and Learning CAP team has identified the following five strategic objectives:

- To improve the quality of academic programmes.
- To ensure that the Generic Student Attributes (GSA) are achieved.
- To enhance the quality of lecturers in implementing teaching and learning activities.
- To enhance the quality of non-academic staff in supporting teaching and learning activities.
- To improve the quality of physical facilities that is conducive for effective teaching and learning.

Phase 1 Status Summary

Six key performance indicators (KPIs) were identified in the implementation of Phase 1 PSPTN for the Teaching and Learning CAP, and they are as follows:

- Percentage of final year student with a minimum average of 6 in the GSA system (My3S).
- Number of facilities at each HEI which is dedicated for Student Centred Learning (SCL).
- Number of lecturers with the ability to conduct at least one type of SCL.
- Number of programmes that adopts the SCL approach.
- Number of curriculum that was developed based on Outcome Based Learning.
- Number of non-academic staff attending training related to teaching and learning for at least 2 out of 7 training days in a year.

For Phase 1, the activities that were implemented by all 20 Public HEIs on the whole exceeded the targets set by the Teaching and Learning CAP team.

Phase 2 Focus

While tabling the New Economic Model (NEM) on 30 March 2010, The Prime Minister of Malaysia emphasised the need for continuous assessment and improvement of the education system in order to produce highly talented graduates equipped with strategic and creative thinking, and entrepreneurship skills that will propel the nation towards success in the next decade.



In order to achieve these aims, the quality of teaching and learning methods adopted must be improved by consolidating the action plan to improve the quality of teaching and learning programmes. Among initiatives in this direction are sharing of best practices among HEIs, working towards international recognition and ensuring that all HEIs have action plans to improve their SCL physical facilities.

At the same time, the Phase 2 Action Plan will also take into account the Implementation Plan for Development of Innovative Human Capital at Tertiary Level and the focus for NKEA.

The implementation of PSPTN Phase 2 will focus on achieving the following objectives:

- Increasing the students' GSA by the implementation of suitable methods;
- Strengthening lecturers' capacity in implementing SCL;
- Encouraging sharing of best practices on teaching and learning among HEIs;
- Improving the quality of programmes through innovative outcomes and international recognition; and
- Improving the knowledge of non-academic staff on teaching and learning processes.

The CAP target outcomes to be achieved by the final year of the PSPTN Phase 2, i.e. 2015, are as follows:

- 100% competent lecturers are able to implement SCL in teaching and learning activities;
- 100% new lecturers obtain higher education teaching certification;
- 100% graduates achieve a minimum score of 6.5 for every GSA element;
- Increase in the number of HEIs programmes that are internationally recognised; and
- 40% non-academic staff are given exposure to teaching and learning processes.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcomes	Year
Ensuring achievement of Generic Student Attributes (GSA)	Implementing suitable delivery methods to increase GSA among students	Increase in the number of first class honour students with a minimum average of 6.5 for all GSA elements in the My3S instrument	2011-2015



Strategy	Action Plan	Outcomes	Year
		Increase in the number of final year students with a minimum average of 6.5 for every GSA element in the My3S instrument for three HEIs programmes (Science, Humanities and Technical) that are relevant to the following NKEA clusters: <ul style="list-style-type: none"> o Hospitality and Tourism o Islamic Business and Finance o Advanced Engineering, Science and Innovation o Health Sciences 	
Ensuring achievement of Generic Student Attributes (GSA)	Managing My3S implementation for all final year students in HEIs	Increase in the number of final year students who adopt the My3S system to assess the minimum score of 6.5 for all GSA elements	2011-2015
	Manage implementation of GSA time-based analysis for the 2011/2012 new student intake at three intervals: September 2011 as the initial assessment, semester four as the mid assessment and semester eight as the final assessment	Increase in percentage of student involvement in the MY3S	2011-2015
Improving lecturers' quality in implementing teaching and learning activities	Conducting training directed towards strengthening lecturers' capacity in conducting SCL	Increase in the number of *SCL Trainers at each HEIs (* SCL refers to PBL, Case Study, PoPBL)	2011-2015
	Sharing of teaching and learning best practices among HEIs	Increase in the number of seminars/workshops/forum on exchange of teaching and learning best practices	2011-2015
Improving the quality of academic programmes	Identifying curriculum in various fields of study in HEIs as benchmark programmes	Increase in the number of benchmark programmes	2011-2015



Strategy	Action Plan	Outcomes	Year
	Producing innovation in teaching and learning based on SCL	Increase in the number of publications/instruments related to innovative SCL	2011-2015
	Identifying potential programmes for international accreditation	Increase in the number of programmes that are accredited by international professional bodies	2011-2015
Improving quality of non-academic staff on teaching and learning processes	Organising courses related to teaching and learning processes for non-academic staff	Increase in the number of non-academic staff who have attended at least 2 out of 7 days training on courses related to the teaching and learning processes	2011-2015

CRITICAL AGENDA PROJECT
RESEARCH AND DEVELOPMENT (R&D)

Introduction

Local HEIs play a major role in the mobilisation of activities in research, development and commercialisation, while academics in various fields of expertise are the leaders in the exploration of ideas, concepts or theories that form the basis of new discoveries, development of knowledge and current advanced inventions.

The R&D CAP was created to:

- increase R&D activities in the HEIs in order to increase revenue in intellectual properties and R&D products that can be commercialised;
- contribute to the formation and discovery of new knowledge, and creative and innovative activities;
- produce creative, innovative and skilful human capital with a pioneer mind set in order to offer relevant contributions towards the generation of national wealth and the wellness of the people;
- produce a number of excellent researchers in the acquisition of fundamental knowledge and translate it in line with the needs of the country; and
- boost the capacity of HEIs in conducting research and produce research outputs capable of competing at the regional level.



The success of R&D is seen as extremely critical in improving the quality of higher education based on the following three factors:

- to produce intellectual properties and commercialised revenues needed to propel the nation to a higher level in the global value-added network and create new employment opportunities;
- to create and disseminate knowledge and translate the knowledge into **tangible products (that can be appreciated and measured)** and **intangible products (that cannot be appreciated and measured, such as moral values)** to enable Malaysia to be a premier hub for higher education; and
- to develop the necessary human capitals to continuously promote innovation in all economic sectors.

Phase 1 Status Summary

Under the 9th Malaysian Plan (9MP), the original amount of RM200 million of the Fundamental Research Fund was increased to RM315 million after an additional allocation of RM115 million was awarded in 2010. The additional allocation allows for more vigorous research activities to be conducted at HEIs. Currently, fundamental research involves all the 20 Public HEIs, 40 Private HEIs, and the 5 Branch Universities in Malaysia.

In 2010, five Public HEIs succeeded in being recognised as Research University (RU). Based on the results of the Research University Audit conducted in 2010, four RUs, which are University of Malaya (UM), Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM) and Universiti Putra Malaysia (UPM) managed to maintain their accreditation. Effective from 21 July 2010, Universiti Teknologi Malaysia (UTM) also succeeded in being recognised as a new RU.

Among the issues in the project implementation identified are as follows:

- lack of resources or support to build a number of researchers (critical mass) needed in R&D and commercialisation;
- lack of confidence in government agencies and private sectors on the ability of university researchers in handling/completing research or consultancy projects;
- the existence of local industries (including SMEs) that are only interested in producing low-tech products and processes and are more inclined to buy technology due to their lack of interest in doing R&D;



- lack of appreciation in the culture of research among local industries (fewer units/ divisions/ departments that are dedicated specifically for R&D);
- lack of awareness on the role and relevance of innovation with the competitiveness in the industry itself which had led to some implementations lacking emphasis on R&D aspects;
- innovation ecosystem in Malaysia that is less dynamic;
- lack of specific mechanism to manage the production of R&D products leading up to commercialisation;
- lack of experts in the field of commercialisation among the Public HEIs;
- the perception that Malaysia is no longer considered as a developing country affects the provision/offer of international research grants.
- discrepancies in the objectives between the researchers (which is for knowledge generation) and the private sectors (which is profit oriented);
- lack of experience and exposure to industries and methods of obtaining international funding among researchers; and
- delay in relaying information about international grants to universities and researchers.

Among the actions taken to address the issues of implementation are as follows:

- organising continuous discussion sessions through meetings and workshops involving various related parties such as the panel members of commercialisation, Research Management Centres (RMC) of HEIs and the Project Management Office (PMO) of the Ministry;
- implementing the promotion of R&D products of HEIs through election by the Product Commercialisation Advisory Panel;
- implementing promotional programmes for potential R&D products through print media, electronic media and the exposition of R&D products of the HEIs;
- providing business matching programmes (for example: PECIPTA) and value pitching with international parties such as International Stanford Research Institute (SRI) and local industry panels; and
- inducing strong human resource development in line with the national agenda by using tools such as Scival Spotlight or Incites.



Phase 2 Focus

In the 10th Malaysia Plan (10MP), the focus of the R&D CAP is to solidify the objectives for Phase 1 and boost the research level of Phase 2 through these approaches:

- promoting pioneer mind set among researchers;
- conducting innovative research in line with the needs of the country;
- translating fundamental discoveries to produce tangible product or technology platforms that can be commercialised; and
- enriching knowledge repository

To strengthen Phase 1, the Government has approved a provision of RM741 million to MoHE to enhance R&D activities, particularly for fundamental research projects in HEIs. The approved provision consists of three parts: Fundamental Research Fund, seven High Impact Research platforms and Research Incentives.

The fundamental research funds in the 10MP which is during Phase 1, has increased over 100% compared to the RM200 million provisions received in the 9MP. Under the 10th Malaysia Plan, the fundamental research fund is divided into four schemes: Fundamental Research Grant Scheme (FRGS), Exploratory Research Grant Scheme (ERGS), Long-term Research Grant Scheme (LRGS) and Prototype Research Grant Scheme (PRGS). Seven High Impact Research platforms were identified as niche areas to mobilise expertise and encourage collaboration among HEIs and these areas include:

- global warming;
- infectious disease;
- tropical medicine;
- water and energy security;
- food security;
- Information and Communication Technology (ICT); and
- advanced and value added manufacturing.

Apart from these seven niche areas, the field of renewable energy and energy conservation would be addressed as both of these areas are among the important agenda of the Government in the 10MP. In April 2011, both bills for Renewable Energy and Energy Conservation were presented in the Parliament.

To encourage research activities and additional funds from external sources (international and private), research incentives should be created for researchers and research groups. Furthermore, the additional



fundamental research funds and research incentives are expected to assist in achieving the targets set for Phase 2.

There is also a need to intensify activities related to the commercialisation of R&D products which include promotional aspects through electronic media, print media and exposition. Promotional activities or expositions that provide business matching opportunities between the university and the industry should also be intensified. The possibility of engaging consultancy services from external agencies such as SRI International to educate local researchers about the commercialisation strategies for R&D products produced by HEIs can be taken into consideration.

With regard to RU performance, all RUs involved will be monitored periodically based on the financial report of the funds allocated to them and the impact of the research and the presentation of the achievements of the five RUs.

In the meantime, the well-being of the nation in the 10MP, which is driven by human capital with a pioneer mind-set in HEIs and innovative production in R&D activities, can make the New Economic Model a reality with the following outcomes:

- RM47.5 million in research funds from international and private sectors;
- provision of RM300 million for Fundamental Research Fund;
- commercialisation of at least 5% from all efforts;
- recognition of six RUs; and
- increase in the number of indexed journals published by the HEIs to 60, intellectual property to 1000, publications to 9000 and cumulative citations to 9000.

An ethical competitive research culture is a critical factor to the success of the R&D CAP. The culture of excellence in the acquisition of knowledge through research findings can help increase international and private sector funds, as well as funds for fundamental research.

Fundamental research in HEIs has undergone three phases of acculturation. The first phase which started in the beginning of the year 2006 and lasted in 2008 is known as the phase of increasing the research culture. Researchers in HEIs are currently given exposure and opportunities to conduct fundamental research. The period between 2009 and 2010 is known as the phase of cultivating research quality. The provisions for fundamental research fund were made stricter by selecting research projects with the highest quality that can impact the country. The third phase between 2011 and 2012 is referred to as the phase of promoting excellence in research by collaborating at the internal level to allow for further competitions at the global level.



The next critical factor is related to the lack of understanding on the commercialisation strategies of R&D products among researchers in HEIs. In addition, researchers are more focused on publication outcomes rather than on the commercialisation of their R&D products. In 2011 and 2012, more exposure on intellectual properties and research will be given to researchers as a move towards increasing commercialisation. This will be supported by the available PGRS Grant which will further strengthen the innovation system of the country.

To ensure the smooth running of research activities, the Cabinet has agreed that a management provision of RM128 million is channelled to RUs every year.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Increasing commercialisation of R&D of HEIs	Promoting and publicising R&D research products from HEIs and increasing commercialisation knowledge among researchers.	Increase in total revenue generated from commercialisation of R&D products from HEIs	2011–2015
Increasing the total of research funds from international and private sectors	Promoting and publicising research funding opportunities to HEIs	Increase in funds from international and private sectors	2011–2015
Recognising a number of HEIs as Research Universities (RUs)	Increasing the number of grants that can be applied	Increase in the number of RUs	2011–2015
Increasing fundamental research funds	Increasing fundamental research funds to inculcate R&D culture, increase R&D quality and promote excellence in research	Increase in fundamental research funds	2011–2015
Increasing knowledge repository in order to compete at the regional level.	Providing incentives to lecturers who publish articles in the top 10% of indexed journals (Tier 1) according to field		



Strategy	Action Plan	Outcome	Year
Publication	Inducing the strength of human resource development through superior publication in competitive disciplines in order to assist the national agenda by using methods such as Scival Spotlight or Incites	Increase in journal publications	2011–2015
Intellectual Property (IP)	Providing exposure on IP Conduct strategic research towards commercialisation that is capable of generating IP	Increase in the number of IPs filed	
The Malaysian Journals owned by HEIs that have been indexed	Providing incentives to editorial council in order to boost the indexing of journals owned by HEIs	Increase in the number of journal publications	

CRITICAL AGENDA PROJECT INTERNATIONALISATION

Introduction

Internationalisation is the fifth thrust of the National Higher Education Strategic Plan which aims to elevate HEIs towards becoming institutions of world repute. The target of this thrust is for Malaysia to become an international hub of excellence for higher education by the year 2020. One of the approaches is to accentuate the Education Malaysia brand, formerly known as Malaysian Student Department (MSD), in all marketing activities overseas. In addition, internationalisation programmes such as the exchange of academic staffs, students, study programmes and international collaboration serve as catalyst to enrich interaction, experience and exposure of students from local HEIs into the global arena.



The purpose of establishing the Internationalisation CAP is to ensure that the national aspiration to be the leading centre for higher education is achieved through the implementation of activities and the monitoring of internationalisation performance of local HEIs. The quality support services at the ministry level should be given full attention so that the government's desire to make Malaysia an international centre for higher education can be achieved.

Phase 1 Status Summary

Phase 1 in the implementation of the Internationalisation CAP focuses on the basic placement to attract international students' admission through the implementation of the following strategies:

- increasing participation in international marketing and promotion programmes overseas via websites, international exhibitions and other channels;
- enriching students' learning experience;
- increasing the number of academic staff, enhancing international networking and competitiveness of academic staff;
- increasing the G2G (Government to Government) international collaboration network and between institutions, bilaterally, multilaterally, etc.;
- intensifying efforts to attract quality international students; and
- increasing the number of internationally recognised academic programmes.

The admission of international students to local HEIs has recorded an increase each year, as shown in the following table:

YEAR	Public HEIs	Private HEIs	TOTAL
2007	14,324	33,604	47,928
2008	18,495	50,679	69,174
2009	22,456	58,294	80,750
2010	24,214	62,705	86,919

*source:

2007 Data: MoHE Portal

2008, 2009 Data: Book of Statistics, Ministry of Higher Education (2009)

2010 Data: MyMoHES, Data and Information Centre

According to the “Global Education Digest 2010” UNESCO, Malaysia has become the first choice of destination for students from Sudan, Yemen, Maldives and Somalia in 2009. On the average, about 70% of international students further their studies in Private HEIs. As a whole, the admission of international students contributed approximately RM2.6 billion to the national income in 2010.

The recruitment of international academic staff also showed an increase, as shown in the following table:

NUMBER OF INTERNATIONAL ACADEMIC STAFF IN HEIs

YEAR	Public HEIs	Private HEIs	TOTAL
2007	1,376	1,027	2,403
2008	1,634	1,261	2,895
2009	4,605	1,403	6,008

*source:

2007 Data: MoHE Portal

2008, 2009 Data: Book of Statistics, Ministry of Higher Education (2009)

Among the challenges faced are:

- The recruitment of quality international students in HEIs and the administration and management of international student affairs.

Recommendations:

- o Efforts should be intensified in implementing of Phase 2 to attract quality international students who are sponsored by agencies/foreign governments.
- o Support services for international students in HEIs should be strengthened and should be based on internationalisation policies.
- o Establish a mechanism to monitor the existing international students.
- The recruitment of international staff as there is a lack of outstanding international staff in HEIs.



Recommendations:

- o To establish a more attractive remuneration package.
- o Increase in promotion, marketing and participation of higher education sectors in international marketing and promotion of local programmes overseas; for example, through the launch of Education Malaysia.
- Funding constraints in the implementation of students and staff mobility programmes, participation of marketing programmes overseas and payment made for the audit process to international professional accreditation agencies.

Recommendations:

- o Mobility programme sponsorship for students and academic staff.
- o Provisions for an initial fund to fuel the involvement of students and staff in mobility programmes.
- o Centralised budget allocation for the audit process among HEIs.
- The international collaborative network for local and foreign higher education sectors that was initiated should be beneficial not only to the HEIs but also for staff and students development in HEIs

Recommendations:

- o More initiatives in Phase 2 should be mobilised to increase the collaboration of local and foreign HEIs in programmes such as industrial internship and student and academic staff mobility (short and long term).

Phase 2 Focus

The success of the Internationalisation CAP by the year 2015 depends on the following factors:

- Higher education global scenario:
 - o Increase in student and staff mobility;
 - o The privatisation of higher education sector;
 - o Commercialisation and increased collaboration between HEIs and industries; and
 - o The ranking of HEIs based on global rating.



- The focus of the national higher education sector to:
 - o generate revenue through international student enrolment;
 - o ensure the quality of academic programmes in HEIs; and
 - o strengthen the HEIs' regional and global network in terms of teaching and learning, as well as in terms of research.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Increasing the visibility of the Malaysian higher education sector overseas	Establishing close cooperation between MoHE and HEIs to promote and market local programmes overseas	Increase in HEIs' participation in international exhibitions	2011–2015
	Expanding the collaboration network between Malaysian and foreign higher education sectors	Increase in the number of collaborative programmes between local and foreign HEIs	2011–2015
	Establishing HEIs' academic centres abroad to conduct teaching and learning and research activities	The existence of academic centre overseas owned by RUs for academic purposes and the marketing of HEIs	2011–2015
	Organising international and high impact conferences involving ministers of higher education and key decision makers	Increase in recognition of strategic partnership with foreign countries and international agencies, including recognition towards the capability and contribution of the national higher education sectors at the international level	2011–2015
Gaining international recognition for the quality of Malaysian higher education sector	Working closely with international professional bodies to obtain accreditation of academic programmes in local HEIs	Increase in the number of programmes recognised at international level	2011–2015
		Increase in the number of quality international students in local HEIs	



Strategy	Action Plan	Outcome	Year
Enriching students' learning experience	Encouraging participation of local HEIs students in outbound mobility programmes	Increase in the number of students involved in mobility programmes	2011–2015
	Establishing close cooperation between local and foreign institutions in organising inbound mobility programmes		
Enriching international experience of local staff in HEIs	Increasing the recruitment of international academic staff	Increase in percentage of international academic staff	2011–2015
	Increasing academic staff mobility	Increase in the number of academic staff involved in mobility programmes	2011–2015
Increasing positive experiences for international students	Encouraging interaction between international students and the local community	The involvement of international students with community programmes	2011–2015
	Soliciting feedback from international students on their experience in Malaysia		

CRITICAL AGENDA PROJECT INDUSTRY-ACADEMIA

Introduction

Industry is defined as an external organisation of universities which includes the public and private sectors as well as the profit and non-profit based of non-governmental bodies. Industry-University relationships or partnerships are especially important for higher education policy makers at both the government and university levels. In the context of knowledge based economy (k-economy), the role played by HEIs as the strategic implementer of economic development is becoming increasingly important. The industry-academia relationship includes various aspects of teaching and research including industrial training for students, industrial attachment for lecturers, consultancy activities, continuous professional development, collaborative research and development, and also the development of small and medium entrepreneurs. In line with the current development, new government policies such as 10MP, NEM and ETP and also NKEA should be taken into consideration to ensure continuity in implementing phase 2 Industry-Academia CAP, which covers the period between 2011 and 2015.

HEIs should play an important role in providing the market with knowledgeable and skilled workers and should regard the industry as an 'input' source to produce education programmes and research products that are relevant to current developments and trends so that the graduates produced are ready for the market and could readily seek employment. Established cooperation with the industry can also help HEIs to acquire contributions and enhance income generation by the HEIs.

Phase 1 Status Summary

Throughout 2010, various programmes had been implemented to introduce, discuss and meet the Industry-Academia targets set by the respective universities; for example, the National Industry-Academia CAP Workshop in April 2010. Representatives from the industry, together with academic members, deliberated on the role of Industry-Academia from the perspective of the industry. The "Launching of Plans to Strengthen University-Industry Cooperation and Cluster Programme" was launched in July 2010 they were designed to achieve the goals of improving the quality of teaching and learning, increase graduate

employability, increase the yield of technology and research commercialisation and raise the income for universities and industries.

On the whole, the Industry-Academia CAP showed a positive increase compared to the year 2009. In 2010, the total consultation projects (RM) obtained from the industry is RM119,008,933.22 and the contribution (RM) from the industry to the university is RM48,256,441.67. A total of 454 academic staff had attended industrial attachment programmes throughout 2010, an increase of 342, compared to the year 2009 (including the number of academic staff on sabbatical leave at other institutions). The number of industrial personnel involved in academic related activities also showed a positive increase, from 1,409 people in 2009 to 2,577 people in 2010.

Phase 2 Focus

In Phase 2 (2011-2015), the Industry-Academia CAP will focus on the following implementation activities and their related outcomes:

- strengthening and increasing the participation of industries in existing activities implemented by all universities towards achieving the CAP strategic objectives.
- expanding and enhancing the university-industry collaboration of "cluster-consortium-



based” programmes in university-industry related activities;

- promoting expertise from the university to the industry and vice versa through the development of databases; and
- enhancing industry-driven innovations (in the curriculum, teaching and learning, and R&D).

The activities planned for Phase 2 to achieve the KPIs of the Industry-Academia CAP should consider current development and recent government policies such as 10MP, NEM and NKEA which, apart from education, include the following areas:

- Oil and gas
- Palm oil and related products
- Financial services
- Wholesale and retail
- Tourism
- Information and Communication technology
- Electrical and Electronics
- Business services
- Private health care
- Agriculture
- Greater Kuala Lumpur

The NEM place great emphasis on the mobility programme between industries and universities. This programme can be implemented through the exchange of academic staff and also through the academic attachment scheme.

Based on the University/ Industry/ Community Collaboration Strategic Strengthening Plan, seven frameworks have been developed by the Ministry of Higher Education (MoHE):

- industrial training mechanism for high-end industries;
- industry-academia attachment framework;
- work rate framework and consultant procurement framework;
- academia recognition and reward system framework;
- branding and university research and product marketing expertise framework;
- Knowledge Transfer Partnership programme framework; and
- University-industry consortium cluster collaboration programme framework.



The targeted outcomes for the Industry-Academia CAP by 2015 are as follows:

- the revenue from consultation services in universities is at least 10% of the management expenses;
- each university receives an average of RM100,000 per year, or an overall amount of RM500,000 in contribution from industries (excluding research grants and consultations);
- at least 30% of academic staff had undergone industry attachment; and
- for each study programme offered, there should be at least three kinds of involvement by the industries every year.

Taking ETP and NKEA into consideration in determining the direction of Phase 2 of the Industry-Academia CAP, the critical success factors are identified as follows:

- sharing of industry and university experts;
- industry-class laboratory utilities and sharing of industry facilities and infrastructure;
- academic system that supports direct involvement of industries; and
- a flexible academic system that allows addition of subjects/elective courses in the curriculum design/courses suited to industrial needs, when necessary.



Action Plan

Strategy	Action Plan	Outcome	Year
Improving Industry-Academia relations	Intensifying industry consultation activities	<ul style="list-style-type: none"> • Increase in income generation from consultancy projects • Increase in transfer of practical knowledge to teaching and learning • Increase in student exposure to actual industrial projects 	2011–2015
	Increasing the monetary/ non-monetary (RM) contribution from industry to university	<ul style="list-style-type: none"> • Increased monetary (RM)/ non-monetary contributions from industry to university • Increased quality of teaching and learning and research 	2011–2015



Strategy	Action Plan	Outcome	Year
	Encouraging academic staff to undergo industry attachment programmes	<ul style="list-style-type: none"> • Increase in the number of academic staff in industry attachment programmes • Increase in quality of teaching, learning, research and consultation • Increase in smart partnership between university and industry 	2011-2015
	Involving industrial employees in academic related activities	<ul style="list-style-type: none"> • Increase in the number of employees from the industry in academic related activities • Increase in quality of teaching, learning, research and consultation • Increase in smart partnership between university and industry 	2011-2015
Improving Academia-Community relations	Intensifying participation and academia recognition of the community	<ul style="list-style-type: none"> • Increase in the number of academia-community projects • Increased contributions (RM) 	2011-2015

CRITICAL AGENDA PROJECT
GRADUATE EMPLOYABILITY

Introduction

The future of a nation's progress is highly dependent on the efforts of all parties in producing human capital that is skilful, competitive and that has high added-value which will contribute to nation a stable economic growth. Therefore, MoHE places great important building while ensuring on the quality of graduates produced by both public and private HEIs. MoHE is also constantly trying to enhance the quality of graduates so that they can contribute to the nation's economic transformation plan.

Every HEI plays an important role in producing competent graduates who are ready to be placed in the employment sector, either locally or internationally. Issues connected to the job availability for graduates are always closely related to the employability and skills of graduates. Recognising this, MoHE has taken several strategic steps to ensure that the graduates produced by HEIs in this country have the quality and characteristics needed by the job market. In addition to providing higher education opportunities to qualified groups, MoHE is also responsible for ensuring that every graduate produced has a high marketability and employability value.



To achieve this aspiration, MoHE has placed graduate employability as one of the Critical Agenda Project in the National Higher Education Strategic Plan (PSPTN) in 2007.

Phase 1 Status Summary

The implementation of PSPTN Phase 1 looks at the efforts of laying the basis of several programmes for the purpose of achieving the transformation direction for higher education. For the Graduate Employability CAP, the implementation of PSPTN Phase 1 looks at the indicators to assess the employability of graduates and the target percentage to be achieved. The focus area of CAP in the implementation of PSPTN Phase 1 is to enhance graduate employability by ensuring that at least 75% of graduates are employed within 6 months after graduating.

To continuously review the placement of graduates in the job market, MoHE has set up an appropriate and versatile measuring system to conduct a survey on graduates who will be graduating in HEIs in the country. The Graduates Tracer Study System has been implemented since 2006 and it supplies facts and information about the status and employment of new graduates. The Graduates Tracer Study is an annual study to detect the graduates' first employment prior to their convocation, which is usually within three to six months following completion of their studies. The objectives of the study are to determine graduate employability and marketability, to obtain graduates' views and perceptions towards academic programmes, study systems and infrastructure facilities in their respective HEIs and to create a database for university graduates.

The percentage of graduate employability has reached and exceeded the target of 75% from the year 2008 until 2010. In 2010, the achievement of graduate employability at MoHE level was 75.4%. This percentage includes all graduates produced by Public HEIs, Private HEIs, Polytechnics and Community Colleges.

In terms of graduate employability for each Public HEIs, the percentage of achievement differs from one institution to another. At the end of 2010, a total of 19 HEIs were involved in the statistical calculation of Graduate Employability CAP and only one public university, Universiti Malaysia Kelantan (UMK) had yet to produce any graduates in 2010. In general, universities with research university status have the percentage of graduate employability which exceeds 75%. The graduate employability achievement of Universiti Pendidikan Sultan Idris (UPSI) is 96.5% as the majority of the graduates are absorbed as teachers upon completion of studies. For universities in the Comprehensive and Focus category, the data showed achievement at an approximation of between 50% and 70%.

Graduate employability is influenced by factors, such as the type of university and the field of study chosen by the graduates. For the more established universities in this country, the target of 75% may be



achieved with the presence of factors such as better education facilities, experienced teaching staff, field of study offered, relations with industries, etc. In general, the percentage of graduate employability is reflected in the capacity and capability of a university in producing graduates capable of improving the employability value of that university.

Throughout the implementation of Phase 1, a number of issues were identified:

- Data for the Graduate Tracer Study was obtained in a short period of time; i.e., around three to six months, which is the period between the completion of study and the convocation ceremony. This short period is not an accurate indicator in providing a true picture of the graduate employability level.
- The cost of implementing programmes that enhance graduate employability such as Finishing School, Bridging the Gap and Apprenticeship is high and requires a substantial financial allocation from the government. Some industries consider the government as the body responsible to finance these programmes, and they are not willing to share the cost.

Phase 2 Focus

Institutions of higher education plays an important role in the production of highly skilled human capital capable to create, innovate, produce and initiate new knowledge, as well as develop and apply technology to ensure that a high rate of graduate employability is achieved in the country.

In general, the critical success factors of Graduate Employability CAP is related to the factor in determining the aspiration and direction of various policies which include Vision 2020, 1Malaysia Concept, Government Transformation Programme, Economy Transformation Programme, 10MP and the National Higher Education Strategic Plan itself. Among those identified are:

- Governance: transparency, responsibility, integrity, autonomy and accountability (Professional Academic Integrity);
- Culture: excellence in higher education, high performance, competitiveness;
- Infrastructure: physical R&D facilities, conducive environment for teaching and learning; and
- Resources: Financial resources, committed and quality human resources, world and national economic development, human capital demands from industry, provisions for implementing efforts to improve graduate employability.



Specifically, PSPTN acknowledges the need for the curriculum provided by HEIs to be consistent and in line with global market needs in order to produce high quality graduates who are employable. The critical success factors are based on:

- the involvement of the industry in shaping the curriculum to improve graduate employability in terms of skills and job fit.
- the ability of HEIs to adopt the most effective teaching and learning methods in assuring the stakeholders of the quality of higher education.

The willingness of the industry to share the costs and provide high-skilled training to fulfil the demands of future technology in order to spur the nation's economic growth is crucial in ensuring the success of this agenda.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Improving graduate employability	Improving Generic Student Attribute (GSA) through pre-graduate programmes such as Finishing School, Internship and Entrepreneurship and post graduate programmes such as Apprenticeship, Bridging the Gap, Job Placement: Career Excel, Structured Internship, Degree ++, etc.	85% of overall students achieve a minimum score of 6.5 in the My3S instrument.	2011-2015
	Implementing Graduate Internship Programmes for high-end industries	Increase in the number of graduate pool of talent that succeeded in securing strategic positions in high-end industries.	2011-2015
	Expanding the Tracer Study measurement		
	Strengthening industrial training for students as outlined in the Industry Training Policy	Increase in the number of study programmes that offer industrial training to students.	2011-2015



PRIVATE INSTITUTIONS OF HIGHER EDUCATION

Introduction

Quality human capital is a major prerequisite to ensure continuity in the development of the country. Towards this end, such duties and responsibilities are also borne by private HEIs in the country. Two thrusts outlined in the National Higher Education Strategic Plan (PSPTN) focused directly on the roles to strengthen institutions of higher education and to manage access and equity.

At present there are 452 registered and active private institutions offering various programmes of study at Certificate, Diploma, Bachelor, Masters and Doctorate levels. Of these, 23 Private HEIs are of University status, 21 University Colleges and 403 Colleges, while five others are foreign university branch campuses. As of December 2010, 8114 programmes have been approved by the Department of Higher Education, Ministry of Higher Education, to be offered at private institutions, of which about 59% have fulfilled MQA requirements and have been accredited. In addition, from December 2010, these Private HEIs, with the strength of 25 486 trainers, have been providing opportunities for 408,034 students to further their studies at various levels of study. From this number of teaching staff, 55.1% of them possess Master degree and PhD or other equivalent qualifications. With the capacity of space and existing trainers, private institutions currently have a student enrolment at Master's and PhD levels totalling 24,468, or about 6% of the total enrolment in private institutions.

Phase 2 Focus

Private HEIs will continue to play a role in providing educational opportunities in the country. Apart from providing educational opportunities, the quality of education will continue to be the main agenda of the implementation of PSPTN Phase 2. To this end, several strategies have been formulated to achieve the goal.

- Access to Higher Education

The rapid growth of Private HEIs has improved access to higher education for Malaysians. This lays a strong foundation towards achieving the aspirations of the country to allow at least 50% of its population, particularly for the cohort aged 17 to 23 years, to receive higher education by the year 2015. By providing admission to various fields of study by private institutions contribute towards education democratisation by increasing the number of Malaysians gaining access to the highest level of education of his choice and according to his capability.

To achieve the goal of enhancing the level of access to private higher education, the following



strategies are proposed for the next five years (2011-2015):-

- o Increasing the number of places in private institutions based on a three-tier system that includes studies at certificate, diploma and degree levels:
 - ❑ encouraging existing private institutions to increase admission;
 - ❑ upgrading private colleges to university colleges or private universities;
 - ❑ strengthening existing distance education programmes (PJJ);
 - ❑ expanding enrolment through open entry at private institutions that offer courses on-line; and
 - ❑ encouraging private institutions to implement new courses that meet the country's current human resource needs of the country.

- o Promoting lifelong learning:
 - ❑ enhancing advanced learning opportunities in the form of in-services training and retraining, particularly of hands-on opportunities;
 - ❑ creating advanced academic learning opportunities at diploma, degree and post-graduate level through Distance Learning programmes and part-time studies;
 - ❑ providing more open and flexible conditions of admission to private institutions through credit transfer system from one private institution to another and from non-university private institutions to university colleges, foreign university branch campuses and private universities; and
 - ❑ expanding student enrolment through "open entry".

- Quality of Private Higher Education

The Private HEIs CAP ensures that all courses offered by private institutions are of quality and capable of earning international recognition. This is to ensure that the graduates produced are knowledgeable, skilled and competent and have the ideal personal characteristics to meet the demand of the nation's workforce. These efforts will be implemented based on the following strategies:

- o Strengthening the monitoring and regulation mechanisms of private institutions:



- ❑ prepare and update the quality checklist based on the law and benchmarking features of the world's leading Private HEIs
 - ❑ supervise and evaluate Private HEIs efficiently and quickly for compliance with the laws and regulations;
 - ❑ providing a rating of Private HEIs;
 - ❑ implementing SETARA and MyQUEST audits on all private institutions to assess the level of their quality; and
 - ❑ evaluating the provisions of Act 555 related to monitoring and regulation.
 - o Ensuring that Private HEIs have complete facilities that are of quality:
 - ❑ ensuring that all new and existing Private HEIs that have applied to expand their educational courses have a permanent main campus, as well as complete support facilities and infrastructure;
 - ❑ ensuring that all Private HEIs offering diploma onwards are accredited to ensure that their teaching and learning facilities are complete; and
 - ❑ encouraging the consolidation of small Private HEIs to maximise the use of common facilities.
 - o Ensuring that the teaching force in Private HEIs is of quality and adequate:
 - ❑ ensuring that private institutions have adequate and qualified teaching staff to deliver all the courses of study;
 - ❑ facilitating the entry of foreign experts to work in private institutions in fields where Malaysia has less expertise/does not have enough expertise in; and
 - ❑ encouraging industry involvement in teaching activities at private institutions.
 - o Ensuring that programmes of study in Private HEIs at all levels are of quality, appropriate, relevant and are able to compete on the global stage:
 - ❑ encouraging private institutions to offer more hands-on courses; and
 - ❑ encouraging collaboration between local private institutions and renowned foreign institutions of higher learning, particularly in terms of new knowledge exploration, consolidation and recognition programme of study.



- o Increasing and expanding R&D activities in Private HEIs:
 - ❑ encouraging private institutions to create and develop interest in R&D skills among teaching staff;
 - ❑ providing facilities and incentives to Private HEIs to conduct R&D; and
 - ❑ promoting R&D collaboration between public and private institutions with the industry.

- o Establishing elite private universities of world-class standard:
 - ❑ strengthening niche areas;
 - ❑ strengthening and expanding research and development activities focusing on the needs of local and international communities;
 - ❑ seeking international recognition of academic excellence and social services among staff and students; and
 - ❑ exploring new knowledge and its spread universally.

- o Providing support and welfare facilities for students in Private HEIs:
 - ❑ ensuring that Private HEIs provide/improve facilities and guidance and counselling services for students;
 - ❑ ensuring that Private HEIs prepare and have complete facilities for health, transportation, boarding and safety of students;
 - ❑ ensuring that Private HEIs provide and improve students' welfare services especially for low and middle income families; and
 - ❑ encouraging private institutions to provide student-friendly facilities.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Strengthening Private HEIs	Increasing participation of private institutions in SETARA and MyQUEST	Increase in the percentage of Private HEIs joining SETARA and MyQUEST at least up to Tier 4	2011 - 2015
	Increasing the number of Private HEIs eligible to be upgraded	Increase in the number of private colleges upgraded to University Colleges	2011 - 2015



Strategy	Action Plan	Outcome	Year
		Increase in the number of private university colleges upgraded to Universities	2011 - 2015
		Increased percentage of full-time Private HEI lecturers with PhD or equivalent	2011 - 2015
		Increased percentage of Private HEI scores in MyRA	2011 - 2015
	Increasing the number of established courses of study obtaining accreditation	Increased percentage of courses to be accredited	2011 - 2015
	Increasing the efficiency of Private HEIs in managing international students	Increase in the tier of achievement for international students	2011 - 2015
Improving the quality of teaching and learning	Increasing the number of private universities and university colleges operating in Purpose-Built Campus equipped with complete infrastructure	Increase in the number of universities and university colleges operating in the Purpose-Built Campus	2011 - 2015

CRITICAL AGENDA PROJECT

HOLISTIC STUDENT DEVELOPMENT

Introduction

The development of human capital includes a complete process of shaping a workforce that is knowledgeable, ethical, skilled, competitive and resilient. Human capital has become the focus and agenda of the country's leadership to be realised by all parties, including HEIs and all their students.

The determination to develop human capital strategy can clearly be seen through the strategies in the national budget. Quality education will ensure that students remain relevant to current market needs. They will also be able to face challenges and competitive international environments that are rapidly growing especially in a global economy era where knowledge is king and the emphasis is on science and technology.



'Holistic', in the context of human capital development, is not only confined to academic disciplines and enhancing skills, but also includes aspects of mind, spiritual, character and ethics. In other words, human capital development is focused on aspects of "humanity", which are built through a philosophy of life, religion and moral support. With these characteristics, the human capital available is ready to transform and develop individuals, families, communities, the country and the world in a more structured manner.

The Holistic Student Development (HSD) CAP focuses on the development of students' personality in order to produce well-balanced graduates or human capital in terms of appearance, patriotism, discipline and moral values towards the formation of the nation's human capital. Emphasis is placed on implementing co-curricular activities since it has the element of practical knowledge and philosophy that supports the development of students as a whole.

In line with Phase 1 of PSPTN Action Plan (2007-2010), MoHE has identified eight core co-curricular and campus-life activities. These areas, known as the Eight Cores of Co-curricular activities, are as follows:

- Sport
- Culture
- Initiative and Innovation
- Public Speaking
- Volunteering
- Community Service
- Entrepreneurship
- Leadership

Phase 1 Status Summary

The implementation of PSPTN Phase 1 involves the efforts in laying the basis of several programmes in order to achieve the future direction of the transformation of higher education. Three strategic objectives (SO) were placed as the basis for the project implementation with related key performance indicators (KPIs), as shown below:

- **Improving the implementation of credited co-curricular courses in all public HEIs**
Assessment made are based on the number of academic programmes at the bachelor level that implemented co-curricular courses with credits as a compulsory requirement.



As of December 2010, there are 1006 bachelor degrees offered at all universities. Of this, 85.28% or 858 undergraduate degree programmes have recommended co-curricular with credits as a graduation prerequisite.

- **Enhancing and improving the quality of the implementation of credited co-curricular courses**

The SO is focused on enhancing and improving the quality of the implementation of credited co-curricular courses. The number of credited co-curricular courses is assessed based on the content (LOKI), methods of delivery and assessment. Most public HEIs have credited co-curricular courses.

However, there are still co-curricular courses offered that do not have lesson plans which meet the required standards. Thus, steps must be taken to improve and enhance the implementation of existing credited co-curricular courses. As of December 2010, the number of credited co-curricular courses offered at all public HEIs was 1359. At the end of Phase 1, 90.36% or 1228 of the 1359 credited co-curricular has meet the standards set.

- **Increasing the number of credited co-curricular courses, particularly in the Core of Leadership, Core of Initiative & Innovation and Core of Volunteering**

Co-curricular courses offered at public HEIs tend to be more focused on Sports and Culture. This result in other cores such as Leadership, Initiative & Innovation and of Volunteerism being neglected at universities.

Among the implementation issues identified in Phase 1 are:

- Co-curricular courses focus more on Sports.
- Instructors/coaches are part-timers who have talent and experience only.
- Trainers' understanding of LOKI is still low.
- Financial constraints for implementing the initiatives at HEIs

Phase 2 Focus

The focus of Phase 2 is to strengthen the implementation of Holistic Student Development CAP. Therefore, the CAP team will coordinate the three mutually connected CAPs – which are Holistic Student Development (HSD) CAP, Graduate Employability (GE) CAP and Entrepreneurship CAP to develop an appropriate instrument to measure the level of functionality of graduates (Functional graduate; FG).



The CAP outcomes targeted for PSPTN Phase 2 by 2015 is to produce outstanding graduates, in accordance with the focus of Phase 2 which emphasises on the increase in the number of Functional Graduates (FG) graduates who are highly competitive and who can meet the demand of the market. Towards this end, the critical success factors that should be prioritised are:

- **Governance**
Ensuring coordination of efforts and actions among Stakeholders.
- **Human Resources**
Securing qualified and certified trainers.

Action Plan

Strategy	Action Plan	Outcome	Year
Increasing the implementation of credited co-curricular courses at all public HEIs	<p>Implementing Training of Trainers (TOT)</p> <p>Enforcing credited co-curricular courses as graduation requirements for academic study programmes that have not done so</p> <p>Performing <i>proforma</i> audit</p>	Increase in the number of academic programmes that have credited co-curricular courses as graduation requirements	2011-2015
Upgrading and improving the quality of implementing credited co-curricular courses	<p>Revising credited co-curricular courses based on current percentage</p> <p>Performing <i>proforma</i> audit</p>	Increase in the number of credited co-curricular courses based on the content (LOKI), method of delivery and assessment methods	2011-2015



Strategy	Action Plan	Outcome	Year
Increasing the number of co-curricular courses that are credited particularly in the Core of Leadership, Initiative & Innovation and Volunteering	<p>Developing more credited co-curricular course modules for the Core of Leadership, Initiative & Innovation and Volunteering</p> <p>Revising credited co-curricular courses based on current percentage</p> <p>Performing <i>proforma</i> audit</p>	Increase in the number of co-curricular courses for the three core groups based on current percentage	2010 - 2015
Producing functional graduates (FG) who meet market needs and are highly competitive	Developing appropriate instruments to assess the level of graduate functionality (Functioning Graduate Index-FGI)	Increase in the number of functional graduates (FG)	2011
	Implementing a pilot study		2012
	Implementing the Functional Graduate measurement programme	2012-2015	

CRITICAL AGENDA PROJECT QUALITY ASSURANCE

Introduction

Quality assurance includes policies and a systematic process that shows if the standard of scholarship and students' learning experience are achieved, maintained and enhanced.

The quality assurance process of the Malaysian Qualifications Agency (MQA) is in line with the strategic thrusts of the National Higher Education Strategic Plan (PSPTN) which is to give greater emphasis to strengthen HEIs and to strengthen the development of human capital that is dynamic, creative, innovative, progressive, resilient and competitive in Malaysia. Two strategic objectives critical to Quality



Assurance that have been entrusted to the MQA are

- Improving the quality of HEIs in Malaysia as well as their programmes of study; and
- Increasing international recognition.

Both of these critical strategic objectives are very important in order to achieve the overall higher learning quality agenda as envisaged in the Plan.

Phase 1 Status Summary

The focus areas of the Quality Assurance CAP in Phase 1 of the PSPTN implementation are:

- **Improving the quality of HEIs in Malaysia as well as their programmes of study:**
Accreditation Programme – Accreditation Programme is an assessment to determine whether a programme has met the required quality standards. The purpose of accreditation is to ensure that programmes offered meet the standards and criteria of the Code of Practice for Programme Accreditation (COPPA), as well as comply with the Malaysian Qualifications Framework (MQF) and other related guidelines
Institutional Ratings – The Rating System for Malaysian HEIs (SETARA) is a mechanism that rates HEIs. It measures the quality, accountability and performance of HEIs in Malaysia. SETARA involves data analysis that is relevant to the domains and indicators that have been selected. Rating of HEIs through SETARA, based on a rating scale, is carried out once every two years.
Thematic audit – Thematic Audit is a form of audit focused on a specific theme or academic discipline among the HEIs aimed at verifying quality standards to support the creation and delivery of public policy, or as input to the rating of institutions and programmes.
- **Increasing international recognition**
International recognition – To achieve international recognition means that the MQA plays an active role in improving the systems, practices and processes of regional and international quality assurance.

The Implementation of Quality Assurance CAP in PSPTN Phase 1 as a whole has reached the identified target. The percentage of achievement of the accreditation and registration of established programmes in the Malaysian Qualifications Register (MQR) is 98%. For SETARA '09, a total of 47 HEIs were successfully



given a rating. In relation to the KPI of the Memorandum of Arrangement (MoA), the MQA has succeeded in signing five MoA with renowned quality assurance bodies abroad. For the KPI of Thematic Audit, the Academic Performance Audit (APA) has been successfully implemented in 58 Universities and University Colleges.

The following are issues in the implementation of Quality Assurance CAP for PSPTN Phase 1:

- obtaining the commitment of HEIs to submit their accreditation applications for their established programmes within the fixed period;
- seeking the cooperation of HEIs to deliver accurate data within the fixed period for the execution of SETARA;
- Institutional Audit is relatively new to the MQA and the MQA itself is still in the process of learning its intricacies;
- obtaining the commitment of HEIs to take steps required to undergo APA within the period prescribed;
- obtaining the commitment of time from the Panel of Auditors to conduct audits; and
- ensuring that audits of all HEIs are carried out within the time prescribed.

The Focus of Phase 2

For Phase 2, the Quality Assurance CAP will continue its efforts in ensuring the quality of programmes and institutions of higher education through accreditation programmes, institutional rating and the rating of a particular discipline. In addition, the signing of a Memorandum of Cooperation with external quality assurance agencies to improve the role of MQA in the region as to strengthen regional partnerships, and the active role that the MQA can have in it, will be further intensified.

In order to ensure that the implementation of the Quality Assurance CAP goes well, the MQA will take measures such as increased collaboration, engagement, partnership and consultation with all stakeholders, review and refresh the codes of practice, guidelines and quality assurance framework, facilitate the quality assurance process that HEIs have to go through, as well as be transparent, dynamic and development focused in accordance with principles of partnership.

In Phase 2, for the first time, the MQA will implement the rating of educational discipline in HEIs through the Discipline-based Rating System for Malaysian HEIs (D-SETARA). The inaugural implementation of D-SETARA will focus on three disciplines of study which are:



- Medicine and Health Sciences
- Engineering
- Tourism and Hospitality

The selection of these three disciplines of study is to support the NKEA initiatives in Education that target the development of several groups of disciplines, including the three disciplines of education mentioned above.

The implementation of Quality Assurance CAP during the period of 2011-2015 is expected to have an impact on the quality of programmes and HEIs. Accreditation programmes will give confidence to interested parties within and outside the country about the quality of programmes, as well as present benefits for students to possess qualifications from programmes that have been accredited. Through institutional and educational discipline-based ratings, HEIs can remain competitive, responsible and will continue to achieve higher levels of quality.

The Memorandum of International Cooperation will enhance the role MQA plays at the international level and increasing global understanding of the processes and procedures for quality assurance. This will increase the transmissibility of qualifications and the mobility of Malaysian students to foreign countries.

For the Quality Assurance CAP to succeed the following factors should be considered:

- As the implementing agency, MQA requires strong and continuous support from Ministries and related policy-making agencies.
- To foster closer partnership with all stakeholders, especially with Higher Education Providers (PPT) regarding quality assurance.
- PPT's commitment and cooperation are important especially in securing certificates of accreditation for all programmes offered and to provide data in SETARA implementation and other audit exercises.
- PPT cultivates quality assurance practices and takes proactive measures in its implementation to improve the quality of higher education.
- To achieve some KPIs, additional funding is required as the cost of implementation is high.



Action Plan

Strategy	Action Plan	Outcome	Year
Improving the quality of Malaysian HEIs as well as their programmes of study	Implementing programme accreditation to ensure that programmes of study offered meet the standards and criteria of the Code of Practice for Accreditation Programme (COPPA), and comply with the Malaysian Qualifications Framework (MQF) and other related guidelines	An accredited programme of studies that is matured and registered in the Malaysian Qualifications Register (MQR)	2011-2015
	Implementing higher education institutional rating through Malaysian HEIs Rating System (SETARA) to ensure that HEIs remain competitive, responsible and strive to achieve a higher quality	Implementation of SETARA '11	2011-2012
		Implementation of SETARA '13	2013-2014
		Implementation of SETARA '15	2015-2016
	Implementing a rating based on discipline of study through Discipline-based Rating System (D-SETARA)	Implementation of D-SETARA	2011-2012
			2013-2014
			2015-2016
Increasing international recognition	Establishing a Memorandum of International Cooperation which will increase the role of the MQA internationally and global understanding of processes and quality assurance procedures. This will increase the transmissibility of eligibility and mobility of students in Malaysia to foreign countries	The signing of a Memorandum of Collaboration with international quality assurance agencies	2011-2015
	Receiving requests for MQA services from abroad	The number of requests for MQA services from abroad	2011-2015

Introduction

The Polytechnic Transformation CAP aims to build a new capacity for the polytechnics to develop national human resources to meet the needs of the New Economic Model (MBE) which emphasises creative and innovative efforts. This CAP also aims to prepare polytechnics in facing future scenarios and challenges. Together with PSPTN and the transformation of education and training in the country, the transformation of Polytechnics aims to generate human capital that has first-class mentality and meets market needs.

The transformation of the polytechnics includes systemic changes that lead to the creation of institution options, the production of graduates who meet the requirements of the market (employable graduates) and the construction of a positive perception among the community about polytechnic education. It involves aspects on the empowerment of policies, improvements in process design, delivery and evaluation of programmes, sound curriculum development, quality assurance programmes, development of competent teaching staff, student quality, complete resources and facilities and continuous innovative efforts. The Polytechnic Transformation Plan was launched by the Honourable Deputy Prime Minister on February 25, 2010, whereby three polytechnics were announced as premier polytechnics.

Polytechnics have a special role in dealing with the changing ecosystem of national higher education that not only requires highly educated, but also highly skilled human capital. Malaysia needs to increase the percentage of highly-skilled workers from 23% to 37% by 2015. Thus, the Technical Education and Vocational Training (TEVT) needs to be mainstreamed as a move to realise national goals, which include improving the image of TEVT in the eyes of the public.

The objectives of Polytechnic Transformation are:

- to boost polytechnics as a leading institution in technical education and vocational training at the diploma level;
- to strengthen the relevance and responsiveness of programmes of study at polytechnics to the requirements of national economic development;
- to lead thrust areas and specific technology to produce quality, entrepreneurial, highly employable and competitive graduates;



- to build a reputation and brand that can put polytechnics among the best HEIs in the country; and
- to diversify and increase programme offerings that will attract students to apply for polytechnics.

Polytechnic Transformation is planned to be implemented in four phases as follows:

- Phase 1 - Quick Wins and Institutional Transformation (2010-2012)
- Phase 2 - Enhancement (2013-2015)
- Phase 3 - Empowerment (2016-2020)
- Phase 4 - Excellence (beyond 2020)

In Phase 1, the CAP team had set the new direction which was translated into the function of Division at the Department and in each Polytechnic. The programmes of study offered are reviewed according to the strengths of respective polytechnics in line with the MBE and ETP of the country. At the same time, strategies are developed to increase the production of quality polytechnic graduates through educational programmes and transformational training to meet the needs of national and global workforce.

PSPTN Phase 1 (Laying the Foundation) took place from 2007 to 2010. The year 2010 was the first year of the implementation of the transformation. Some initiatives, which are enhancement and empowerment (2011-2015), are taken up in Phase 2 of PSPTN. The strategic objectives of Phase 1 of Polytechnic Transformation are as follows:

- to develop specific polytechnics as leading TEVT institutions;
- to enhance the relevance and responsiveness of programmes;
- to lead specific niche areas and technology
- to focus on reputation building and re-branding.

Phase 1 Status Summary

The Polytechnic Transformation Initiatives implemented during PSPTN Phase 1, as a whole, has achieved the set targets that include the following:



- awarding premier status to three polytechnics;
- achieving an enrolment of 87,751 students;
- offering programmes at diploma, advanced diploma and higher qualifications;
- offering more than the targeted number of new programmes;
- increasing the percentage of lecturers with a masters degree and the percentage of lecturers with professional industry certifications; and
- expanding access to disabled students, aboriginal/indigenous people and students with sport excellence to ensure the inclusiveness of polytechnic programmes to all levels of society.

The CAP implementation issues in PSPTN Phase 1 are identified as funding, development status of the construction of permanent polytechnic campuses and management of cultural change among the polytechnic community which requires a longer time.

Phase 2 Focus

The focus of Phase 2 Polytechnic Transformation CAP is in line with the implementation of the MBE, the ETP and the 10MP. Polytechnics will continue to go through enhancement and improvement phases in accordance with their position as a TEVT sector leader. The main focus of Phase 1 was to increase the production of quality polytechnic graduates through transformational education and training programmes to meet workforce needs at both national and global levels. ETP will create 3.3 million jobs in various NKEAs. From this amount, 1.5 million jobs are in the areas of TEVT. The country needs 680,000 skilled workers with a diploma by 2020. Of this total, 580,000 should have a TEVT diploma and 100,000 should have an academic diploma. Polytechnics aim to produce 355,000 diploma level employees out of the 580,000 required by the country. To achieve this goal, polytechnics will produce a total of 490,000 diploma holders (including those furthering their studies) by 2020. Polytechnics are able to achieve the targets set through the addition of several conventional polytechnics and metro polytechnics, in addition to a few polytechnics that will be upgraded. All the polytechnics will be able to achieve this target through full-time programmes, open distance learning programmes and smart partnerships with other parties, including the private sector. Offering of new programmes will also be emphasised, especially in the NKEA. The targeted achievements of the Polytechnic Transformation CAP are as follows:

- polytechnics will be the institution of choice among Malaysian Certificate of Education (SPM) holders;
- polytechnic graduates who meet the market requirement, are skilful and have high entrepreneurial know-how; and
- the public perceive studies at polytechnics positively.



Among the targeted outcomes by 2015 are as follows: -

- all polytechnics to achieve at least tier 4 in the Polytechnics Rating System (POLYRATE);
- the number of registered patents is 30;
- all polytechnic students to achieve a minimum score of 6 GSA using the My3S instruments;
- 52 new programmes will be offered;
- 85% of polytechnic graduates will be working or furthering their studies six months after completing their studies;
- a total of 88 full-time programmes will be offered; and
- more than 150,000 SPM holders will receive education and training at polytechnics.

The implementation of the Polytechnic Transformation CAP will depend on several critical success factors identified as follows: -

- adequate funding;
- transformational leadership;
- adequate infrastructure;
- effective management;
- optimum mobilisation of lecturers; and
- the involvement of industrial workforce as lecturers.

■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Increasing students' employability	Establishing a Placement Office at each polytechnic	Increase in the number of Placement Office	2011
	Training programmes for officers of Placement Offices	Increase in the number of trained officers	2011 -2014
	Establishing an Advisory Committee for Graduate Employability in each polytechnic	Increase in the number of Advisory Committee for Graduate Employability	2011



Strategy	Action Plan	Outcome	Year
	Developing an Action Plan for Graduate Employability at polytechnic level	Increase in the number of action plans for Graduate Employability	2011
	Establishing a Task Force to monitor the implementation of action plans related to graduate employability at the JPP and polytechnics levels	Increase in the number of Task Forces on graduate employability at the JPP and polytechnics	2011
	Strengthening relationships and network with the industry at all polytechnics	Increase in the number of sectors involved in the Polytechnic Workforce Network programme	2011-2015
Migration Project from Traditional Education (TE) to Outcome Based Education (OBE)	Curriculum Development	Increase in the % of programmes of study Curriculum that meets MQA requirements	2011-2015
	Implementing effective learning	Increase in the % of lecturers who achieve high scores in student response questionnaires	2015
	Implementing Constructive Alignment (CA)	Increase in the % compliance with benchmarked MQA standards during mock audits	2012
	Empowering educational sources	Increase in the % of facilities that meet MQA requirements (Area 6)	2013
	Realigning with OBE system (MQA)	Increase in the percentage of MQA Full Accreditation (FA) Status	2012
	Ensuring internationalisation equivalents	Increase in the number of recognised programmes according to the Dublin Accord	2015

Strategy	Action Plan	Outcome	Year
Improving the Quality of Teaching and Learning	Implementing Assessment and Evaluation Competency Valuation	Increase in the % of staff who are competent in assessment and evaluation	2012
	Aligning Assessment to Teaching and Learning Outcomes	Increase in the % of realigned assessment and evaluation	2011
	Maintaining assessment instruments that are both valid and reliable	Increase in the % of implementation at all levels of Assessment	2011-2015
	Amending the process of assessment and evaluation in education regulations (Act 550)	The Amendment of Education Regulations (Act 550)	2011
Strengthening the relevance and responsiveness of programmes	Developing new curriculum programme	Increase in the number of new programmes	2015
	Implementing new programmes	Increase in the number of advanced diploma and twinning programmes.	2015
Expanding access by offering new programmes	Increasing the number of full-time programmes.	Increase in the number of full-time programmes	2015
	Increasing the enrolment of full-time programmes	Increase in the number of full-time enrolment	2015
	Creating special access programmes	Increase in the % of intake for special access programmes	2011 -2015
Empowering Polytechnics to become a comparable option with universities	Implementing polytechnic rating system	Increase in the number of polytechnics reaching tier 4	From 2011
	Reorganising and restructuring the Department of Polytechnic Studies and institutions under its supervision	Increase in the % of progress of the department's restructuring activities Increase in the % of progress of premier polytechnics' restructuring activities	2012 -2013



Strategy	Action Plan	Outcome	Year
		Increase in the % of progress of conventional polytechnics' restructuring activities	
	Establishing a Centre Of Technology	Increase in the number of Centres of Technology (COT)	2015
	Empowering polytechnics as institutions of choice	Increase in the % of students who choose polytechnic education as the first choice.	2015
Strengthening Applied/ Developmental Research	Registering polytechnic research products for patents	Increase in the number of patents registered.	2015
	Increasing research collaboration with industry	Increase in the number of collaborative research projects with universities, research institutes and industry.	2015
	Increasing research funds and innovations	Increase in total value of funding for research projects and innovations.	2015
Empowering teaching force	Increasing the qualification of polytechnic teaching force	Increase in the number of lecturers with: <ul style="list-style-type: none"> • PhDs • Masters 	2015
	Enhancing the technical competencies of instructors	Increase in the % of lecturers with professional certifications from industry	2015
	Increasing the involvement of industry players in the teaching and learning in polytechnics	Increase in the number of visiting lecturers from industry	2015
Increasing the number of new polytechnics	Establishing Metro Polytechnics	Increase in the number of Metro Polytechnics	2015
	Upgrading existing polytechnics	Increase in the number of upgraded polytechnics	2015



CRITICAL AGENDA PROJECT ACCESSIBILITY AND SUSTAINABILITY

Introduction

The National Higher Education Fund Corporation (PTPTN) was established under the Fund Corporation National Higher Education 1997 (Act 566) which came into effect on July 1, 1997. The functions of PTPTN are to:

- establish and provide educational loans and financial assistance other than educational loans to students, and to provide administration, supervision and collection of loan repayment services;
- collect cash deposits, and to design and prepare saving schemes for the purpose of financing higher education; and
- perform functions designated to PTPTN as stated through legislation.

The PTPTN was established with the objective of ensuring efficient funding for students eligible for study at HEIs in line with the Government's aspiration that no students should fail to enter university because of financial reasons.

In ensuring access to tertiary education, many agencies have provided financial assistance such as the Public Service Department (PSD), the *Majlis Amanah Rakyat* (MARA), the Tunku Abdul Rahman Foundation (YTAR), Petronas, Telekom Malaysia, Tenaga Nasional, Khazanah Nasional, various foundations and state governments. However, PTPTN remains the largest source of financing for students entering HEIs.

Student enrolment at HEIs is increasing year by year. In 2020, the enrolment is expected to increase to 2,267,800 people. This is based on an average annual growth rate of 6, 4, and 10 per cent at diploma, first degree and post-graduate levels at public and private universities, respectively. A larger increase for studies at certificate and diploma levels compared to the first degree is to obtain the ratio of 2:1. This ratio is in line with the government's objective of increasing the number of semi-skilled or semi-professional workers subject to employability and industry requirements, and to promote a Lifelong Learning (LL) culture. At the same time, the significant improvement in the number at postgraduate level is in line with government policies with regards to human capital development to increase the number of PhD graduates, particularly in higher education and research institutions in order to develop the research and innovation areas.

With the increasing number of students enrolling into HEIs, the figures for PTPTN loans were also increased. When PTPTN was established in 1997, the number of loans approved was at 11,956 with a total funding



commitment of RM219 million. As the number of loans grew each year up to 2010, a total of 1.7 million loans applications were approved with the provision of RM37.4 billion. From the funding commitment, a total of RM24.9 billion was issued to university students to finance their studies, while the total amount of loans paid back was at RM2.2 billion, which was 49% of the total that should had been received (RM4.5 billion).

Sponsorship trends show that 70% of the total for the loan/financing of education in Malaysia are funded by PTPTN. By 2020, the deficit is expected to increase education funding up to RM46 billion. Among the factors that have been identified to contribute to this deficit are:

- Increased enrolment of students into HEIs at a rate of 10 per cent.
- Non-uniformity in the given loan repayment period (five to ten years) with the actual loan repayment (five to 20 years).
- Low repayment amount as the borrowers did not remit the actual sum for the monthly instalment payments.

Access to higher education is closely related to the issue of sustainability of PTPTN. The accessibility and Sustainability CAP relates to the core value of PSPTN, which is "Expanding Access and Enhancing Equity" to provide focus on efforts to ensure that PTPTN continues to contribute to the development of the country's human capital through financing students' education at the tertiary level.

The four strategic objectives under Phase 1 were formulated as follows:

- **Ensuring all eligible students are funded through improvements in the management of education funding**
PTPTN is required to provide adequate education funds in accordance with its founding objective. The focus of this objective is to obtain financing from financial institutions to enable PTPTN to assist students in HEIs.
- **Improving loan repayment**
Repayments received represent a proportion of the source for the education fund to be used to fund new and existing borrowers. As such, repayment performance should be monitored and improved for the educational interest of future generations.
- **Ensuring transition to Ujrah financing is completed by 2011** The National Fatwa Council on July 28, 2008 has agreed with PTPTN to implement a Shariah compliant financing of education through the *Ujrah* (Remuneration) concept. An estimated 1.2 million existing borrowers were affected by changes to this method.



- **Improving the National Education Savings Scheme (SSPN)**

The SSPN is a savings scheme or instrument designed by PTPTN for the purpose of higher education. It will reduce the government's burden to provide aid for education and funding education subsidies. In addition, the collection of SSPN deposits is also sourced to fund education loans.

Phase 1 Status Summary

For 2010, the level of achievement for specific strategic objectives are as follows:

- **Ensuring all eligible students received funding through the improvements in the management of education funding**

A total of RM3.0 billion was raised as targeted, through funding from various financial institutions.

- **Improving loan repayment**

A total of 81% or RM638 million from the targeted RM792 million for the year 2010 was recovered. This amount represents an increase of 15% or RM85 million from the previous year (2009: RM553 million).

Among the factors that affected collection are:

- o the loan repayment management system is still undergoing improvements, and current system being used operates on a semi manual basis;
- o the restructuring system based on the *Ujrah* method of financing has led to delays in recovery and enforcement matters as it involved the offer and acceptance of new agreements, debt rescheduling and etc.;
- o the borrower's salary does not commensurate with the students' qualifications, resulting in their inability to repay loans; and
- o the borrowers' attitude of disregarding warning letters and notices of claims, resulting in enforcement action.

- **Ensuring transition to *Ujrah* financing is completed by 2011** Offers to switch to *Ujrah* financing was implemented from September 2010, after the ELMAS system was developed. This was done from June 2010. This resulted in only 62% or 492,436 from the 800,000 targeted borrowers in being offered the switch to *Ujrah* financing.

- **Improving the National Education Savings Scheme (SSPN)** The SSPN deposit collection showed an impressive performance of 94% (RM95 million) of the targeted amount (RM100.8 million). However, the opening of new accounts recorded a rate of 70% (74,941 accounts) of the number targeted (107,140 accounts). The target was not realised due to the flexibility of the compulsory savings requirements for the application of education funding in 2009.

Only one of the four strategic objectives had achieved the 100% target set – the first strategic objective. The other strategic objectives are at the level of achievement of between 62% and 94%.

Focus of Phase 2

Phase 2 is the stage of enhancing and strengthening the efforts that were carried out by continuing to focus on ensuring the sustainability of PTPTN. Among the main steps planned in order to achieve these purposes are: -

- Implementing a review and control over the total amount for education funding by: -
 - o reducing the amount of funding for students starting in the Diploma in Nursing and Health Sciences programmes at Private HEIs. Implementation of the new loan rate will start in September 2011;
 - o implementing a policy on loan approvals based on affordable rates of repayment;
 - o collaborating with charities such as the Department of Social Community Welfare (JKM), and the *Baitulmal* to provide a living allowance to poor students; and
 - o introducing and managing *wakaf* donations from individuals and corporate bodies to be distributed to students as additional funding in the form of bursaries in addition to existing education loans.
- Improving the management of loan repayments with:
 - o speeding up the transfer of loan repayment collection role to the Inland Revenue Board (IRB);
 - o raising the level of awareness, and providing incentives to attract students to settle their debts in full;
 - o improving the repayment enforcement aspect on defaulters; and
 - o appointing a debt collection agency to track and collect from borrowers who are in default.



- Establishing SSPN as the main source of financing for children's education by: -
 - o enforcing compulsory savings in SSPN to qualify for PTPTN education financing for their children; and
 - o rebranding SSPN by introducing education insurance in accordance with the provisions of Section 13 of Act 566.

In ensuring the successful implementation of the CAP, seven critical success factors have been identified:

- **Human Capital**

Human capital is an important element that determines the success of an organisation. Therefore, a comprehensive human resource strategy is necessary to support and ensure the successful implementation of planned strategies.

Each individual in the workforce should have a first class mindset that is proactive, be highly knowledgeable morally upright, and generous in contributing towards mutual benefit and holistic development. This attitude will create a high performance work culture that can contribute to organisational excellence.

- **Source of Funds**

Sufficient sources of funding will ensure that the objectives set are achievable and would allow PTPTN to function efficiently and effectively.

- **Systems and Work Procedures**

Systems and work procedures should be reviewed regularly so that they are attuned with current developments. A robust system and work procedures would enable a boost in efficiency levels among the employees and organisation.

- **Infrastructure**

Attention is to be given for the provision of functional and cost effective facilities, optimal use of resources, maintenance and upgrading of existing amenities including computer equipment as well as software for information technology and communication.

- **Research**

PTPTN, from time to time, is required to make improvements in various aspects including existing products and services. Continuous research will help PTPTN in identifying issues that may arise or resolutions that will further strengthen its existing role and function.

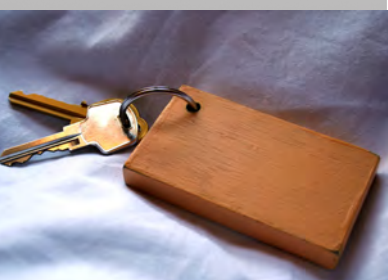


- **Top Governance**
The Government's main focus at present is to increase the effectiveness of the public service delivery system. The implementation of the best corporate governance is vital in ensuring that an excellent public service delivery system can be attained.
- **Support and Cooperation of Various Parties**
The support and cooperation from stakeholders, government or government-linked agencies, and the private sector are crucial in the success of the planned strategies.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Ensuring all eligible students receive funding through improvements in the management of education funding	Raising funds via the following sources: <ul style="list-style-type: none"> • Funding from financial institutions. • Collection of education loans. • Contribution from SSPN funds. 	Sufficient funds	2011-2015
	Reviewing and controlling the total amount of education funding by: <ul style="list-style-type: none"> • reducing the amount of funding for starting students in Diploma in Nursing and Health Sciences programme at Private HEIs • Implementing a policy on loan approvals based on affordable rates of repayment • Collaborating with charities such as the Department of Social Community Welfare (JKM), and the <i>Baitulmal</i> to provide living allowance to poor students 	Increased % of students approved for funding	

Strategy	Action Plan	Outcome	Year
	<ul style="list-style-type: none"> Introducing and managing <i>wakaf</i> donations from individuals and corporate bodies to be distributed to students as additional funding in the form of bursaries in addition to existing education loans 		
Boosting loan repayment	<p>Speeding up the transfer of role for loan repayment collection for to the Inland Revenue Board (IRB)</p> <p>Raising the level of awareness for debt repayment through the media, talks, joint work with the AKPK, and the use of Call Centres</p>	Increased % of repayments received	2011-2015
	<p>Diversifying methods/ channels for loan repayment to PTPTN</p> <p>Improving aspects of enforcement on loan defaulters through Debt Collection Agencies, CCRIS and Call Centres</p>		
Offering to switch existing loans to <i>Ujrah</i> financing	Offering the existing borrowers to switch existing loans to <i>Ujrah</i> financing	Increased % of offers to switch to <i>Ujrah</i> financing	2011-2015
Establishing SSPN as the main source of financing for children's education	<p>Re-implementing compulsory savings beginning in 2011</p> <p>Increasing tax relief from RM3,000 to RM6,000</p>	Increase in the number of new SSPN accounts and deposits	2011-2015



Strategy	Action Plan	Outcome	Year
	<p>Improving the management of SSPN through online methods</p> <p>Advertising SSPN through the mass media</p> <p>Intensifying the salary deduction campaign. Promoting SSPN in 968 schools throughout Malaysia</p> <p>Offering products with positive returns</p> <p>Increasing the number of channels for SSPN savings/ deposits</p> <p>Product enhancement through Shariah compliance status</p>		

CRITICAL AGENDA PROJECT

MyBrain15

Introduction

MyBrain15 is among one of the critical agenda outlined in the Action Plan for PSPTN. The objective of MyBrain15 is to produce sufficient number of Doctor of Philosophy (PhD) holders and its equivalent to lead innovations that will drive the nations' competitive economy. MyBrain15 will serve as a platform for the development of a critical mass of highly educated graduates eminent at international levels through their creation and innovation of products and services.

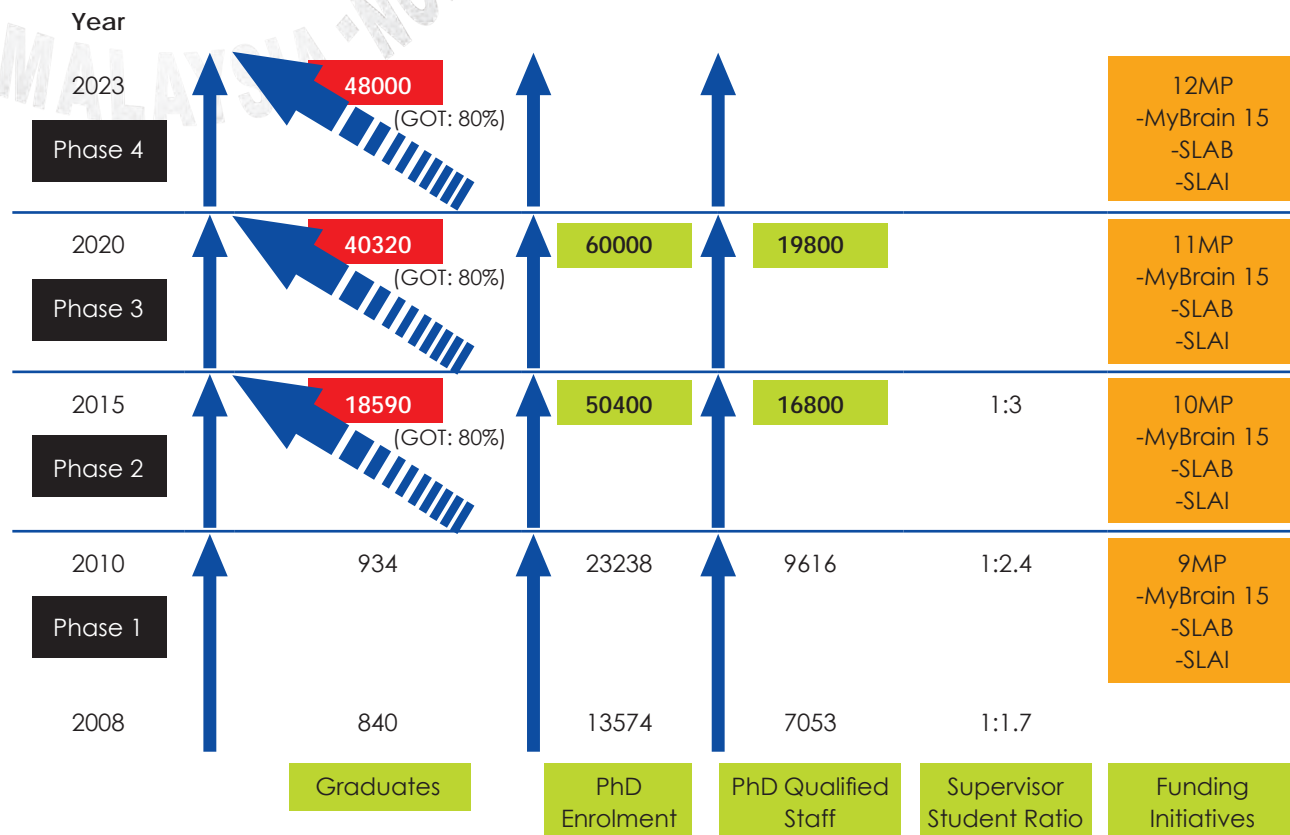
In achieving its undertaking, the Government is aiming for 60,000 Malaysians to have a PhD qualification or its equivalent by the year 2023, as well as setting the target of increasing the number of researchers at the ratio of 100 researchers, scientists and engineers (RSE) for every workforce of 10,000 people. The latest statistics obtained before PSPTN was initiated in 2008 showed that Malaysia had only 9,153 PhD qualified citizens (not including those serving in the private sector).



The process of producing PhD graduates in Phase 2 depends on the capacity of HEIs to provide adequate supervisors for postgraduate research programmes offered (referred to as Supervisory Capacity). The analysed performance data for academic staff under the sponsorship of MOHE indicates the process of producing a PhD graduate and its equivalent requires the usual period of four years (referred to as GOT or Graduate-on-Time). Consequently, the achievement of funding schemes such as the Bumiputera Academic Training (SLAB)/Institutional Academic Training Scheme (SLAI) in Phase 1 under the MyBrain15 CAPs as indicated in the Supervisory Capacity of HEIs (the ratio of supervisors and the number of students), can be measured in the middle of Phase 2 which is at the end of the GOT period for the PhD programme for the funded Public HEI lecturers.

By using statistics from 2008 as the baseline data, the MyBrain15 framework involves initiatives and long-term projections which cover the next three phases of the PSPTN and continues into the early period of Phase 4 (up to 2023).

MyBrain15 FRAMEWORK



Phase 1 Status Summary

The MyBrain15 programme in Phase 1 is focused on upgrading the Public HEIs by increasing the number of PhD qualified lecturers and its equivalent. The achievement of Phase 1 can be seen by comparing previous performances before the launch of PSPTN, i.e., by using statistics from the year 2008, as shown in the tables below:

PERCENTAGE OF PhD QUALIFIED LECTURERS

Year	Number of Qualified Lecturers (PhD and Equivalent)	Number of Lecturers	Percentage (%)
2006	7,053	18,810	37.50
2010	9,619	20,341	47.29

RATIO OF LECTURERS WITH PHD VERSUS STUDENT ENROLMENT

Year	Number of Qualified Lecturers (PhD and Equivalent)	Student Enrolment	Ratio
2006	7,053	9,612	1:1.7
2010	9,619	23,238	1:2.4

To achieve the MyBrain15 target, among the initiatives taken in the Phase 1 implementation is to increase the sponsorship for PhD and its equivalent for Public HEIs lecturers as follows:

- Sponsoring 3,333 academic staff of Public HEIs at Masters level
- Sponsoring 6,193 academic staff of Public HEIs at PhD level and its equivalent.

However, the increment of lecturers with PhD qualifications and its equivalent in Public HEIs cannot be measured in Phase 1 because on the average, it takes four to five years to complete studies at the doctoral level, and the scope of assessment for this achievement is still limited to on Public HEIs whether in terms of student supply, or demands.

Some of the MyBrain15 issues identified in the implementation of the Phase1 action plan are as follows:



- lack of lecturers with PhD qualification and its equivalent which is the minimum requirement for supervising PhD students and its equivalent;
- lack of provision to fund PhD studies; and
- length of time undertaken by PhD students exceeds the usual GOT period of four years.

Phase 2 Focus

If Phase 1 only focusses on establishing the basic capabilities of HEIs, Phase 2 will be expanding its focus on aspects of empowering such as:

- Increasing the capacity of supervision of postgraduate programmes by research at Public and Private HEIs by increasing the number of lecturers with PhD qualification and its equivalent.
- Generating demand for postgraduate studies by research by providing incentives for greater participation from all sectors other than the public sector, particularly workforce in the private sector and the general public. This extension means that the scope of PhD research is not confined to Public HEIs which involves academic supervisors, but would engage the industries with industry supervisors.
- Ensuring that funded PhD students graduate within the prescribed period (GOT).

Achievements of Phase 2 will be measured through the following methods:

- Ratio of lecturers with PhD qualification and its equivalent in Public HEIs as supervisors over PhD student enrolment in Public HEIs.
- Increased percentage of lecturers with PhD qualification or its equivalent in Public HEIs; for RUs, the target is 75% while the target for non-RUs is 60%.
- Increase in the number of citizens with PhD qualification or its equivalent.
- Increased success rate of PhD students graduating within the prescribed time period (GOT).

In this regard, among the initiatives that will be implemented to increase the number of lecturers with PhD qualification and its equivalent in Public HEIs is the funding of 9,816 students for the postgraduate studies under the SLAB/SLAI programme.



Meanwhile, the initiatives that will be implemented in order to achieve the increase in PhD student enrolment and PhD qualified citizens and its equivalent are through:

- Financing Master's Degree studies under the MyMaster programme involving 40,000 candidates.
- Financing PhD studies or its equivalent under the MyPhD programme involving 5,000 candidates.

Next, the initiative that will be carried out to raise the level of participation of industry and research institutions outside the purview of the Ministry of Higher Education is through the funding of PhD studies and its equivalent under the Industrial PhD programme which will involve 500 candidates.

However, the success for these funding programmes can only be evaluated in the Phase 3 interlude as the time to produce PhD graduates or its equivalent requires a period of at least four years. Nonetheless, several critical factors that should be taken into account by the CAP team to ensure the successful implementation of Phase 2 are as follows:

- Provide sufficient research grants and education facilities at postgraduate level.
- Ensure that students graduate within the prescribed period.
- Ensure that the selected supervisors have adequate and relevant expertise and skills

To ensure the success of MyBrain15, all parties especially HEIs need to realise the initiatives introduced and also take concrete steps to ensure that the critical success factors are refined and used as the main performance indicators. The proposed key performance indicators (KPI) for Phase 2 and Phase 3 are:

- PhD student enrolment in HEIs.
- The percentage of students with PhD or its equivalent graduating within the prescribed time period.
- The percentage of lecturers with PhD qualification and its equivalent in RUs and non-RUs.



■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Expand funding opportunities to the industry and the general public	Education funding through; <ul style="list-style-type: none"> • MyMaster • MyPhD; and • Industrial PhD 	The sponsorship of: <ul style="list-style-type: none"> • 40,000 students • 5,000 students • 500 students 	2011 - 2015
Students graduating within the prescribed period (not exceeding four years)	Ensure that students graduate successfully within the prescribed period	The monitoring process for postgraduate students	2011 - 2015
Increase the number of with PhD qualification lecturers	Sponsoring PhD studies of lecturers through the SLAB/SLAI programme	The sponsorship of 9,816 people	2011 - 2015

CRITICAL AGENDA PROJECT
ACCELERATED PROGRAMME FOR EXCELLENCE (APEX)

Introduction

Under the Phase 1 Action Plan for the National Higher Education Strategic Plan (PSPTN), one of the high-profiled projects for the empowerment of higher learning on the world stage is the involvement of public universities in the APEX programme, known as the APEX University. An APEX University will act as a catalyst to trigger the stimulus for the entire higher education system to move towards excellence. Institutions selected for this programme will become a model for other institutions in determining performance benchmarks and the best practices of the university will be emulated.

On 3 September 2008, after evaluating the proposals submitted by nine HEIs that wish to implement the APEX programme, the Committee recommended the proposal from USM for this programme. USM was chosen because it had met the three stipulated criteria:

- Demonstrates preparedness (state of readiness) of an institution to perform the leap towards excellence;
- has a Transformation Plan to sketch and determine its future in order to compete and be in the world's best ranking; and



- demonstrates preparedness for change in setting the direction and in strategic planning, using extraordinary development approaches, which require the institution to seek and identify new ways to spur rapid growth in unique circumstances.

To implement the APEX programme, flexibility should be given to USM in making rapid decisions. Steps to grant more autonomy to USM in terms of institutional governance, finance and generation of wealth, management of academic and student admissions, and human resources are being undertaken.

The main mission for USM in implementing the APEX programme is to be a pioneering university which engages in intensive cross-field research that strengthens future talents and empowers those in the lowest ranks of society to transform their socio-economic well-being, in line with the vision of USM which seeks to transform higher education for a sustainable tomorrow.

Phase 1 Status Summary

Based on that vision, the strategic objectives which focus on Transforming Higher Education for a sustainable tomorrow are as follows:

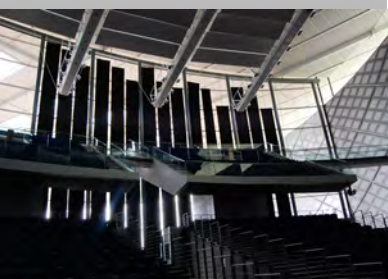
- Moving USM towards the status of a World Class Research University with emphasis on sustainability. Achievement targets under this strategic objective are:
 - o the formation of four Advanced Research Initiatives (ARIs) with impact on the global community. These initiatives are:
 - * Institute for Research in Molecular Medicine (INFORMM)
 - * Centre for Drug Research (CDR)
 - * National Advanced IPV6 Centre
 - * Enteric Diseases Research Cluster: "Molecular Approaches to Fundamental Studies on Biomarkers and Sustainable Development of Rapid Nano-biodiagnostics to Enteric Diseases for Low Resources Settings."
 - o developing three laboratories accredited by international bodies:
 - * Doping Control Centre
 - * Advance Diagnostic Laboratory
 - * CAL25 Calibration Laboratory, Health Campus



- o intensifying the quality of publications of Education Centres by the percentage of staff achieving at least 100 citations. The percentage of staff achieving this target for the year 2010 is 6.63%; and
- o establishing knowledge-based companies to accelerate innovation and creativity. The companies are as follows:
 - * Advance Nanocarbon Sdn. Bhd.;
 - * IP-Centric Solution Sdn. Bhd.;
 - * LignoBase Sdn. Bhd.; and
 - * MyTenna Sdn. Bhd.

A total of seven companies are awaiting approval from the USM Commercialisation Approval Committee (CAC).

- Propelling USM towards becoming a renowned university of international standing that adopts the concept of sustainability. For the year 2010, 44 programmes related to sustainability in the context of teaching, learning, research, community network and the Prosperous Campus concept have been implemented. Sustainability indicators have also been developed and as a start these indicators will be used to audit sustainable practices adopted by 20 responsibility centres in all three USM campuses.
- Establishing USM as a top university and a leader in community engagement in the Asia-Pacific region. A total of three main activities were carried out:
 - o Community network projects that would focus on inclusiveness by addressing issues affecting the isolated local communities, in line with the aspirations of the New Economic Model (NEM).
 - o Establishing a secretariat for the University-Community Engagement Champion (UCEC).
 - o Encouraging industry participation in communal activities organised by USM. The USM ALUMNI network is also involved in this programme.



Efforts have been made by USM together with local and international institutions to work for the lower class groups. In 2010, an alliance was formed with 14 other public HEIs:

- * Universiti Malaysia Kelantan
 - * Universiti Malaysia Pahang
 - * Universiti Malaysia Perlis
 - * Universiti Malaysia Sabah
 - * Universiti Malaysia Sarawak
 - * Universiti Malaysia Terengganu
 - * Universiti Pendidikan Sultan Idris
 - * Universiti Putra Malaysia
 - * Universiti Sains Islam Malaysia
 - * Universiti Sultan Zainal Abidin
 - * Universiti Teknikal Malaysia Melaka
 - * Universiti Teknologi Malaysia
 - * Universiti Tun Hussein Onn Malaysia
 - * Universiti Utara Malaysia
- Transforming the governance of USM through Change Management Resources, and Talent and Governance of USM. Among the actions undertaken are as follows:
 - o Restructuring organisational functions and the redrafting of the Constitution specifically for APEX universities to enable them to move at a fast pace.
 - o Enhancing student talents by introducing the Continuous Student Development programme or MyCSD. As of 2010, 57% of the student population had participated in this programme.
 - o Introducing new initiatives to enhance the quality of talent found among staff members. Although eight programmes were developed in 2010, only five programmes were successfully implemented and these are listed below:
 - * Appointment of Post-Doctoral Fellows
 - * Head Hunting for Academic Staff
 - * Appointment of Visiting Lecturers
 - * Appointment of Panel of Raters
 - * Introducing a new remuneration scheme for the post of Distinguished Professor



- o Nurturing and Grooming Talents – five new initiatives were implemented to empower staff development, namely:
 - * Appointing non-academic members to academic positions, and improvement to the Sabbatical Leave scheme
 - * The APEX Leadership Programme
 - * Introducing criteria for new appointments, and incentives for the Deans and the Directors of Centres for Excellence
 - * Improving Student Intake Management
 - * Introducing the Human Capital Management System (HCMS)
- o Increasing the Financial Resources of the University – USM generates its own revenue at a ratio of 22% compared to its grant-in-aid. Revenue is generated from tuition fees, consultancy work, commercialisation activities, research projects and other related activities.
- o Nurturing and Learning – USM introduced a new initiative in 2010 which was the establishment of the USM Student Parliament and Student Entrepreneurial Development Initiatives Agenda (SEDIA) to educate and encourage students to venture into business related activities.

In implementing the APEX programme, progress was rather limited because the process of seeking autonomy was time-consuming as it involved Acts and Regulations which requires among others, the devolution of power, the creation of a strong accountability system, and also matters involving service schemes.

Phase 2 Focus

Under the APEX programme, USM was given a period of five years (2008 - 2013) to show its achievements based on its transformation plan as stated in as its proposal, the Transformation of Higher Education for a Sustainable Tomorrow.

The results from the transformation effected through APEX is expected to influence USM's position as a relevant, referred and respected HEI, a World Class Research University with emphasis on sustainability.

For this purpose, the focus and direction of APEX for Phase 2 is to empower and improve on its achievements leading to excellence in higher education as a whole. Based on those aspirations, the

emphasis placed on Phase 2 is to refine and strengthen the foundations of APEX through the strategic objectives outlined to strengthen and accelerate the delivery of excellence. The addition of new activities with more effective targets and impact will strengthen the initiative, and enhance the delivery of excellence.

Enhancement of these initiatives will result in tangible and intangible outputs (Key Performance Indicator – KPI; and Key Intangible Performance – KIP) in tandem with the seven strategic thrusts of PSPTN and the New Economic Model in its inclusiveness, sustainability and highly abled communities (these outcomes will be documented in the publication of APEX USM 2011).

Among the critical factors in ensuring the success of Phase 2 are:

- o Innovative academic and administration workforce;
- o up-to-date infrastructure and facilities;
- o an autonomous and efficient system of governance that allows USM to move quickly; and
- o management leadership that is transformative and with the capacity to think outside the box.



Action Plan

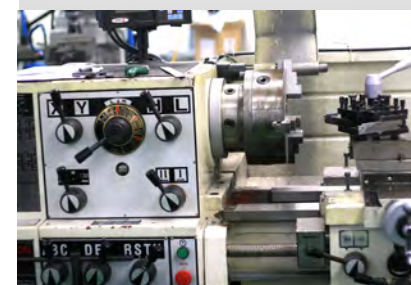
Strategy	Action Plan	Outcome	Year
Moving towards a world-class research university that emphasises sustainability	(a1) Developing initiatives for trans-disciplinary research that addresses and resolves problems to reduce inequalities and improve the quality of life	Increase in the number of ARIs	2011-2013
Rationale: There is a need to empower research teams with new teamwork concepts to produce international level research output	(a2) Empowering Advanced Research Initiative based on UK Universities Framework for Excellence	Increase in the number of ARIs achieving a three star status and above	2011-2013
	(b) Establishing laboratories accredited /recognised by international bodies	Increase in the number of accredited/recognised laboratories	2011-2013



Strategy	Action Plan	Outcome	Year
	(c) Improving the quality of faculty publications	Increased percentage of staff achieving at least 100 indexed citations	2011-2013
	(d) Increasing commercialisation activities	Increase in the number of knowledge-based companies established	2011-2013
Moving towards a world renowned sustainable university Rationale: To look into the socio-economic well-being of isolated groups based on the principles of sustainable development	(a) Internationalisation of system indicators for the sustainability of USM - Alternative University Appraisal (AUA)	A system for indicating sustainability	2011-2013
	(b) Measuring campus sustainability	Increase in the number of Centres of Responsibility (PTJs) audited	2011-2013
	(c) Creating a culture of sustainability at the centres of education/ excellence (Including the adoption of KPIs)	Increase in the number of programmes related to sustainability in the context of teaching, learning, research, community network and the Prosperous Campus concept	2011-2013
	(d) Building a network of collaboration for sustainability	Increase in the number of networking programmes	2011-2013
	(e) Introducing a compulsory university course on sustainability	University course offerings	2011-2013
Leading communal activities in the Asia-pacific region	(a) Implementing community projects aimed at inclusivity and addressing issues faced by the oppressed and isolated, particularly those in local communities. (in tandem with the aims of the NEM)	Increase in the number of projects in a year under the ideal community concept	2011-2013



Strategy	Action Plan	Outcome	Year
<p>Rationale: To address economic, sociocultural, educational, health and environmental issues affecting the lower strata in society ('Bottom Billions') and then acculturating the idea of sustainability</p>	(b) Establishing a secretariat for the University Community Engagement Champion programme (UCEC)	(i) A conference organised in relation to University Community in Communal Activities	2011-2013
	(c) Encouraging industry participation in public activities within the local community together with the Alumni network	(ii) increase in the number of new institutions in line with community involvement through UCEC	2011-2013
		Increase in the number of companies sponsoring social projects	2011-2013
<p>Managing resource change, modification of resource management, manage resources, talent, and governance in USM</p> <p>Rationale: Managing change as a form of internal acculturation which includes the university's ecosystem that supports other strategic objectives</p>	(a) University programmes concerning Governance	Increase in the number of new university initiatives	2011-2013
	(b) University programmes concerning well-being	Increase in the number of new initiatives	2011-2013
		(c) Enhancing Student Talents	(i) Increased percentage of participation among full-time undergraduates in development programmes such as MyCSD
	(ii) Increased percentage of participation among full-time postgraduates in development programmes such as MyCPD	2011-2013	
		(iii) Increased percentage of undergraduate and postgraduate students involved in activities at international level	2011-2013



Strategy	Action Plan	Outcome	Year
	(d) Introduce new initiatives to improve staff quality	Increase in the number of new initiatives in improving staff quality	2011-2013
	(e) Discover and empower talent-introduce new initiatives	Increased number of new initiatives in the retaining and empowering talents	2011-2013
	(f) Increase the university's financial resources	Increase in net revenue generated compared to government grants received (Operations)	2011-2013
	(g) Nurture and learn-introduce new initiatives in nurturing and learning	Increase in the number of new initiatives in nurturing and learning in universities	2011-2013
	(h) Promote, market and determine the ideal central position for prime projects/ programmes	(i) Increase in the number of prime projects that do not include the ARIs	2011-2013
		(ii) Increase in the number of prime projects with international standing	2011-2013

CRITICAL AGENDA PROJECT

e-LEARNING

Introduction

The rapid development of information and communication technology enables learning and teaching to be carried out online with the use of a network capable of connecting teachers and students, students and students, and students with global web materials. The use of information technology and communication to facilitate teaching and learning, or specifically e-Learning, allows students to be more active and responsible for their own learning. Student centred learning via e-Learning technology is expected to produce graduates who are more responsible, independent and self-reliant and who are able to compete in the international arena.

In going through this transformation of education, one of the early initiatives of the e-Learning Critical Agenda Project (CAP) is in the formulation of an e-Learning Policy to provide a quality framework of



e-Learning in accordance with the 1Malaysia concept and the New Economic Model. The e-Learning Policy also supports the essence of the Tenth Malaysia Plan (10MP) and Agenda *Innovasi* Malaysia (AIM). One of the five strategic thrusts outlined in the 10MP is to develop a world-class human capital by focusing on the 12 National Major Economic Areas (NKEAs), especially in the field of information and communication technology (ICT), and education services.

The e-Learning policies formulated by the e-Learning CAP team are aimed at providing quality education at all levels of HEIs, as well as equal and fair access to it for the people. This is in line with the critical needs of e-teaching areas as set forth by the National IT Council (NITC, 2010). The e-Learning policy and framework has taken into account the needs of the Economic Transformation Programme (ETP) in which more than 60% of the Entry Point Project (EPP) uses communication and information technology. The need is more obvious as a result of globalisation brought about by the latest technology in communication and the Internet.

e-Learning has certain interests that can be translated into the following objectives:

- Developing a repository and a directory of digital learning materials that can be adopted by all HEIs which at the same time, fosters a sharing of resources for e-Learning and e-Content;
- Incorporating e-Learning culture in HEIs in order to build a community of e-Learning practitioners and developers for original e-Content;
- Providing appropriate infrastructure that is e-Learning friendly;
- Producing a variety of e-Content to strengthen learning and instruction;
- Enhancing the skills of staff, students and stakeholders through e-Learning; and
- Conducting research and development in e-Learning pedagogy and technology.

Phase 1 Status Summary

- Given that the focus of the e-Learning agenda in PSPTN had only begun at the beginning of 2010, the areas of focus in Phase 1 are to:
 - o determine the level or status of e-Learning used at HEIs, Private HEIs, Polytechnics and Community Colleges;
 - o determine the status of infrastructure to support and facilitate the development of pedagogical implementation and e-Learning technology and pedagogy implementation.



- o develop a national e-Learning framework with clear and achievable targets; and
- o determine the strategies, action plans and KPI for e-Learning for the period of 2011-2015, which is the Phase 2 of PSPTN.

Overall, the target for e-Learning initiatives in Phase 1 has been achieved. The status for e-Learning and the infrastructure status for higher education have also been determined. The e-Learning policy has been drafted and agreed by the stakeholders and through this policy, the framework and targets for each phase have been developed for the period of 2011-2015.

Phase 2 Focus

In Phase 2, the CAP Project Team on e-Learning focused on the implementation of e-Learning and target setting during the Initial Phase (2011-2012), Filling Phase (2013-2014) and Optimum Phase (2015) of e-Learning. In addition, Phase 2 also focused on the application of e-Content in teaching and learning, as well as on the development and sharing of repositories and directories of digital learning materials for use and reference. To realise these goals, the National e-Learning Policy (*DePAN*) was launched by the Hon. Minister of Higher Education on 16 April 2011.

The success of e-Learning in the Optimum Stage (2015) is divided into five pillars:

- **Infrastructure:** high-speed broadband for HEIs; establishment of a helpdesk unit/ support service or appointment of a coordinator to oversee provisions for e-Learning and ICT equipments.
- **Organisational Structure:** HEIs have the vision and mission to integrate e-Learning in teaching and learning; establish an e-Learning team; develop an e-Learning policy and set up an e-Learning unit and coordinate e-Learning activities in collaboration with the ICT Centre.
- **Professional Development:** Students and staff possess e-learning pedagogical knowledge and implements e-Learning; students and staff have mastered the skills in technology and information literacy; and students, staff and stakeholders in HEIs have adopted a positive attitude towards e-Learning.
- **Curriculum and e-Content:** The course curriculum is in a blended mode; 50% of the original e-Content can be developed; implementation of e-assessment activities, and the establishment of standards for e-Learning which can be adopted in all HEIs.



- **Culture:** Staff and students use e-Learning widely; HEIs spread and share the best practices in e-Learning and award recognition at the national level.

The policies and framework of e-Learning that have been prepared can only be achieved with the existence of the following critical success factors:

- Strong support from the heads of institutions and top management is essential.
- The acceptance by the academic community that e-Learning will improve the teaching and learning process is important because e-Learning can be widely utilised only with the buy-in by stakeholders.
- All staff involved in teaching and learning must be trained so that they truly understand the advantages of e-Learning and have enough skills to develop and use e-Content in pedagogy.
- e-Content is developed systematically and meets the required standards as this is important in assuring the quality of e-Learning.
- Infrastructure that allows for the use of e-Content, as well as being student and academic friendly.



Action Plan

Strategy	Action Plan	Production	Year
Strengthening e-Learning strategies in the teaching and learning process	Improving the infrastructure for e-Learning	Preparing and launching the National e-Learning Policy (DePaN)	2011
	Determining the organisational structure for e-Learning	Policies and action plans for e-Learning to be made available at HEI level	2011
	Providing training programmes for professional development	Increase in the number of participants attending courses	2011-2015
	Determining the curriculum and e-Content	Increase in the number of curriculum courses in blended mode, and e-Content provided and downloaded into the Learning Management System (LMS)	2011-2015



Strategy	Action Plan	Production	Year
	Inculcating the e-Learning culture	Increase in the use of e-Learning	2011-2015
		Creating modes for providing incentives and recognition on the use of e-Learning	2011-2015

CRITICAL AGENDA PROJECT

MINISTRY OF HIGHER EDUCATION (MoHE) DELIVERY SYSTEM

Introduction

The MoHE Delivery System CAP was established to plan strategies and implement initiatives made under the seventh trust outlined in the PSPTN for MoHE to act as a facilitator to empower higher education and establish Malaysia as an international hub for excellence in higher education by the year 2020.

Thus, to have these goals materialised, the MoHE Delivery System needs to be proactive and responsive in providing quality services, be capable, effective and efficient, and meet the needs of customers and stakeholders through efficient management, excellent work culture, sufficient financial resources, competent human resources and complete infrastructure.

Phase 1 Status Summary

In essence, the Phase 1: Laying the Foundation (2007 – 2010) for the MoHE Delivery System had gone through a transformational process with the increase and improvement in the quality of service. Among the achievements of this CAP in Phase 1 are:

Governance

- In 2010, MoHE was awarded a Five Star rating in the MAMPU Evaluation of Star Rating System (SSR) with **excellent performance** compared to the year 2007 (Four Star rating) and 2008 (Three Star rating), and was ranked third out of the 27 Ministries evaluated in the given year.



- For the period of 2007-2010, the Ministry's Quality Service Index had improved tremendously; reaching the level of excellence with achievements of 90% in 2008, 94% in 2009 and 99.8% in 2010.
- In 2010, MoHE obtained recognition by being recertified with MS ISO 9001: 2008.

Culture

- The Culture of Work Excellence is always instilled through *Islam Hadhari* programmes, social and welfare activities, the 5S Practices and adherence to the MoHE Integrity Plan developed, along with the Work Ethics Code and MoHE's Five Core Corporate Cultural Values which are reinforced periodically such as professionalism, team work, integrity, and customer and people orientation.
- The Value Audit Management System (*SPAN*) measures the effectiveness of the reformed public services programme in terms of adoption of good values. MoHE obtained a composite index of 73.9 in *SPAN* which indicated it required improvement through more effective programmes and continuous monitoring.

Financial

- The Accountability Index (AI), assessed by the National Audit Department, is based on compliance measurement on regulations and financial procedures. MoHE achieved a Three Star rating in 2008 and 2009 with the Four Star being the highest which is the target for 2010.
- The e-SPKB and e-Acquisition was widely implemented and achieved the target of at least 70% of total turnover and was used in almost all centres of responsibility (PTJs) under the umbrella of MoHE. The active implementation of MoHE in e-Acquisition had earned it recognition and a certificate from Commerce Dot Com in the year 2011 for being the most active user.

Human Resources

- A competent pool of human resources which meets the criteria and leadership skills developed through MoHE's Training Operation Plan and continuous character building programmes.
- The MoHE Model Worker and Notable Staff Awards introduced in 2010 provided a moral boost to workers and staff.
- Authority given to Public HEIs to appoint external trainers and lecturers on contract basis has facilitated and expedited the appointments of lecturers in Public HEIs.



Infrastructure

- In the Ninth Malaysia Plan (9MP) from 2006 till 2010, MoHE carried out 669 projects comprising 511 physical projects and 158 non-physical projects (consisting of procurement of equipment, land, purchase of buildings, ICT, Research Training (SLAI), Fundamental Research Grants (FRGS), Developing Co-Curricular Courses and Human Resources for Polytechnics and Community Colleges).
- With regard to expenditure performance on development under the 9MP, MoHE had spent 98.87% of the total amount issued.
- Optimising the use of ICT – In Phase 1, a total of 17 applications were developed under the ISP project. Among the challenges faced include the use of a less stable Platform Technology, weaknesses in project management by the vendor, problems with technical expertise and the changing needs of consumers.
- 60 on-line systems developed by MoHE and the use of e-Government have helped tremendously in expediting dealings with clients such as the UPU System (Student Admission), MyMohes (Public HEIs Information System), Tracer Study (Graduate Tracing System), Scholarship, Loan Management System, Academic Profile System, Cabinet Paper Management System, Complaint System (ICMS), e-SISDOK (Document System), SPPII (Project Monitoring System), and the HRMIS (Human Resource Management Information System) which have been fully utilised by MoHE.

In sum, during PSPTN Phase 1, the MoHE delivery systems were rated as excellent. This improved image has made MoHE a source of reference by the general public and other government agencies.

Phase 2 Focus

In order to enhance the MoHE service delivery systems in Phase 2, strategic efforts will continue to be mobilised to ensure the continuity of MoHE's facilitative role and become more effective towards the implementation of projects and initiatives in PSPTN in order to improve the visibility and overall corporate image of MoHE. The action plan developed focuses on enhancing a feel-good factor among the stakeholders with the implementation of the following strategies:

- **Increasing best management practices at all levels of management.**
The Ministry of Higher Education aims to become a ministry that is competent, has a clear vision and is respected by the people. It will continue with its smart partnership efforts, apply best practices in its management and improve its performance monitoring system.



Among the main expected outcomes for delivery systems in PSPTN Phase 2 are a strengthened governance structure, excellent work culture practices, cultivation of innovative and creative practices, the creation of a conducive working environment in support of MoHE's efforts to achieve excellence, enhanced harmonious relationship between MoHE members, stake holders and the customers, efficient resource management, competency development through leadership, improvement in work quality, provision of sustainable infrastructure and info structure, and enhancement in the spirit of alliance among the institutions under MoHE.

- **Adding value and building human resource capacity through enrichment of knowledge and experience.**

The improvement and strengthening of human resource capacity will be done based on these six strategies:

- o strengthening and empowering the organisation;
- o enhancing the competency of human resources in terms of attitude, knowledge and skills (ASK);
- o expanding acknowledgment and appreciation programmes;
- o strengthening the organisational leadership at all levels;
- o raising staff awareness of the regulations and procedures on human resource management, and
- o optimising the use of the Human Resource Management Information System (HRMIS).

- **Implementing integrity and the culture of innovation among staff.**

The development of a workforce that possesses integrity and strong personal characteristics will enable MoHE to become an organisation that is well respected and looked up to. Therefore, intervention programmes to strengthen integrity as a whole, and to provide the impact as planned are to be carried out in order to ensure the value of integrity is practised and instilled in every staff as a move towards improved transparency, integrity and accountability in the Ministry's delivery system.

The focus of Phase 2 includes moves to cultivate innovation in the Ministry's delivery system by encouraging re-engineering work processes (Business Process Reengineering: BPR), widespread use of information technology and communication, preparing the Innovation and Creativity Action Plan which includes well-planned innovative cultural activities and the implementation of efforts to improve awareness on the need to have innovation and creative approaches in delivering services. Efforts will be made to



promote the success of the implementation of innovation and creativity to members of the organisation, customers and stakeholders, and improve existing channels to enable customers to make recommendations on innovation and creativity to improve the delivery service.

- **Increased use of ICT as a result of improved access and quality of infrastructure and info structure.**

The development and implementation of ICT in MoHE are based on the existing strategy of strengthening the ICT info and infra. Efforts to integrate the use of ICT in the management system will be implemented to support MoHE delivery systems. In Phase 2, the focus of the ICT Strategic Plan is to improve the delivery systems, access and quality of ICT at the Ministry.

- **Implementation of development projects to centre on non-physical rather than physical infrastructure with the main focus and emphasis on outcomes.**

MoHE was awarded an allocation of RM4.70 billion for the period of 2011-2012. Of this, RM2.82 billion is allocated for the continuation of the 9MP which will largely be completed in 2011, while RM1.88 billion is for the new projects in the 10MP. During this period, MoHE will be implementing 240 projects. Out of this, 210 are carry-overs of the 9MP projects, while 30 are new projects. Of the 240 projects, 204 are physical projects and 36 are non-physical ones.

The 10MP does not only focus on the construction of buildings, laboratories and infrastructure but also on non-physical development. This focus is consistent with the emphasis given to "outcomes"; for example, shifting focus from having academic building to focusing on enhancing proficiency among the academic teaching staff to enable students to excel.

- **Improvements on the effectiveness of financial resource management that is optimum and balanced.**

Between 2011 and 2015, financial management performance will continue to be upgraded by applying the concept of value for money. The implementation of Outcome Base Budgeting (OBB) can evaluate the impact of implementing programmes and activities in terms of value for money for every Malaysian Ringgit spent. The implementation will be made in stages by integrating the cost per output for each programme and activity. The measure for excellence in financial management will be reflected in the accountability index at a Four-Star level.



The efficiency of the asset and storage management is further improved with the implementation of the on-line Asset Management System (SPA) with all 86 PTJs. The SPA will be carried out in stages starting from 2011 to 2015. Monitoring efforts are conducted by the establishment of the Internal Inspectorate Team to ensure continuous improvement and compliance with regulations, financial procedures, and a reduction of audit criticisms on major non-compliances.

MoHE will also act as a facilitator in the process of granting autonomy status to Public HEIs in the area of financial management by providing guidelines that can be adopted to ensure a high level of accountability and integrity.

Financial management will also be further streamlined with the implementation of the Certificate of Compliance Index which is a method of transformation within management strategy to have objectives that are operational in nature. The application of this index is based on a checklist consisting of specific criteria and scope. The application of the index allows the management of the Centres of Responsibility (PTJs) to identify their strengths and weaknesses in accounting management in their respective PTJs and thus, further improve their overall financial management performance.

- **Emphasis on customer satisfaction by being increasingly responsive towards customer needs.** Customer satisfaction is MoHE's priority in Phase 2. The priority given to the customers' overall satisfaction will take into account the following matters:

- o Expediency in giving responses to customers (Responsiveness).
- o Level of frequency and effectiveness of the engagement process done with the stakeholders and the public.
- o Acknowledged as a notable ministry.
- o Increased efforts in delighting customers (Feel Good Factor).
- o Providing prompt, efficient and orderly service (Fast Delivery).
- o Displaying an exemplary corporate culture for the public.

- **Rationalising the size of MoHE's service staff by optimising its human capital in terms of ability and expertise.**

In line with the Government Transformation Programme (GTP), the Honourable Prime Minister in his speech at the 12th Civil Service Premier Event, attracted attention towards creating an efficient Malaysian Civil Service by rationalising the size of the service staff in order to meet the actual needs, reducing wastage of resources, expediting process and work procedures, and saving on Government expenditure on management. To this end, the Ministry will reassess the roles and functions of the various Departments and their human resource needs.



■ ■ ■ Action Plan

Strategy	Action Plan	Outcome	Year
Strengthening and empowering the organisation	<p>Structure & Staffing: Reviewing division/ department functions</p> <p>Improving service schemes (PPPT, academic and non-academics in Public HEIs)</p>	<p>Proposal on restructuring and redefining the function of divisions/departments</p> <p>Proposal on improving the service schemes to central agencies</p>	2011
Strengthening human resource competencies in terms of attitude, skills and knowledge (ASK)	<p>Attitude, skills and knowledge:</p> <p>Fostering positive attitudes and values, increasing the levels of integrity and accountability, and enhancing knowledge and level of job skills/terms of reference among staff</p> <p>Providing strategic and high-impact training programmes to target groups</p>	Increase in the index for values and integrity of staff	2012-2015
Strengthening organisational leadership at all levels	<p>Improving leadership quality</p> <p>Preparing back-up leaders</p> <p>Optimal placement of best talent from the higher education sector for strategic posts</p>	<p>At least a scale 4 on the leadership index of at least on a scale of 4</p> <p>Leadership towards transformation and thinking outside the box</p>	2011&2015
Expanding recognition and appreciation programmes	<p>Extending the selection of MoHE's annual model workers</p> <p>Selecting departments/ HEIs with the best delivery system</p>		2011- 2015



Strategy	Action Plan	Outcome	Year
	<p>Introducing appropriate categories of recognition/ awards from time to time (Head of Department; senior employee, employees with integrity, and loyal employees among others)</p> <p>Nomination for Awards/ Medal / <i>Bintang Kebesaran Persekutuan/ Negeri</i> for officers with excellent and notable contributions to MoHE</p> <p>Rewarding officers for outstanding performance with courses abroad</p>	<p>At least a scale 4 on the satisfaction index towards the implementation of recognition and awards programme</p> <p>5% of the officers obtaining 90% and above on performance scores</p>	2011- 2015
Increase visibility and corporate image for MoHE	Developing a feel good factor among the stakeholders by implementing initiatives such as Responsiveness, Engagement, Positive Image, Delighting Customers, Fast Delivery, Image and Branding, and Corporate Culture	Assessment of corporate image	2011- 2015
Enhancing the corporate image of MoHE	Planning and managing promotion packages/ event management for all initiatives under the PSPTN critical agenda	Understanding and acceptance of stakeholders and the public on associated initiatives	2011- 2015
Increasing customer satisfaction	Service Counter Customer Satisfaction Index (CSS) (scale 1 – 5)	Scale 4	2011- 2015



Strategy	Action Plan	Outcome	Year
Further strengthening of ICT information and infrastructure	Developing and improving ICT applications such as Customer Relationship Management (CRM), Cloud Learning Management System (CLMS), Project Management System (PMS), Human Development, Appraisal and Profiling (HDAP), and Scholarship and Loan Management System (SALAM)	Enhancing the MoHE delivery system	2011- 2015
Improving budget performance and implementation of projects under the 10MP	Managing and controlling the allocation for development in a sustainable way so that allotment can be spent as planned	95% of allocation to be spent	2011- 2015
	Monitoring the implementation of developmental projects so they can be completed within the specified time.	100% of projects completed	2011- 2015
Ensuring organisational management is both strategic and systematic	<p>Ensuring compliance to the evaluation criteria for the Star Rating System (SSR) by all MoHE divisions</p> <p>Implementing the recommendations on improvements as suggested by MAMPU</p> <p>Implementing the monitoring of compliance with the SSR criteria through the SSR Internal Audit and SSR Task Force Committee Meeting</p>	Excellent ministry management system performance, Improvements in high quality work culture and a conducive working environment	2011- 2015



Strategy	Action Plan	Outcome	Year
Implementing programmes and activities that give greater impact and value for money to MoHE	Implementing an Outcome Based Budget System (OBB) at all PTJs	Integrating PSPTN outcomes involving annual management expenses (of at least 50%)	2011- 2015
Facilitating Public HEIs in implementing financial autonomy to personally manage their own finances with accountability and integrity	Providing Standard Operating Procedures (SOP) Examining relevant Public HEIs SOPs to ascertain if it meets the needs of the Treasury Obtaining Treasury approval	Number of Public HEIs eligible for financial autonomy	2011- 2015
Financial management that is accountable and that shows integrity	Ensuring that all financial procedures such as budget management, acquisition, lease, payments, assets, storage, accounts and revenues are observed	Obtain Four Stars in the Accountability Index of The National Audit Department	2011- 2015
Improving MoHE programmes in innovation and creativity acculturation	The MoHE Innovation Plan will be developed at all levels and Divisions	Recipient of Innovation Awards at national and international levels	2011- 2015
Emphasising a culture of integrity among MoHE staff	The MoHE Integrity Plan has been developed and will be enforced comprehensively	Staff/members who possess integrity and dignity	2011- 2015
Creating a more conducive working environment	Constructing new and more comfortable buildings, improving Win Hearts and Minds and Corporate Social Responsibility (CSR) programmes	Staff who are productive, committed and devoted to the organisation	2011- 2015

CRITICAL AGENDA PROJECT LIFELONG LEARNING

Introduction

The phenomenon of globalisation will continue to impact and challenge countries all over the world, especially a developing country like Malaysia. To overcome the challenges of globalisation, Malaysians need to arrange strategies and take proactive measures to empower themselves to be competitive and progressive by developing the needed quality, skills and knowledge.

Lifelong Learning (LLL) is a major learning channel for an individual, in line with the national education system from pre-school, primary school, secondary school, pre-university and tertiary education. In fact, other than the national basic education and tertiary education, LLL is the third pillar in human capital development which stresses on developing knowledgeable and highly skilled individuals. The LLL Programme is a national priority in the development of human capital. Based on the Blueprint on Enculturation of Lifelong Learning for Malaysia 2011-2020, the focus is given to participants between the ages of 15 to 64 since this group of people are still active and productive to promote and develop the national economy.

With regards to national needs, LLL is defined as all learning experienced by an individual aged 15 years and above except for professional students. Professional students are those who participate in full-time education either in schools, colleges, training institutions or universities with the aim of entering the job market for the first time.

The projected population of Malaysia is about 34.2 million people by 2020, and 26.2 million of those will be employees between the ages of 15 and 64 years. Therefore, the potential and demand for LLL programmes extended to the masses are clearly for the purpose of increasing skills and knowledge which in turn can contribute towards value and economic development of the country. The target set in the Blueprint on Enculturation of Lifelong Learning for Malaysia is for 50% of the population between 15 and 64 years to have the opportunity to participate in LLL self-improvement programmes by the year 2020. At least 13.1 million people will benefit from this effort.

LLL implemented by HEIs employ various approaches such as distance learning, flexible education, recognition of work experience (recognition of prior learning), and short courses for improving knowledge and skills.

The basis for the establishment and the importance of the Lifelong Learning Critical Agenda Project is to cultivate LLL and empower LLL programmes and activities through:



- increasing awareness and participation of LLL;
- establishing mechanisms and infrastructure that can facilitate and provide recognition and accreditation of LLL;
- coordination of LLL by all the institutions/agencies under the Ministry of Higher Education to avoid duplication of programmes and activities;
- encouraging the sharing of resources and infrastructure in implementing LLL;
- financial support and appropriate incentives and
- monitoring LLL activities/ programmes periodically;

Phase 1 Status Summary

The focus areas for LLL in PSPTN Phase 1 are:

- Establishment of the LLL National Committee.
- Reformulation of the directions of LLL National.

Acculturation of LLL is founded on the following objectives:

- ensuring that LLL becomes a way of life for Malaysians to equip themselves with knowledge and skills for life; and
- making LLL a catalyst for the formation of a learning organisation in each organisation.

A draft of the Blueprint on the Enculturation Lifelong Learning at National Level 2011-2020 was enacted and presented to the Cabinet Committee on Human Capital Development (JKMPMI).

The following CAP implementation issues have been identified:

- Coordination of activities by institution/LLL implementing agencies under MoHE.
- Coordination of LLL promotion/campaign.
- Lack of infrastructure and facilities.
- Lack of teaching resources and skilled trainers.

Phase 2 Focus

Lifelong Learning CAP Phase 2 for 2011-2015 recommends that each institution/agency under MoHE serves to implement LLL programmes in the following ways, where applicable:



- Ministry of Higher Education (MoHE)
 - to provide LLL promotional activities;
 - to establish and coordinate a centralised LLL Database;
 - to create a sub-centre for quality control and recognition of LLL; and
 - to promote student mobility through the Credit Bank System
- HEIs/Private HEIs/Polytechnics/Community Colleges will
 - widen the use of ICT and other technologies in the delivery of teaching and learning to support LLL;
 - offer programmes/LLL courses that can meet the needs of the community;
 - encourage the sharing of resources in implementing LLL programmes;
 - offer more virtual LLL courses/programmes;
 - continue the role as provider of LLL opportunities to local communities;
 - perform the role as accredited training provider recognised by the Ministry of Human Resources (MHR);
 - strengthen existing LLL programmes;
 - offer programmes based on community needs; and
 - develop a database to collect information on the implementation of community-based courses.

The critical success factors for the lifelong learning CAP include:

- Every institution or agency under MoHE which implements LLL needs to have an organised and sound system of governance and has the following characteristics:
 - Transparency; Responsibility; Integrity;
 - Autonomy and Accountability; and
 - Professional Academic Integrity.
- Increase awareness and participation of target groups such as the low-income group, under-privileged, physically challenged, senior citizens and retirees. This is to produce a creative, innovative and competitive human capital.
- Provision of mechanisms, resources and infrastructures that can facilitate and provide recognition such as:



- o physical facilities;
- o acquisition and maintenance;
- o computer software and ICT;
- o adequate financial resources; and
- o skilled, quality and committed human resources.

■ ■ ■ Action Plan

Strategy	Action Plan	Production	Year
Improving access and equity of opportunity in LLL	Widening the use of technology (ICT)	Increased enrolment in LLL initiatives	2011 - 2015
		Increase in the number of LLL courses/programmes offered	2011 - 2015
	Strengthening LLL courses in line with community needs.	Increase in the number of courses offered <ul style="list-style-type: none"> • Modular courses • Short-term courses 	2011 - 2015
	Be a professionally accredited training provider recognised by MoHR	Increase in the Total number of LLL participation in : <ul style="list-style-type: none"> • Modular courses • Short-term courses 	2011 - 2015
		Increase in the number of LLL courses offered <ul style="list-style-type: none"> • Short-term courses • Subscribed courses 	2011 - 2015
		Increase in the total number of participation in LLL: <ul style="list-style-type: none"> • Short-term courses • Subscribed courses 	2011 - 2015



Strategy	Action Plan	Production	Year
Ensuring continuity and concern for LLL	Creating a sub-centre for quality control and LLL certification	Creating the APEL Centre	2015
	Increasing student mobility through Credit Bank System (CBS)	Creating the Credit Bank System (CBS)	2012
Raising awareness in LLL	Carrying out promotional activities	Increase in the number of promotional activities	2011
Developing systems for monitoring and supervising LLL activities	To establish and coordinate a centralised LLL Database	Increase in the percentage of completed LLL Database that is in accordance with the stipulated standard	2012

CRITICAL AGENDA PROJECT
TOP BUSINESS SCHOOL (TBS)

Introduction

In the effort to make Malaysia the Regional and International Education Centre of Excellence, MoHE plans to upgrade the status of Graduate School of Business/Management (PPSP) to Top Business School (TBS). Thus, 11 PPSP of Public HEIs were evaluated and two Graduate Schools of Management were recognised as Top Business School of international repute after fulfilling the eight criteria of TBS:

- quantity and quality of academic staff (30%);
- quantity and quality of research and learning (22%);
- quantity of postgraduate students (15%);
- quality of postgraduate students (15%);
- innovation (5%);
- professional service and awards (3%);
- network and links (5%); and
- support facilities (5%).

In 2007, the Cabinet decided to recognise UKM-GSB (Universiti Kebangsaan Malaysia - Graduate School of Business) and UPM-GSM (Universiti Putra Malaysia - Graduate School of Management) as TBS that offer Master of Business Administration (MBA) programmes at par with other world renowned universities.



Phase 1 Status Summary

The TBS CAP is not finalised but the evaluation of TBS and PPSP's achievement is done yearly using the TBS instrument. The achievements will also be re-evaluated after its recognition as TBS to ensure that there are improvements in the eight criteria of TBS.

Based on the achievements of TBS and PPSP in 2008 and 2009 and in order to raise the quality of TBS and PPSP towards a high income nation, five action plans have been designed to further enhance the TBS and PPSP achievements by 2015:

- to acknowledge PPSP as TBS;
- to increase the number of principle researchers in TBS and PPSP;
- to increase the income generated by TBS and PPSP;
- to increase the percentage of international postgraduate student enrolment in TBS and PPSP; and
- to give autonomy to TBS.

Phase 2 Focus

The focus on NKEA will ensure that high-impact projects along with the policy and incentive support from the government will contribute to a sustainable economic growth. Business and financial management services are among the 12 NKEAs which will transform Malaysia toward achieving high income economic status with a per capita income increase from USD6,700 (RM23,700) to USD15,000 (RM48,000) in the year 2020.

Apart from that, Public HEIs are encouraged to increase their income through tuition fees, training/courses/workshops, conferences, seminars, consultation, income generation from R&D output and endowments.

In order to achieve high income generation, TBS and PPSP need to have academic staff members who are high achievers with a high percentage of Principle Researchers, as well as to offer programmes of international standard.

The targeted output for TBS CAP by 2015 is as listed below:

- Four PPSPs are recognised as TBS
- 60% of Principal Researchers are registered with TBS and 50% at PPSP



- RM40 million is generated by TBS and RM45 million by PPSP
- 30% international postgraduate students are registered at TBS and 20% at PPSP
- Four TBS are given autonomy
- Participation of Private HEIs in the efforts to empower TBS.

■ ■ ■ Action Plan

Strategy	Action Plan	Output	Year
Recognising PPSP as TBS	Strengthening TBS and PPSP to meet the national agenda. Islamic banking and finance will be given priority.	Increase in the number of PPSP which will be recognised as TBS after achieving a 5-star rating.	2011 – 2015
Increasing the number of Principal researchers at TBS and PPSP	Increasing the quantity and quality of researchers	Increase in the number of experts (lecturers who become Principal Researchers) via grants	2011 – 2015
Increasing the number of publications	Increasing the quantity and quality of researchers	Increase in publication in Scopus or its equivalent	
Upgrading the quality of local journals	Increasing the quantity and quality of researchers	Increase in the number of local indexed journal	
Increasing income generation	Lessening the dependence on government and to increase autonomy	Increase in total income (tuition fees/ consultation/ research output) generated by TBS and PPSP	2011 – 2015
Increasing the percentage of international postgraduate students at TBS and PPSP	Increasing the intake of international postgraduate students	Increase in the number and percentage of international postgraduate student enrolment compared to local postgraduate student enrolment	2011 – 2015
Giving autonomy to TBS	Giving autonomy in financial and human resource management to recognised TBS	Increase in the number of TBS which are autonomous	2011 – 2015

CRITICAL AGENDA PROJECT
CENTRE OF EXCELLENCE

Introduction

The establishment of Centre of Excellence (CoE) is to spur HEIs to continuously compete in various fields of research, expertise and service at national and international levels. The variety of CoEs established is an effort to encourage research culture and increase the quality of research and development, as well as other services offered by HEIs.

The third PSPTN core is to strengthen Research and Innovation toward establishing 20 International CoEs by 2020. In line with this aspiration, the Ministry has taken the initiative to recognise CoEs at HEIs as Higher Institution Centre of Excellence (HICoE) by ranking them accordingly. The HICoEs will be nurtured and catapulted towards achieving international standard.

Phase 1 Status Summary

Up to 31 December 2010, MoHE has upgraded six CoEs to HICoEs. The recognised HICoEs will be nurtured and steered through injection of funds and continuous monitoring. This is to ensure that they will perform well in each focused area in order to reach the ever competitive regional and international standards.

The recognised HICoEs with their focused areas are as follows:

No	HICoE	HEIs	FOCUSED FIELD
1.	UM Centre of Research for Power Electronics, Drives, Automation & Control (UMPEDAC)	Universiti Malaya (UM)	Renewable Energy
2.	UKM Medical Molecular Biology Institute (UMBI)	Universiti Kebangsaan Malaysia (UKM)	Cancer Biomarkers
3.	Institute for Research in Molecular Medicine (INFORMM)	Universiti Sains Malaysia (USM)	Diagnostics Platforms
4.	Institute of Bioscience (IBS)	Universiti Putra Malaysia (UPM)	Animal Vaccines and Therapeutic
5.	Centre for Drug Research (CDR)	Universiti Sains Malaysia (USM)	Behavioural Research in Addiction
6.	Accounting Research Institute (ARI)	Universiti Teknologi MARA (UiTM)	Islamic Finance Criminology



Among the issues identified in carrying out the ranking of HICoE in the Phase 1 period are:

- to identify a consistent monitoring system to steer HICoE's direction towards internationalisation; and
- to identify strategies to encourage the merging of expertise and multi-disciplinary and multi-institutional optimal sharing of resources.

Focus of Phase 2

In the 10MP implementation period, emphasis will be given to efforts to nurture and monitor the implementation of existing HICoEs in order to gain regional and international recognition. The recognition will be measured through HICoE performance indicators from the aspects of postgraduate enrolment, networking and collaboration, research and publications, as well as of the acceptance and recognition of HICoE brands regionally and internationally.

The Ministry is also taking continuous initiative to upgrade the potential CoEs to HICoEs. This will spur sustainable research, innovation and commercialisation activities.

The focus and direction of Phase 2 is to strengthen HICoEs which have been recognised as high-impact frontier knowledge generating centres. The centre will act as a catalyst towards advanced technology. In line with its role, HICoEs are given the freedom (autonomy) to manage their own finances and human resources including monitoring, generating funds, carrying out commercialisation activities and managing intellectual properties. The HICoE host institution is responsible to provide matching grants to ensure suitable operation procedures and infrastructure befitting the HICoE status.

The targeted output of CoE CAP is through an increase in the number of HICoE at the national, regional and international levels. HICoE will provide impact as a second tier to Research Universities that contribute to the increase in the number of human capital, publication of high-impact journals, extended networking and linkages, as well as effort made in raising the quality of life of the society.

The critical success factors identified in the implementation of CoE CAP are as listed below:

- Finances and self-generation of income for the sustainability of HICoE.
- Governance in implementing HICoE.
- Limited infrastructure and physical facilities from the scope of maintenance, its relevance with current scenario and the sophistication of equipment for the purpose of critical analysis.



- Fully- and semi-qualified human resource.
- Network and collaboration linkages with bench marked parties for the purpose of coaching/mentoring and sharing of knowledge and technology.
- Involvement of Private HEIs in empowering HICoE.

■ ■ ■ Action Plan

Strategy	Action Plan	Output	Year
Recognising CoE as HICoE	Carrying out evaluation to upgrade CoE at HEIs to HICoE	Increase in the number of recognised HICoEs at national level	2011-2015
Nurturing HICoE to regional standard	Developing HICoE evaluation criteria of regional standard	Increase in the number of recognised HICoEs at the regional level	2013-2015
Nurturing HICoE to international standard	Developing HICoE evaluation criteria of international standard	Increase in the number of recognised HICoEs at the international level	2013-2015
Giving autonomy on finance and human resource matters to HICoE	Outlining the strategy and action plan towards giving autonomy to HICoE	The development of HICoE autonomy roadmap	2011 – December 2013

CRITICAL AGENDA PROJECT ENTREPRENEURSHIP

Introduction

Entrepreneurial activities are catalyst to economic growth and they develop potential to increase innovation, creativity and competitiveness of a country. In order to transform Malaysia from a knowledge-based economy to an economy based on innovations in an effort to achieve the national aspiration to be a developed and high-income nation by the year 2020, a quality and competitive human capital support is needed.

In this context, the Ministry of Higher Education (MoHE) holds the opinion that students enrolled in universities, polytechnic and community colleges should be provided exposure and steeped in entrepreneurial values and skills which encompass aspects of leadership, innovation, creativity, endurance, self-reliance, and the ability to identify and create opportunities, and take calculated risks.



Realising the importance of the above matter, MoHE has launched the HEI Policy on Entrepreneurial Development on 13 April 2010 that aimed to encourage education and the development of entrepreneurship skills in a more organised and holistic manner at HEIs. The implementation of the initiatives founded on this policy was hoped to produce graduates with entrepreneurial values, thoughts and attributes, and increase the number of entrepreneurs among graduates, who are truly engaged in business ventures. These individuals and ventures may act as catalyst to help the nation achieve its aspiration in transforming the nation from a middle-income economy to a high-income economy. At the same time, such effort will also produce entrepreneurial academics.

Entrepreneurship education is also an important component in generating a creative and innovative society in Malaysia as aspired under the Innovative Human Capital Development Plan. Furthermore, Entrepreneurship Critical Agenda play an important role in helping to increase employability of graduates from HEIs.

From the social perspective, positive development of entrepreneurial activities would help the government achieve its aspirations of improving the welfare of its people and reduce the gap between the poor and the rich, and the gap between the urban and rural communities.

Phase 1 Status Summary

On 25 May 2010, entrepreneurial education and development was included as a Critical Agenda Project in the PSPTN. In order to obtain baseline data on the extent of entrepreneurial activities and programmes that are implemented in HEIs, briefing and dialogue sessions were conducted with representatives from various HEIs to obtain the relevant information. Subsequently, strategic objectives were developed and tested to see how far these entrepreneurial programmes and activities were implemented at HEIs, taking into account the existing ecosystem provision and support system in HEIs, offered programmes of study, competency of the teaching staff in terms of their expertise and experience, and budget allocations for entrepreneurial activities and programmes. In addition, information about implementation issues and suggestions of ways to assess achievements were also discussed.

Phase 2 Focus

Among the target outcomes to be achieved by 2015 for the Entrepreneurship CAP are contributions towards supplying high quality, innovative and competitive human capital equipped with a first-class mentality. The above human capital will act as catalyst to transform the economy of the nation to a high-income economy based on innovation that will help develop sustainable businesses and industrial communities through the following outcomes:



- percentage of graduates who become entrepreneurs within six months upon graduation to increase from 1.6% to 5% (an increase of 313%);
- percentage of students who are given entrepreneurial exposure to increase to 100%;
- HEI staff who are given training in entrepreneurial education to increase to 80%; and
- enterprising HEIs delivery system.

To implement the Entrepreneurship CAP, some of the critical success factors are:

- establishment and consolidation of HEI Entrepreneurship Centres;
- financial allocation;
- policies/regulations that are conducive for entrepreneurial development;
- awareness and commitment from top management of HEIs ;
- competent educators in HEIs;
- monitoring system and graduate entrepreneur and entrepreneurial activity database;
- delivery system/ecosystem which encourages related initiatives; and
- strategic networking with related local or foreign entrepreneurs/industries/agencies.

■ ■ ■ Action Plan

Strategy	Action Plan	Outcomes	Year
Providing a conducive ecosystem that includes the environment, infrastructure and a holistic entrepreneurial education support system	<p>Re-assessing the entrepreneurship curriculum</p> <p>Taking into account equivalent credit for entrepreneurship co-curricular activities</p> <p>Strengthening and expanding the system for entrepreneurship teaching and learning</p> <p>Increasing the number of elective courses offered in the field of entrepreneurship</p>	<p>Cluster of entrepreneurship courses offered to students are clear and calculation of equivalent credit for entrepreneurship courses can be provided</p> <p>Percentage of students enrolled is available</p>	2011-2015



Strategy	Action Plan	Outcomes	Year
	<p>Improving and increasing awareness activity, exposure and acculturation on entrepreneurship, including social entrepreneurship</p> <p>Developing and expanding Entrepreneurial competition activities</p>	Increase in the number and percentage of students who are given exposure or acculturation in entrepreneurship	2011-2015
	<p>Providing special provisions in the annual university allocations for entrepreneurial activities</p> <p>Providing development allocations specifically for entrepreneurship</p>	Percentage of allocation set aside for entrepreneurship development activities should receive attention in the annual budget	2011-2015
Producing entrepreneurs among graduates from HEIs through innovative and high impact programmes	<p>Enhancing collaboration with the industry in business activities</p> <p>Encouraging business start up</p>	Increase in the number and percentage of graduates from HEIs who become entrepreneurs upon graduation	2011-2015
	<p>Increasing available retail space at the university</p> <p>Increasing structured entrepreneur activities offered to students</p>		
	<p>Encouraging students to carry out business activities</p> <p>Increasing available retail space, business opportunities and business support systems for students</p> <p>Increasing business funds available to students</p>	Increase in the number and percentage of students participating in on-campus business endeavours	2011-2015



Strategy	Action Plan	Outcomes	Year
Increasing the number of structured entrepreneurial activities offered to students	<p>Increasing training to improve teaching methods on entrepreneurship</p> <p>Providing space and opportunities for learning that can enhance the entrepreneurial skills of trainers</p> <p>Increasing the number of co-operation and input from entrepreneurs and the industry</p>	Increase in the number and percentage of teachers/mentors and experts in the field of entrepreneurship	2011-2015

CRITICAL AGENDA PROJECT
COMMUNITY COLLEGE TRANSFORMATION

Introduction

Community colleges play a key role in the development of human capital of the local community by providing the knowledge and skills and inculcating positive values and ethics through education, training and lifelong learning programmes. The Community College Transformation CAP was formed to strengthen the role of community colleges as institutions of skills training and lifelong learning hub for the local community that is based on the following objectives:

- Increasing and expanding access to skills training and routes to tertiary education for secondary school leavers and those who need them.
- Providing a variety of progressive skills training programmes to improve the standard of living of the local communities.
- Creating and fostering an entrepreneurial culture to support the socio-economic development of the local communities.
- Cultivating lifelong learning culture to develop knowledge on means to improve the quality of life.
- Increasing and expanding collaboration with higher learning institutions, the industry and various agencies for the development of quality of life of local communities.



Phase 1 Status Summary

The implementation of Community College Transformation CAP began in the middle of 2010 with the setting of seven strategic objectives and 13 Key Performance Indicators. The implementation of the Phase 1 of the Community College Transformation CAP has successfully produced the following outcomes:

- Increase in the number of National Modular Certificate (SMK) Programmes.
- Increase in the number of agencies involved in the collaborative entrepreneurial advisory.
- Increase in the number of HEIs that recognise Community College qualification.
- Increase in the number of Community Colleges.
- Increase in the number of programmes at the Community Colleges that have been successfully implemented in cooperation with HEIs, the industry and agencies.
- Increased percentage of instructors who have professional qualifications/skills.

The issues that have been identified during the implementation of Phase 1 of the Community College Transformation CAP are as follows:

- the construction of the National Modular Certificate curriculum was still in the drafting stage;
- inadequate learning space and infrastructure; and
- the lack of skilled expertise.

Phase 2 Focus

In implementing Phase 2, the Community College Transformation CAP will focus on strengthening Community Colleges with the following action plans:

- Increasing skills-oriented programmes to meet the needs of the industry to produce high-income skilled workforces.
- Re-skilling workers who have entered the working world without the relevant basic skills.
- Up-skilling trainers in accordance with the establishment of the accreditation centre in the Community Colleges.
- Promoting cooperation with government agencies and private sectors in the implementation of curriculum and transfer of knowledge and technology through apprenticeship.
- Consolidating and strengthening lifelong learning to make it the third education core after school and tertiary education in the country's lifelong learning system.
- Promoting entrepreneurship and graduate employability.
- Providing facilities, services and systems that are conducive to learning and of high quality for the local community.



With the implementation of the programmes and initiatives for Community College Transformation, it is hoped that the following results will be achieved by the end of 2015:

- 120,000 will have participated in the National Modular Certificate (SMK) programme;
- Community Colleges contribute 35% of the country's skilled workforce;
- providing maximum impact on the economic development of the local community based on knowledge, skills, creativity and innovation; and
- The Community College becomes the institution of choice for those who want to improve their skills and knowledge.

To raise the visibility of the Community College at the international level, collaborative training assistance by trainers in the field of specific skills given to countries such as Cambodia, Laos, Myanmar and Vietnam (CLMV) will be increased.

The success in achieving the desired results depends on critical factors such as effective administration, the involvement of industrial workforce as human resources, infrastructure support and sufficient funds.

■ ■ ■ Action Plan

Strategies	Action Plan	Output	Year
Improving the quality of skills-training programmes	Reviewing the existing curriculum (from the semester system to the modular system)	Increase in the number of National Modular Certificate (SMK) courses	2011-2015
	Developing curriculum that meets the needs of the industry	Increase in the number of programmes recognised by the industry/ professional bodies	2011-2015
	Establishing a mechanism and determination of the Community College rating instruments	The implementation of the Community College rating system	2011-2015
	Awarding multiple certification	Increase in the number of teaching staff with professional qualifications/ skills	2011-2015



Strategies	Action Plan	Output	Year
Increasing the capacity of community colleges to expand access	Implementing quarterly intakes (Jan, April, July, October)	Increase in the number of secondary school leavers and the local community who have received training at Community Colleges	2011-2015
	Providing adequate physical and non-physical Community College facilities	Increase in the number of Community Colleges through the development of physical projects in more districts.	2011-2015
Increasing access to HEIs for community college graduates	Providing articulation framework Developing criteria for credit transfer/exemption Establishing collaboration with HEIs	Increase in the number of tertiary institutions that accept Community College graduates	2011-2015
Increasing the participation of short-term programmes in accordance with the needs of the community	Strengthening courses parallel to the needs of the community to enhance skills and knowledge by offering courses of value-added nature or multiple certification	Increase in the number of short courses offered	2011-2015
Fostering an entrepreneurial culture in participants and the local community	Increasing the number of entrepreneurial programmes at College Communities	Increase in the number of Community College students who become entrepreneurs	2011-2015
	Encouraging collaboration between entrepreneurial advisory and external agencies	Increase in the number of agencies involved in the collaboration of entrepreneurial advisory	2011-2015
Embracing innovation culture and creativity among lecturers	Increasing the number of entries in contests related to innovation and creativity	Increased participation in competitions related to innovation and creativity	2011-2015



Strategies	Action Plan	Output	Year
	Increasing and strengthening lecturers' competencies in teaching and learning, through training, courses, workshops and seminars	Increase in the number of lecturers who are competent in teaching and learning in the field of innovation and creativity	2011-2015
Collaborating with the universities, industry and various agencies to disseminate knowledge and technology to the local society	Organising programmes that identify appropriate products, services, knowledge and technologies from the tertiary institutions and industry to match with local communities	Increase in the number of programmes in Community Colleges that have been successfully implemented with HEIs, the industry and agencies.	2011-2015
Raising visibility at the international level	Sending instructors in certain fields to CLMV countries	Recognition and contribution at international level	2011-2015

CRITICAL AGENDA PROJECT

KNOWLEDGE TRANSFER PROGRAMME (KTP)

Introduction

Based on the current economic scenario and the development of global higher education today, and against the backdrop of national aspiration for a high-income nation by the year 2020, the Ministry of Higher Education has decided that there is a need to establish a CAP that focuses on Knowledge Transfer Programme (KTP). This requirement is based on the issue of how Malaysian HEIs can help transfer generated knowledge to the target groups in expanding and strengthening public knowledge.

The establishment of KTP is based on the Consolidation Plan of University-Industry Cooperative Relation that was enacted to encourage involvement and close cooperation between the academics and the industry/community. One of the consolidation plans outlined is the Knowledge Transfer Programme for Community and Industry.



The Significance of KTP CAP

The implementation of KTP is fundamental for the strengthening of the knowledge of the community and industry in Malaysia, and will directly improve the living standard and income of the community and the industry. This is in line with the development of global higher education and the country's desire to become a high-income nation by 2020. The KTP policy will formulate the objectives, scope, area, direction and implementation guidelines of the KTP.

Phase 2 Focus

The main focus of the KTP is to understand the problems of the targeted community and industry in order to enhance the transfer and sharing of knowledge through the exchange of creative and innovative ideas, research findings, experience and skills between HEIs, research organisations, the industry, government institutions and the community at large.

At the same time, the development and improvement of the quality of products, services and policies will be shared for mutual benefit of identified stakeholders; i.e., the academics, industry, society and graduates.

Rationale of the KTP Policy

One of the rationales of the KTP policy that has been identified is to encourage and acknowledge the involvement of community/industry and academics in supporting the implementation of the NEM in creating a high-income and knowledge-sound nation. However, the need to provide a suitable platform that can serve as a medium for exchange that facilitates the identification and matching of the right expertise at higher institutions is highly required to meet the needs and concerns of the community and industry.

One of KTP policy rationales is to optimise the potential of HEI membership through coordinated interaction among the identified stakeholders. This is to preserve the interaction between stakeholders and HEIs to create sustainable and productive cooperation.

Strategic Thrust of KTP

In the improved KTP policies, the focus is to enrich the quality of human capital in HEIs, community and industry, through knowledge transfer programmes which include teaching, learning, research and services.



Therefore, empowerment in terms of access to knowledge transfer from universities can be created to spur the development of society and quality of life including the growth of industry.

Two of the KTP strategic objectives that have been identified for the universities to achieve are:

- **To enhance and enrich the current knowledge transfer in HEIs:**
 - identifying and implementing potential projects;
 - strengthening the curriculum and co-curricular activities in the HEIs based on feedback from the community and industries;
 - building capacity in academic and students in the HEIs;
 - integrating KTP initiatives in HEIs into the academic programmes of other institutions; and
 - changing the current community projects that are service-oriented to learning-oriented.

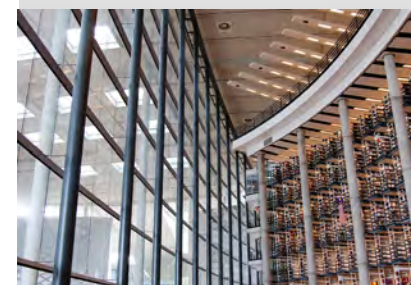
- **KTPs as catalyst for the development of community and industry:**
 - Implementing sustainable projects that are significant with the industry or communities and with measurable outcomes.
 - Empowering and increasing the capacity of industrial recipients or groups.
 - Establishing strategic partnership with key stakeholders.
 - Consent to the sharing of knowledge transfer initiatives between stakeholders.

Projects in KTP will be carried out by universities that have previous experience and expertise in carrying out work involving university-community/industry. This is based on the track records of the centres and departments in universities that have cooperated with the community and the industry.

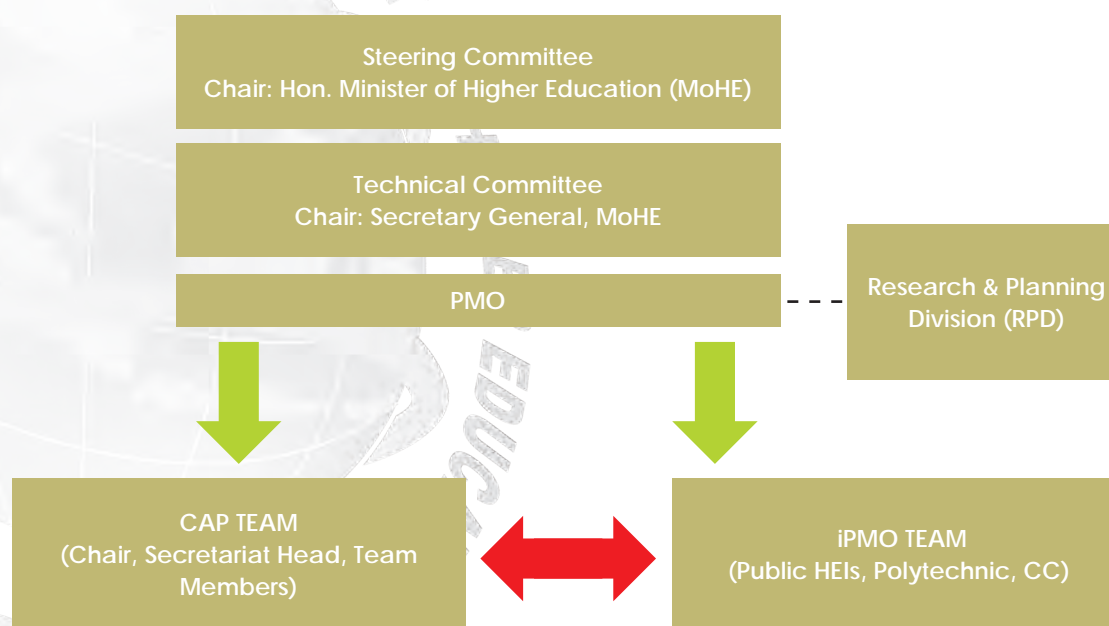
SUPPORT FOR IMPLEMENTATION

PSPTN Implementation Governance Structure

As implemented in Phase 1, the same governance structure is adopted to ensure consistency between each CAP and the initiatives as well as activities undertaken, so that they will be in line with the goal and main objectives of PSPTN (Refer to document on **National Higher Education Strategic Plan beyond the Year 2020**). This mechanism also helps the Ministry of Higher Education to collegially evaluate the developmental aspects of each CAP, as well as address the challenges and issues that arise so that the implementation will become smoother and more orderly, leading to the success of the PSPTN.



The governance structures of the PSPTN implementation is shown in the diagram below:



THE PSPTN GOVERNANCE STRUCTURE

The PSPTN Steering Committee

The meeting of the PSPTN Steering Committee comprised stakeholders at the Ministry of Higher Education. Chaired by the Minister of Higher Education, it is a forum to be held once a month to discuss issues on the implementation, resources, the implementation period and the direction of the action plan. The Committee also makes decision and gives consent to the administration mechanisms and initiatives related to each project.

The PSPTN Technical Committee

The PSPTN Technical committee also meets once a month, before the PSPTN Steering Committee Meeting. Chaired by the Secretary General of the Ministry of Higher Education, it serves to monitor the

progress of project implementation through the details on related technical aspects, solve arising issues and risks, make adjustments, and evaluate the impact of programmes and the activities towards the achievement of the CAP projects. If the issues and risks cannot be resolved at the technical committee level, the matter will be referred to the steering committee to be solved.

Research and Planning Division

The Research and Planning Division (RPD) is the division that implements the Higher Education macro plan based on the research to produce creative and innovative first class human capital to meet the national development agenda. It has become the main pulse of the Ministry in the development of human capital of the Higher Education sector and it ensures the sustainability of the PSPTN as the main agenda of the Higher Education Sector.

The RPD addresses the key issues arising from the implementation of critical projects that require policy decisions through strategic research. In addition, it will conduct studies on the policies and roadmaps based on data and facts to ensure the success of the PSPTN. Policy coordination between the ministries will also be undertaken by the RPD, where relevant and necessary.

Programme Management Office

As the entity responsible for monitoring the implementation of the PSPTN, the Programme Management Office (PMO) is responsible for driving change holistically through project management approach and it also serves as the secretariat for implementing PSPTN. The PMO operations consist of four units:

- **Planning Unit** – helps to plan the formulation of strategic objectives and action plans together with the Secretariat Head of each CAP; assists other units in the PMO in monitoring and implementing the CAP; coordinates with any agencies and departments on matters relating to CAP planning; manages meetings of the PSPTN Steering and Technical Committees, and provides performance reports on the status of the overall implementation of the PSPTN through collaboration with the Research and Planning Division of the Ministry of Higher Education.
- **Monitoring Unit** - monitors activities conducted at the central level and at the relevant implementation agencies so that the Critical Agenda Projects are on schedule; coordinates reports on the implementation from the central level and the implementation agencies on a monthly basis; provides monitoring reports to be presented at the meeting of the PSPTN Steering and Technical Committees; manages risks and issues raised by the implementing agencies in implementing the CAP.



- **Assessment Unit** – Assesses the implementation achievement of each CAP through approved approaches; proposes intervention actions; provides evaluation report feedback to CAP Secretariat for improvements; develops assessment methodologies to evaluate the implementation of the PSPTN based on the Critical Agenda Project plan and objectives; provides assessment reports to be presented at the meeting of the PSPTN Steering and Technical Committees.
- **Communication and Training Unit** – Devises the communication plan to launch the PSPTN at central and implementing agency levels; becomes the focal point in the dissemination of information about the status of PSPTN implementations; plans and conducts impact studies on the effectiveness of the PSPTN monitoring system; manages the publications of references related to the implementation of CAP; provides training and guidance to the project owners and the implementing agencies in implementing the CAP on an on-going basis.

The PMO deals directly with the Research and Planning Division of the Ministry of Higher Education in providing relevant information on PSPTN performance based on each CAP and recommending policy actions to be taken by the Division.

CAP Team

Each CAP team is headed by a Chairman, who is assisted in operation by the Secretariat Head, the secretariat and the advisory group that comprises representatives from the academia, industry (where relevant) and other stakeholders. The Chairman of the team is responsible for setting the direction of the CAP based on the PSPTN road map (Refer to the **National Higher Education Strategic Plan beyond the Year 2020** document) and negotiating, discussing and reaching agreement with the stakeholders on the CAP agenda. The CAP secretariat, which is headed by a General Secretariat, is responsible for planning and developing programmes in order to achieve targets for the KPIs, and providing implementation guidance to the implementers in HEIs. The CAP Secretariat General is also responsible to identify and communicate any constraints and challenges to the implementation, so that the process of 'unlocking' and facilitation can be done to ensure that the KPI targets are met. In this case, a strong relationship should be established between the CAP team and the iPMO Team in each institution.

iPMO – PMO Teams in HEIs

Each HEI (universities, polytechnics, community colleges) has established its own Project Management Office during the implementation of Phase 1 PSPTN, which is known as iPMO (Institutional PMO) and it is headed by a chief appointed by the institution. The role played by the iPMO is very important in



planning and implementing action plans at the respective institutions, in line with the strategic objectives set for each CAP by the CAP team, through consultations with the PMO team in the respective HEIs.

CONCLUSION

The Phase 2 Action Plan is the continuation of the interpretation of the National Higher Education Strategic Plan beyond the Year 2020 which started with the PSPTN Phase 1 Action Plan. The proposals and plans of the implementation submitted by the Project Team for all the 23 CAPs in Phase 2 are the outcomes from the combination of thoughts, efforts and wills of all stakeholders, to ensure that the country's aspiration in giving prosperity to its people can be realised.

The emphasis placed by all CAP teams on the improvement and strengthening of national human capital, through various initiatives and implementation models, was not a coincidence. The focus is based on the expectations that have been clearly outlined in the Tenth Malaysia Plan (10MP), in which "human capital development is central to the successful transformation of the country into a high-income nation" and therefore, "a holistic approach is to be taken to nurture, attract and retain top talents" (the Tenth Malaysia Plan 2011-2015 Executive Summary, page 3). In the New Economic Model for Malaysia (Part 1), the Quality Workforce Development is specified as the Strategic Reform Initiatives (SRI) 2, where human capital is seen as a crucial element as "high incomes come from skilled people who use their talents to successfully confront economic challenges faced by the community" (page 130).

The PSPTN has acknowledged the importance of human capital development since the early formulation of the Plan (2007). Thus, enhancing the quality of human capital will continuously be pursued, with a focus on the country's economic and social needs, in our effort to carry out the mission towards becoming a developed and high-income nation.



ABBREVIATIONS

ABC	Activity-Based Costing
AIM	Agenda Inovasi Malaysia
AKePT	Akademi Kepimpinan Pengajian Tinggi
AKPK	Anugerah Kualiti Pengurusan Kewangan
AKPK(PTPTN)	Agensi Kaunseling dan Pengurusan Kredit
APA	Audit Prestasi Akademik
APEL	Accreditation of Prior Experiential Learning
APEX	Program Pemacuan Kecemerlangan
ARI	Accounting Research Institute
ARI	Advanced Research Initiative
ASK	Attitude, Skill and Knowledge
BHEPP	Bahagian Hal Ehwal dan Pembangunan Pelajar
BP&P	Bahagian Perancangan dan Penyelidikan
BPR	Business Process Reengineering
CA	Constructive Alignment
CAC	Commercialization Approval Committee
CAP	Projek Agenda Kritikal (Critical Agenda Project)
CBS	Credit Bank System
CCRIS(PTPTN)	Centre Credit References Information System
CDR	Centre for Drug Research
CLMS	Cloud Learning Management System
CoE	Pusat Kecemerlangan
COPPA	Code of Practice for Programme Accreditation
COT	Centre Of Technology
CRM	Customer Relationship Management
CPD	Continous Professional Development
CSD	Continous Student Development
CUGG	Code of University Good Governance
DePAN	Dasar e-Pembelajaran Negara
D-SETARA	Discipline-based Rating System
ELMAS	Education Loan Management System
EPP	Entry Point Project
ERGS	Skim Geran Penyelidikan Eksploratori
ETP	Program Transformasi Ekonomi
FA	Full Accreditation
FG	Functional Graduate



FGI	Functioning graduate index
FRGS	Skim Geran Penyelidikan Fundamental (Fundamental Research Grant Scheme)
G2G	Government to Government
GOT	Graduate on Time
GSA	Generic Student Attributes
GSB	Graduate School of Business
GSM	Graduate School of Management
GTP	Program Transformasi Kerajaan
GTP	Government Transformational Programme
HDAP	Human Development, Appraisal and Profiling
HICoE	Higher Institution Centre of Excellence
HSD	Pembangunan Holistik Pelajar (Holistic Student Development)
IA	Indeks Akauntabiliti
IBS	Institute of Bioscience
ICT	Information and Communication Technology
INFORMM	Institute for Research in Molecular Medicine
IP	Intellectual Property
iPMO	Institutional PMO
IPT	Institusi Pengajian Tinggi
IPTA	Institut Pengajian Tinggi Awam
IPTS	Institut Pengajian Tinggi Swasta
JKM	Jabatan Kebajikan Masyarakat
JKMPMI	Jawatankuasa Kabinet Mengenai Pembangunan Modal Insan
JKPSH	Jawatankuasa Kebangsaan PSH
JPA	Jabatan Perkhidmatan Awam
JPT	Jabatan Pengajian Tinggi
KIP	Key Intangible Performance
KPI	Petunjuk Prestasi Utama (Key Performance Indicator)
KPT	Kementerian Pengajian Tinggi
KTP	Program Pemindahan Pengetahuan (Knowledge Transfer Programme)
KU	Kolej Universiti
LHDN	Lembaga Hasil Dalam Negeri
LMS	Learning Management Systems
LOKI	Learning Outcome Kemahiran Insaniah
LPU	Lembaga Pengarah Universiti
LRGS	Skim Penyelidikan Jangka Panjang
MARA	Majlis Amanah Rakyat
MBA	Sarjana Pentadbiran Perniagaan

MBE	Model Baharu Ekonomi
MJM	Memorandum Jemaah Menteri
MoA	Memorandum of Arrangement
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
MQR	Malaysian Qualifications Register
MSD	Malaysian Students Department
MTUN	Malaysian Technical University Network
My3S	Malaysian Soft Skills Scale
MyCSD	Continuous Student Development
MyQuest	Malaysian Quality Evaluation System for Private Colleges (System Pengukuran Kualiti dan Kesetaraan Kolej Swasta)
MyRA	Research Assessment Instrument
NEM	New Economic Model
NITC	National IT Council
NJM	Nota Jemaah Menteri
NKEA	Bidang Ekonomi Utama Negara (National Key Economic Area)
NKRA	National Key Result Area
OBB	Outcome Base Budgeting
OBE	Outcome Based Learning
OKU	Orang Kurang Upaya
OS	Objektif Strategik
P&P	Pembelajaran dan Pengajaran
PhD	Doktor Falsafah
PJJ	Pendidikan Jarak jauh
PMO	Pejabat Pengurusan Program
PMS	Project Management System
PPP	Public Private Participation
PPSP	Pusat Pengajian Siswazah Perniagaan/Pengurusan
PPT	Pemberi Pendidikan Tinggi
PRGS	Skim Geran Penyelidikan Pembangunan Prototaip
PSH	Pembelajaran Sepanjang Hayat
PSPTN	Pelan Strategik Pengajian Tinggi Negara
PTJ	Pusat Tanggungjawab
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional
R&D	Penyelidikan Dan Pembangunan
RMC	Research Management Centre
RMKe-10	Rancangan Malaysia Kesepuluh



RMKe-9	Rancangan Malaysia Kesembilan
RSE	Penyelidik, Saintis dan Jurutera (Researchers, Scientists, Engineers)
SALAMS	Scholarship And Loan Management System
SCL	Student Centred Learning
SEDIA	Student Entrepreneurial Development Initiatives Agenda
SETARA	Sistem Penarafan Institusi Pengajian Tinggi
SKPG	Sistem Kajian Pengesanan Graduan
SLAB	Skim Latihan Akademik Bumiputra
SLAI	Skim Latihan Akademik Institusi
SMK	Sijil Modular Kebangsaan
SOP	Standard Operating Procedures
SPA	Sistem Pengurusan Aset
SPAN	Sistem Pengurusan Audit Nilai
SPM	Sijil Pelajaran Malaysia
SRI	Stanford Research Institute
SRI	Inisiatif Pembaharuan Strategik
SSPN	Skim Simpanan Pendidikan Nasional
SSR	Sistem Star Rating
TBS	Top Business School
TE	Traditional Education
TOT	Training of Trainers
TEVT	Technical Education and Vocational Training
UCEC	University-Community Engagement Champion
UGGI	University Good Governance Index
UKM-GSB	Universiti Kebangsaan Malaysia-Graduate School of Business
UMBI	UKM Medical Molecular Biology Institute
UMPEDAC	UM Centre of Research for Power Electronics, Drivers, Automation & Control
UP	Universiti Penyelidikan (Research University)
UPM-GSM	Universiti Putra Malaysia-Graduate School of Management
WIP	Wibawa, Integriti dan Profesionalisme
YTAR	Yayasan Tunku Abdul Rahman



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