



The **WHITE BOOK** on

APEX

Phase II

2014 - 2025







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Affirming The APEX Manifestation – The Next Phase

USM ideated and submitted the Accelerated Programme for Excellence (APEX) proposal in April 2008 and was accorded the prestigious status in September 2008 by the Ministry of Higher Education.

Articulated within the “Black Book” entitled “Transforming Higher Education for a Sustainable Tomorrow”, it provided a compelling and sound framework of USM’s approach via a transformational canvas premised upon Blue Ocean Strategy, and outlined definitive steps based on the Four Actions Framework consisting of ‘eliminate’, ‘reduce’, ‘raise’ and ‘create’ in the quest to then embed a culture of excellence that transcends USM’s comprehensive operational processes by strategically thinking along the theme of sustainable development as a vehicle for the promotion of ‘wellness and well-being of the human ecosystem’.

Between 2008 and up to 2012, the manifestation of the original APEX agenda was subjected to the requisite adjustments and adaptations, necessitated by the need to infuse newer ideas, contemporaneous issues as well as current focuses on humanity, and importantly, to address how an institution of higher learning can play a distinctive role towards the well-being of mankind in the future.

USM is intent on realising the embedded culture of excellence through a comprehensive and holistic higher education process, within the context of a ‘connected’ ecosphere, through exceptional organisational development, instituting mechanisms which attach a premium on the growth and enhancement of human capital, with the consequential positive impact to society, the nation and ultimately the world.

Higher Education ecology cannot now be viewed as splintered and fractured, the preserve of select ‘silos’ but must be seen as a synergistic force amalgamating the power of knowledge and the dynamics of human capital to produce leading-edge value-driven outcomes to serve humanity and make the planet a better place – qualities congruent with USM’s motto of “We Lead” and further affirmed as key principles enshrined within the original APEX submission through its vision, mission, thrusts and values statements.

The time is now opportune for USM to migrate from the thinking and idealism drawn from the original APEX submission to actualisation through aggressive but realistic action, and to operationalise the mandates into tangible outcomes. Forging ahead with clarity of purpose and passionate conviction by all responsible would require determined focus - of strategies into implementable action plans, of ideas into measurable outputs, of archaic bureaucracy into efficient work processes, and of curriculum inertia into knowledge-based humanistic world-view.

This is consistent with the current menu of enablers predicated on technology, creativity and innovation as agents of change to mobilise the entire institutional entity to fulfil the needs of contemporary planning framework and existing focus, allowing USM to push the excellence agenda in a holistic manner – transforming the livelihoods of those peripheral to society at large, the much-neglected bottom billions, to levels equitable with outstanding achievements and universally-accepted standards of dignity and humanity, and pursuing endeavours relevant to people and planet whilst being conscious of the need to seek and be hopeful of the blessings of the Divine.

The next crucial phases of the APEX agenda, encompassing the decade between 2014 -2025 will accentuate creative and innovative efforts to pioneer new opportunities developed along the tenets of smart collaborations and partnerships, a more cost-effective working model consistent with empowerment and continuous learning, a clear and realistic ‘positioning’ configuration emphatic of the university's strengths, displaying efforts built upon the spirit of cooperation, volunteerism and entrepreneurship, an international mutually-beneficial disposition of the ‘win-win’ scenario, the vigorous nurturing of potential talent, and the optimisation of spaces and facilities, all of which augmented in a ‘connected’ ecosphere in the noble pursuit and advancement of the academics, the students, the supporting staff as well as the all-important research elements, in a seamless and integrative manner.

USM's next APEX phase aspires to deliver impactful contributions beyond knowledge discovery and enhancement, in the nurturing and fostering of humanity in a holistic fashion, transcending the physical and the mind, and able to mould ethical citizens towards the transformation and strengthening of civilization.

The APEX future, of the next decade, will undoubtedly be a consistent ‘work-in-progress’ to attain desired targets, but it will be mindful as well of the need to sacrifice, where necessary, the obsession on ‘numbers’ in the over-arching interest of real change, and the evolution of research and teaching paradigms to produce ‘unique’ global citizenry.

Concomitantly, the next APEX phases will be engaging, balanced and relevant in fulfilling the aspirations of the nation and society, ensuring the delivery of a talent repository equipped with a global mindset, replete with the necessary values and ethical stance, yet imbued with understanding of the requisites of fundamental knowledge as well as the demands and responsibilities expected of being in a ‘university’. USM acknowledges the huge expectations of the nation and its people, the trust provided by the Ministry, the demands of global and local competition and has crafted the necessary strategies and articulated decisive statements – as “We Lead”, so too will we deliver, insyaAllah.

Professor Dato’ Dr Omar Osman
Vice-Chancellor USM

The Context of APEX

Universiti Sains Malaysia (USM) was selected to implement the Accelerated Programme for Excellence (APEX) in 2008 (Figure 1). APEX is a fast track development programme to enable institutions of higher education to be recognised as world class entities. The programme aims to facilitate the university selected to be on an international level and also to motivate and help raise the level of excellence in higher education. The APEX programme was identified as one of the most critical initiatives to help transform Malaysian Higher Education. As a result of this initiative, the Ministry of Higher Education requested all local public and private institutions to submit their proposals for consideration to be selected as an APEX University, with the prestigious APEX status being awarded to one successful institution.

USM's mission in implementing the APEX program is to become a pioneering university, trans-disciplinary and research-intensive in nature that empowers future talents and enables the bottom billions to transform their socioeconomic well-being. USM's APEX program too shares similar aspirations with the government's New Economic Model where the ultimate aim is to gear the country towards bearing a high income nation while elevating livelihoods and empowering the communities to seek a better standard of living.

"We aspire to lead and innovate in achieving excellence at the international level through advancing and disseminating knowledge and truth, instilling qualities that stress academic excellence and professionalism, developing holistic individuals and providing a strong commitment towards society's aspiration, the country's vision and universal aspirations".

USM also incorporated the concept of sustainability to achieve its vision as an APEX university, which is:

"Transforming Higher Education for a Sustainable Tomorrow"

This statement of the university's vision is based on its initial efforts to develop alternatives for the future. Sustainability was one of the five scenarios that encouraged Universiti Sains Malaysia to adopt the concept of university in the garden. Universiti Sains Malaysia is described as a large tree. This tree is symbolic of knowledge while the tree roots are nurtured with care by professionals who are committed and dedicated. The branches in turn, symbolise the holistic development of mind without losing sight of a sustainable relationship with nature.

There are several reasons why USM was selected to implement the APEX programme	
1	Outstanding achievements in teaching and learning programs as well as research and innovation justify awarding Universiti Sains Malaysia the status.
2	Universiti Sains Malaysia is in best position to achieve world-class university status. Universiti Sains Malaysia has also developed basic infrastructure to complete globally and to attract quality employees as well as local and international students.
3	Universiti Sains Malaysia is the only university to receive five-star recognition by the Malaysia Qualification Agency (MQA) and this makes Universiti Sains Malaysia the best university in term of research and contribution to the community.
4	Universiti Sains Malaysia's sustainability programme was acknowledged by the United Nations University's Regional Centre of Expertise (UNU-RCE) in 2005.
5	Universiti Sains Malaysia has created a structured and systematic research programme in line with the integration between science and arts.
6	Since 2004, Universiti Sains Malaysia has rolled out institutional plans for the future up to 2025. This plan outlines a number of global reach features and also programs with sustainability-led concept.
7	In 2007, Universiti Sains Malaysia was selected by the Ministry of Higher Education as one of four research universities in Malaysia.

Figure 1 These outstanding achievements prove that USM is able to continue to move forward to become a world-class university.



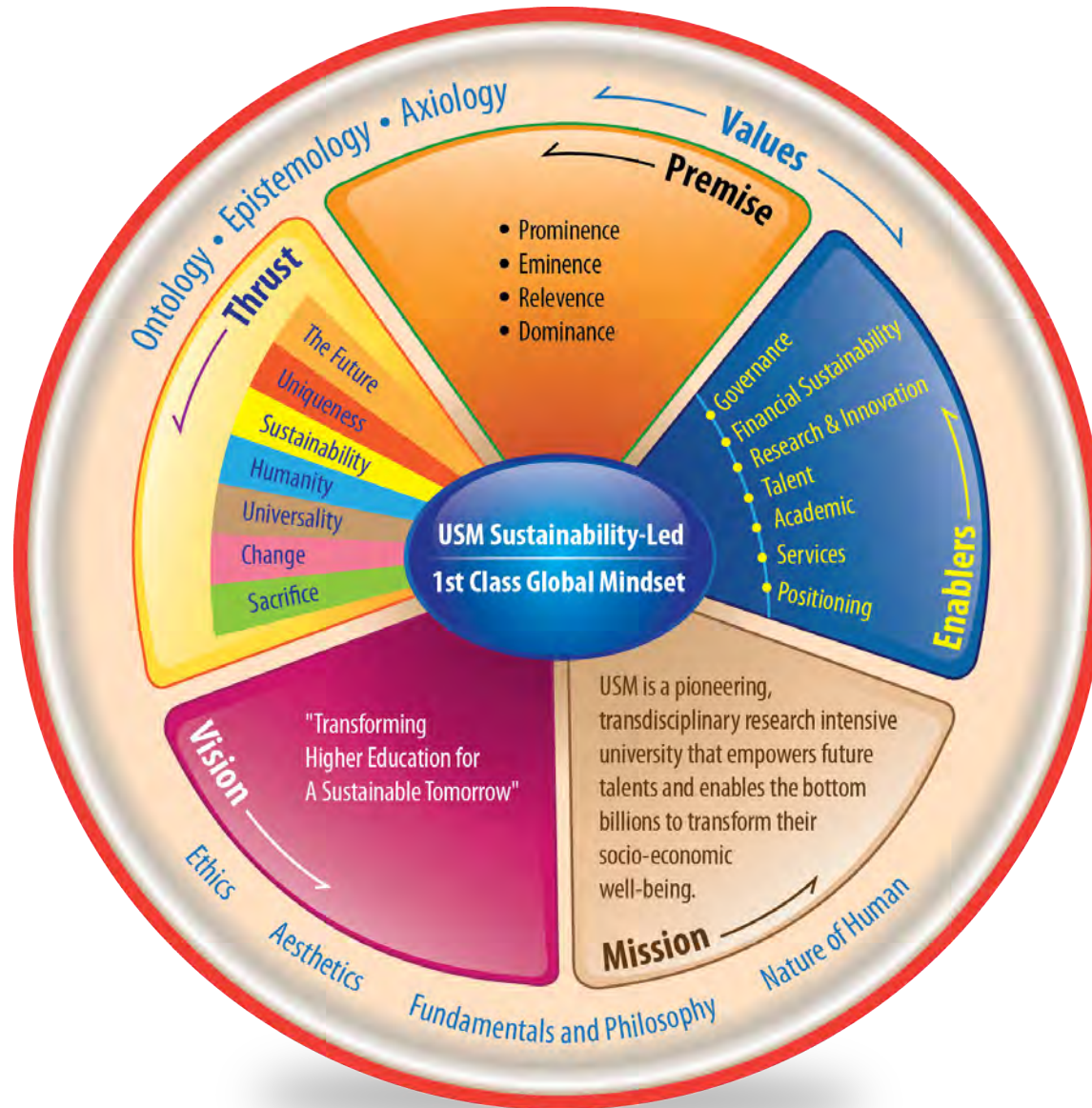
As the first APEX University, Universiti Sains Malaysia adopts a two-stage approach. First, the university intends to be world-renowned for its sustainability concepts. Second, it aims to be a leader in the sustainability process.

In this effort, Universiti Sains Malaysia has embarked on several initiatives to take on social responsibility in development by protecting the ecology, conserving natural resources and promoting human development in the framework for campus sustainability. To achieve this mission, Universiti Sains Malaysia will initialise steps to reconstruct the learning program, research and other activities without compromising environmental sustainability.

In enhancing this program, Universiti Sains Malaysia continues to move forward towards sustainability by making changes in the teaching and learning process, research and innovation activities and services to produce outstanding graduates. However, the main goal of this program is to support efforts to improve human well-being, especially the world's bottom billion. The following pages chart the transition from APEX Phase 1 to APEX Phase 2. Following that, highlights of achievement from Phase 1 will be encapsulated.

APEX Transformation Strategies

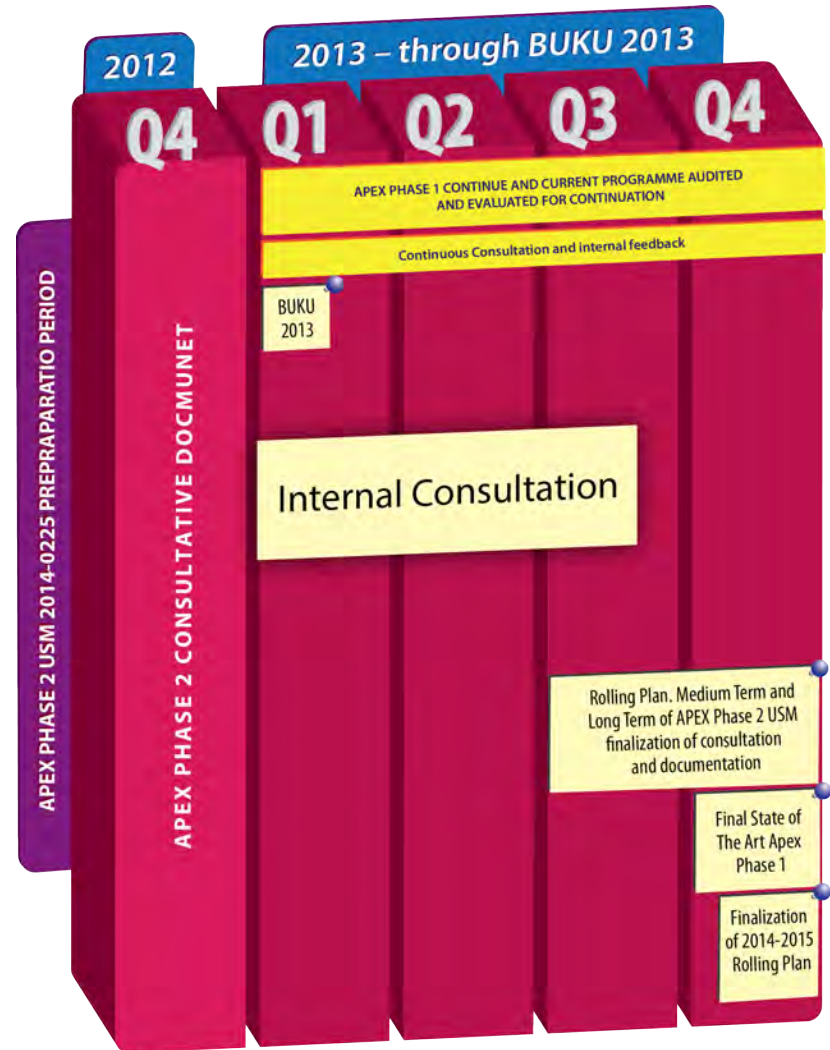




Ecosphere of APEX Second Phase

The Pathways to APEX 2 2014-2025

During Quarter 4 of 2012, drafting of the Apex Phase 2 Consultative Document was initiated (Figure 3). At the same time, APEX Phase 1 continues on its course while its current programme undergoes auditing and evaluation for continuation. Early in Quarter 1 of 2013, BUKU 2013 which determines the direction for the year is poised to be launched. Closely following this, nine enabling documents for 2014 to 2015 will be prepared. Midway between Quarter 1 and 2, budgetary calculations for 2014 to 2015 Rolling plan will begin. While work on the Rolling Plan continues, Medium Term and Long Term USM APEX Phase 2 Consultation and finalization of documentation will take place in Quarter 3. During Quarter 4, the final State of the Art APEX Phase 1 document will be released and finalization of 2014 to 2015 rolling plan will be completed.



The Pathways To APEX Phase 2 – 2014-2025



Looking Back at APEX Phase I



Key USM Deliverables Before APEX (2008)

Key USM Deliverables in 2013 (After APEX Phase I)

2717 new research grants (2004-2008)

3392 cumulative publication (citation-indexed Journal) ISI/SCOPUS (2004-2008)

0.74 publication per staff (citation indexed journal in 2008)

7801 postgraduates (enrollment as of 2008)

521 PhD graduated (2004-2008)

40 patents filed & **34** granted (2004-2008)

1760 Academic staff

14 CoE

% Increased



4897 new research grants (2009-2013)

10464 cumulative publication (citation-indexed Journal) ISI/SCOPUS (2009-2013)

1.50 publication per staff (citation indexed journal in 2012)

12097 postgraduates (enrollment as of 2012)

1316 PhD graduated (2009-2013)

287 patents filed & **35** granted (2009-2013)

1887 Academic staff

19 CoE (**2** HiCoE)

Data as Sept. 2013

USM world renowned for **sustainability**

Transforming Higher Education for a Sustainable Tomorrow

Bottom of the Pyramid

Endpoints: Quality of Life - EfSD* (2014); EFA (2015); MDG* (2015)

Global
Agenda &
Future
relevance

Autonomy
&
Accountability

Quality
of
Services

People-led,
Local
solutions

Sustainability
-led
Agenda

Talent | Governance | Resources

Values: **Quality, Equity, Accessibility, Availability, Affordability, Appropriateness**

Transformation Process  Change Management

The 7 Thrusts (MoHE, 2007)

Access/Equity

Quality T&L

R&I

Strengthening
Institution

International

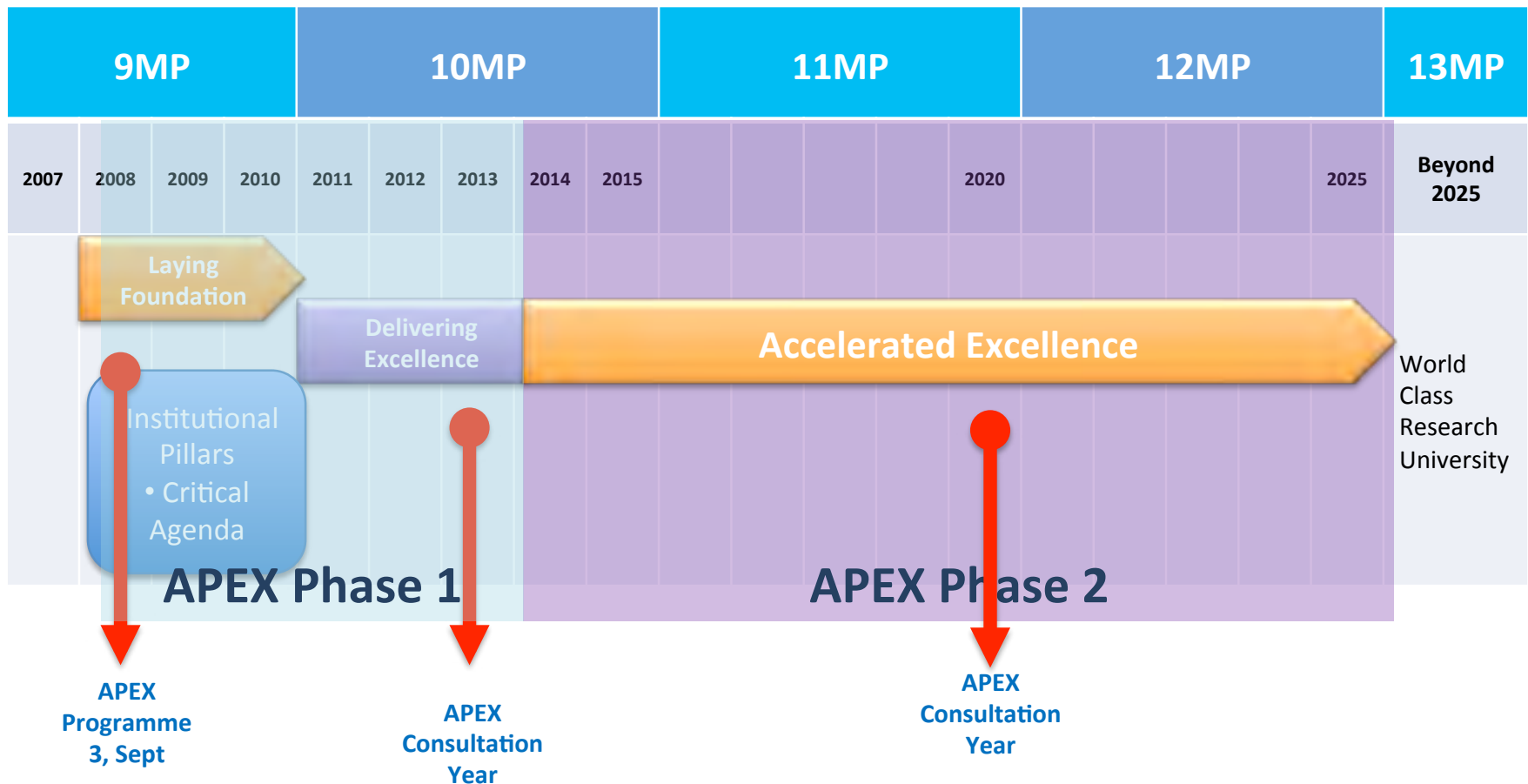
Life Long
Learning

Delivery
System

USM APEX Phase I Framework



APEX Phase I & II Timeframe



Publications & Reports



2008	<ul style="list-style-type: none"> The APEX University – Transforming Higher Education for a Sustainable Tomorrow
2009	<ul style="list-style-type: none"> USM APEX Uni. Implementation Plan :Progress Report No.1 USM APEX Uni. Implementation Plan :Progress
	<ul style="list-style-type: none"> Report No.2 USM APEX Uni. Implementation Plan :Progress Report No.3 The APEX University – Transforming Higher Education for a Sustainable Tomorrow 2009 – Laying Foundation
2010	<ul style="list-style-type: none"> The APEX University – Transforming Higher Education for a Sustainable Tomorrow 2010 – Laying Foundation Understanding Reform & The Agenda Universiti Sains Malaysia
2011	<ul style="list-style-type: none"> The APEX University – Transforming Higher Education for a Sustainable Tomorrow 2011 : Delivering Excellence – World’s First Initiative
	<ul style="list-style-type: none"> Inisiatif Terpilih Universiti APEX
2012	<ul style="list-style-type: none"> The APEX University :The-State-of-The-Art The APEX University Second Phase 2014-2025 – Consultative Document
	<ul style="list-style-type: none"> The APEX University Second Phase 2014 – 2025 : Planning & Implementation Plan Projek Strategik Universiti APEX
2013	<ul style="list-style-type: none"> Agenda Strategik 2013 – 2025 ; Universiti APEX dan Penyelidikan
	<ul style="list-style-type: none"> Perancangan Pembangunan Kampus Bertam



APEX Phase I

ACHIEVEMENTS

Phase I

Governance & Finance

APEX Constitution

- ▶ gazetted on 1st July 2011
- ▶ Ombudsman institutionalized
- ▶ The Whistle blower provision institutionalized.

Financial Innovation

2008
• ePayment

2009
• myAccount

2010
• eFAS @ PTJ (main campus)

2011
• eFAS @ PTJ (branch campuses)
• Back-up and disaster recovery

2012
• eClaim
• Institutional Repository for financial data
• eOT (Overtime)

Autonomy for five varsities

Free hand for research institutions by 2015

By RICHARD LIM
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KUALA LUMPUR: Malaysia's five research universities are set to receive full autonomy by 2015, Higher Education Minister Datuk Seri Mohamed Khairi Nordin said.

He said this was possible as the ministry's Roadmap for Autonomy Audit showed that the research universities should be ready by then.

Conducted early this year, the pilot audit evaluated Universiti Kebangsaan Malaysia (UKM) and Universiti Sains Malaysia (USM) - the nation's apex university - on institutional governance, academic governance, financial management and human resource management.

Mohamed Khairi said that UKM and USM had recorded more than 80% for all aspects, deeming them ready for full autonomy.

He added, however, that attaining full autonomy did not mean universities had a free rein and the public should not be worried about privatisation or rising fees.

"The Government will never abdicate its responsibilities to provide affordable and qual-

ity education to the people," he said at a press conference after delivering the keynote address at the Forum on University Governance Towards Autonomy at Hotel Istana yesterday.

"Autonomous universities will continue to be funded to subsidize the cost of higher education and although they will be expected to raise private fees, student recruitment must be based on quality rather than their capacity to pay."

Mohamed Khairi added that the Government's involvement in university affairs was primarily to safeguard national interests.

The ministry's pilot study was carried out by a team headed by UKM vice-chancellor Prof Tan Sri Dr Shahril Hafiz Syed Nasir Shahabudin.

The team developed instruments for the implementation of the audit, namely the Code on University Good Governance and the University Good Governance Index.

Under the index, universities are deemed to be ready for full autonomy if they score at least 80% for each of the four aspects of evaluation.

The five research universities are USM, UKM, Universiti Malaya, Universiti Putra Malaysia and Universiti Teknikal Malaysia.

Internalization Process

University's Performance Appraisal System

- PTK
- MyCPD System
- Human Capital Management System (HCMS)

- » Cost rationalization activities & the impacts
- » Transformation of training and Capacity Building
- » USM Research Council
- » Other transformations:
 - Asset, property & development functions
 - Financial functions
 - HR functions



Selected Student Development Programs

APEX Phase I



MyCSD
Transkrip Aktiviti Pelajar
Student's Activities Transcript



WORLD CLASS RESEARCH AND INNOVATION FOR TOMORROW'S SUSTAINABILITY
NOVEL RESEARCH AND INNOVATION COMPETITION 2022

USM We Lead Zero Waste Campus
Virtual Interest Group
Projek Kitar Semula **Skuad Kempen**
Kompos Sisa Taman Persekitaran Sejahtera
Kampus Sejahtera
White Coffin **Kesejahteraan Tasik** **Pemantauan dan Penilaian**
No Plastics **Penyelidikan** **Skuad Bencana KAMPUS**

USM: No quota, selection based on meritocracy

By Bernard Cheah and Qalyn Mok
bernard@sunaraya.com

GEORGE TOWN: A successful Sarawak University (USM) will provide opportunity to its selection of students after it was named the country's first apex university, Higher Education Minister Datuk Seri Mohamed Khairuddin said yesterday.

"There is no quota system, it's based on meritocracy," he said reporters at a press conference at USM. "We must have the best lecturers, a strong vice-chancellor (and) a good selection of students."

Khairuddin said USM will have privileges to set its own law although the government will provide its input on academic and administrative matters.

He said a new transformation road map will be unveiled within the next few months after discussions and studies are made between the university and statutory officials.

Khairuddin said the selection of USM as an apex university will have an effect on 11 universities of Malaya, which was not chosen although it is the country's oldest university, he said. "It's not about ranking but selecting the best of the best universities identified for the program and giving the chosen institution the extra push from the

government to be world-class."

The three criteria that USM fulfilled were its state-of-research, its transformation plan, and its preparations for change.

Khairuddin urged USM to maintain an open and transparent system while anticipating future plans in education, research and technology.

He expressed the hope that there would be focus on nurturing diversity, inclusion and engagement with the industry given.

He said the university, which will receive special assistance and support from the government in terms of administration and other requirements, should be given time to be among the top 200 universities in the world within five years.

Vice-Chancellor Prof Tan Sri Denziffi Abdul Razak, who was at the press conference, responded: "It's 100 per cent."

Earlier, Khairuddin witnessed the signing of a memorandum of understanding between USM and ALEX, Yayasan Jaka Bina as a collaboration research partnership.

Complimenting USM, Chief Minister Lim Guan Eng said it is accept only the best students and not practice discrimination based on race, religion, gender or political affiliation.

In a statement, he said USM's challenge now is to be ranked in the top 200 in ratings such as the Times Higher Education Reputation (THE20) in five years and to make it into the top 100 by 2025.

"In the latest THE20 ranking, USM is in 307th place and it is only by choosing the best that USM can realize its goal of being one of the top 100 universities in the world," he said.

Lim said the choice of USM as an apex university will be a master plan for USM to participate and prosper in general.

"With the new status, USM is now in the best position to transform. Pressing into a knowledge hub as it will have greater autonomy and larger facilities," he said.

He said one of the key criteria of an apex university is ensuring stringent and rigorous criteria for selecting lecturers and those as well as ensuring a merit system for students.

The state government has provided a grant of RM100 million to support the university in its transformation.

"In an other response, he said a support plan to be implemented by the Pwng group to support the university in its transformation, including its research and development as well as to support the university in all fields," he said.

Student Parliament



Direct Intake

Munsyl Test



Achievements

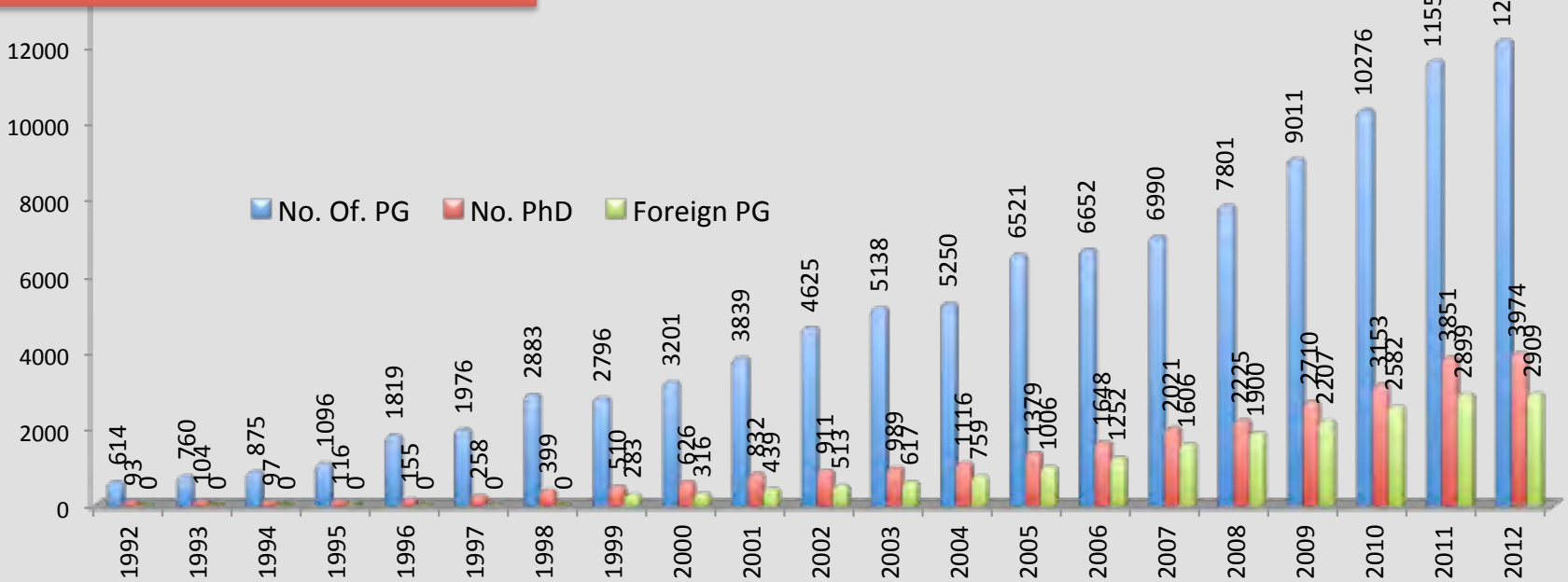
Selected Postgraduate Student Development Programs

Student Ambassadors | **USM Plagiarism Policy** |
Student Academic Support and Services | **Personal and Professional Development** |
Postgraduate Research Grant Scheme |

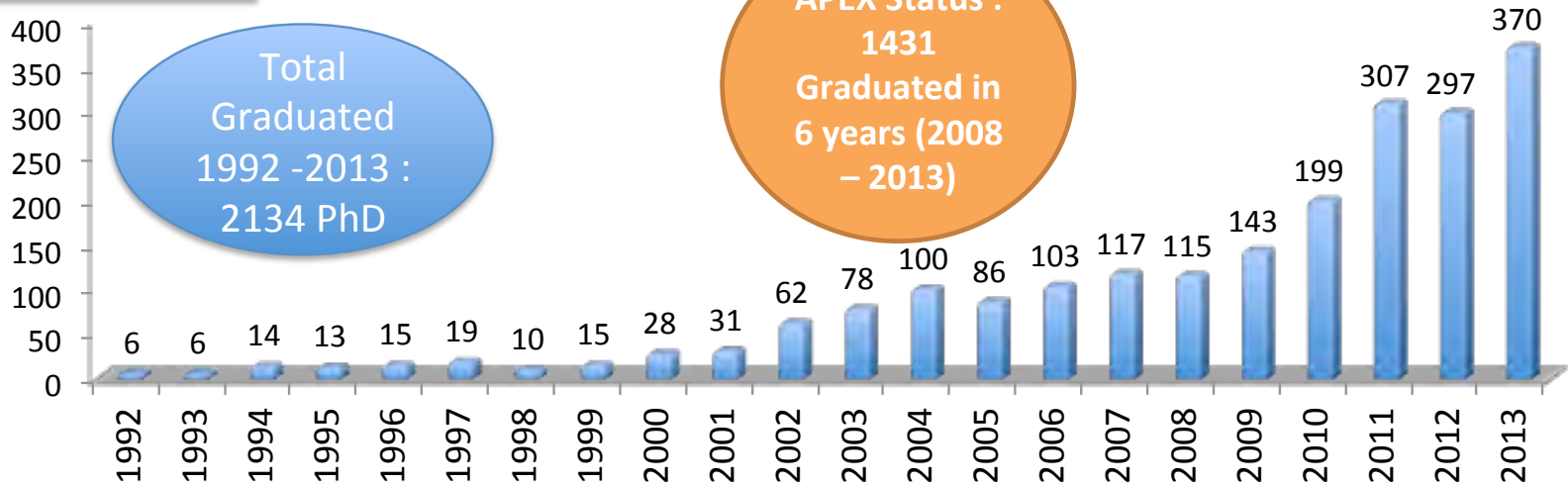
New
USM Global
Fellowship



Postgraduates Numbers in USM



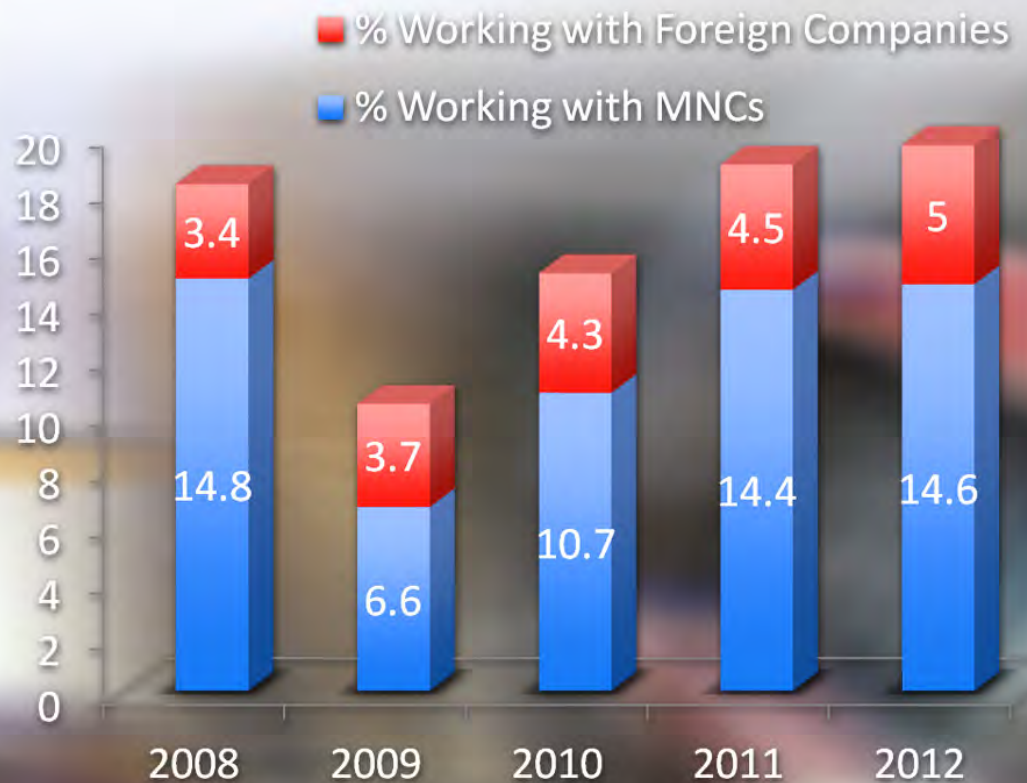
PhDs Graduated



Employment of USM Graduates in MNCs and Foreign Companies

Grooming Quality Postgraduates

- Enrollment: overall increased (2008 – 2012)
- Students from bottom billion countries increased
- Postgraduates with CGPA > 3.00, increased
- Postgraduates with external funding increased from 1.2% (2008) to 21.1% (2012)
- USM is moving towards quality rather than quantity
- Foreign postgraduates eventually to pay at cost





Number of Active Grants and Total Annual Allocation (RM) (2007 – 2012)

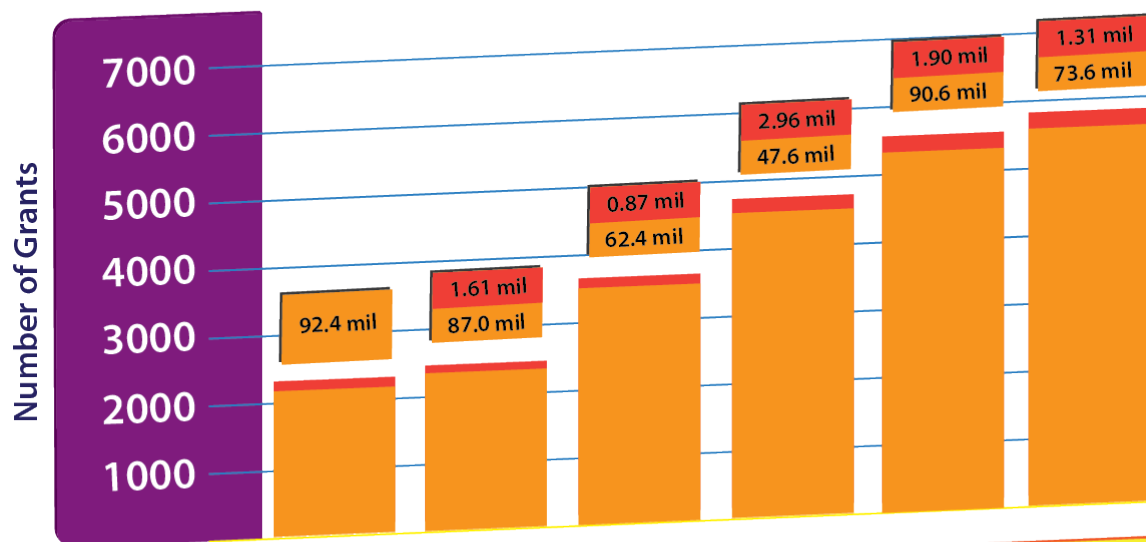
Number of Active Grants & Total Annual Allocation (RM)
(2007-2012)

Cumulative Value

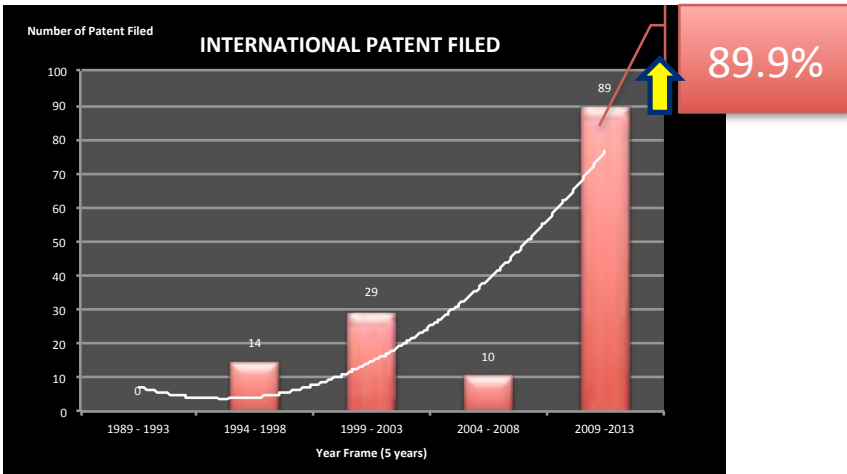
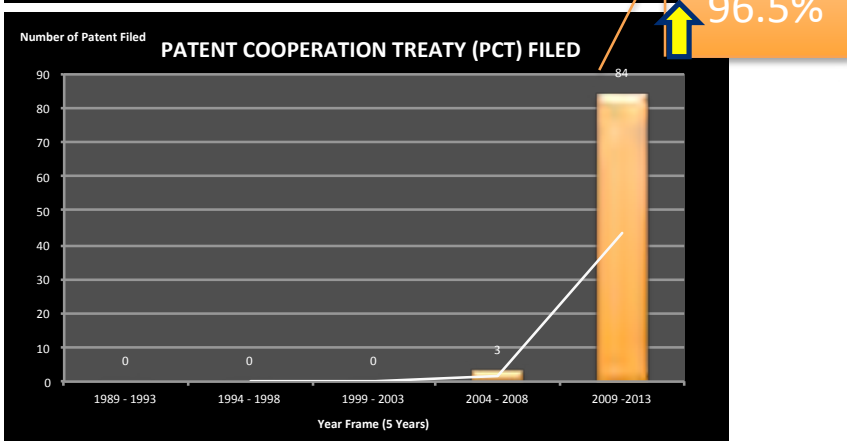
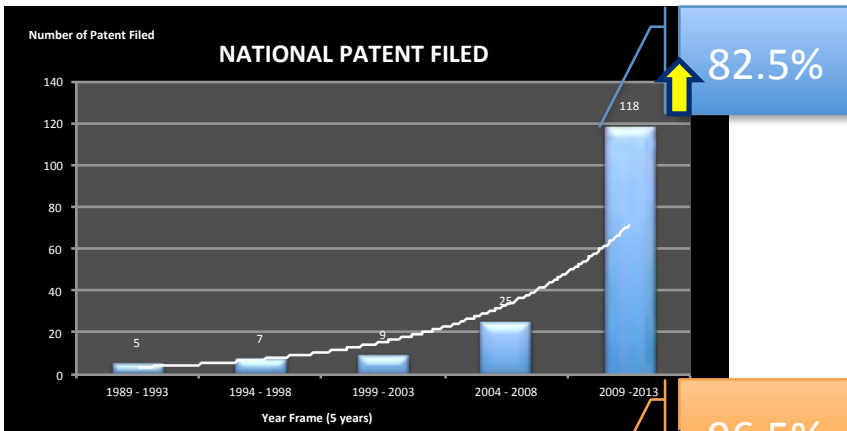
International: 9.76

Local: 463.5

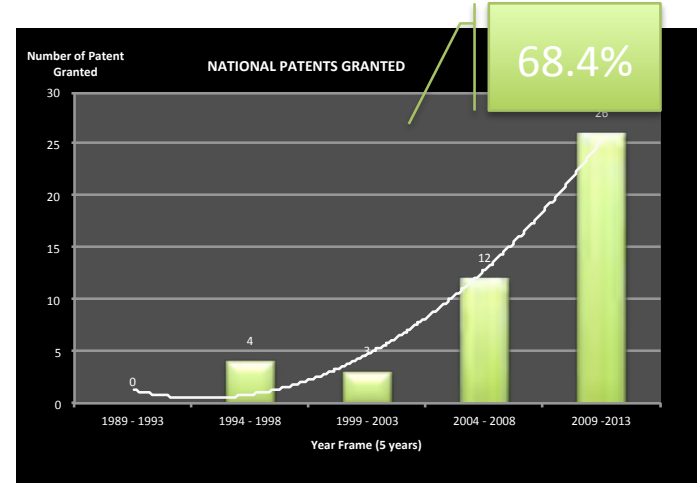
Total: 473.28



	2007	2008	2009	2010	2011	2012
International	138	126	135	180	198	196
Local	2106	2329	3576	4596	6215	6624
Total	2244	2455	3711	4776	6413	6820



USM Patents Filed & Granted



Commercialisation of USM Patents

22% of our National Granted Patents had been commercialised compared to the norm of 5%

From USM to the Market Place



- ❖ 14 out of 48 products
- ❖ Total Potential Revenue (Year 3)
RM 228.066 Mill.

National &
International
Patents Pending

247

(MAS 113, PCT 50, INT 84)

Trademarks

55

National &
International
Patents Granted

48

(MAS 32 , INT 16)

Copyright
- Publications
- Journals
- Books

Industrial
Designs

4

From USM to the Market Place – Potential Revenue of Selected Products



A Natural Colourant For The
Aquaculture Industry

RM 3.21 Million



Visco Ligno: 4-In-1 Drilling
Agent Solution

RM 118.3 Million



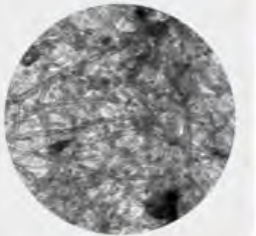
High Sensitivity, Low Cost Crack
Monitoring Device

RM 1.3 Million



A Innovative Dual-Locking
System For Motorcycles

RM 4.5 Million



Nanotube Production

RM 2.5 Million



Green Process of
Deinking Paper

RM 70.5 Million



Meliidot –
Melioidosis Diagnostic Kit

RM 1.1 Million



An Effective Process For The
Production of L-
Homophenylalanine

RM 2.3 Million

USM Performance & Achievements

Assessments	2008	2009	2010	2011	2012	2013
Malaysia Research University Assessment (MyRA)	RU Status 6 bintang (2007 – 2009)		Matured RU Status - 6 bintang -			N/R
Peer Review CAPs PSPTN	N/R	N/R	✓	✓	✓	N/R
Peer Review CAPs APEX	N/R	N/R	✓	✓	✓	N/R
SETARA	-	Tier 5 (Cemerlang)	-	Tier 5 (Cemerlang)	-	N/R
D'SETARA » Perubatan, Pergigian dan Farmasi » Kejuruteraan ; » Sains Kesihatan Hospitaliti dan Pelancongan	-	-	-	Tier 4 Tier 5	-	N/R
Generic Community Engagement	N/R	N/R	N/R	N/R	100%	
QS-WUR Ranking	313	314	309	335	326	355
Webometrics (world):	-	-	Not in top 500 Top 3 in MAS	428 Top 3 in MAS	437 No. 1 in MAS	307 No. 1 in MAS

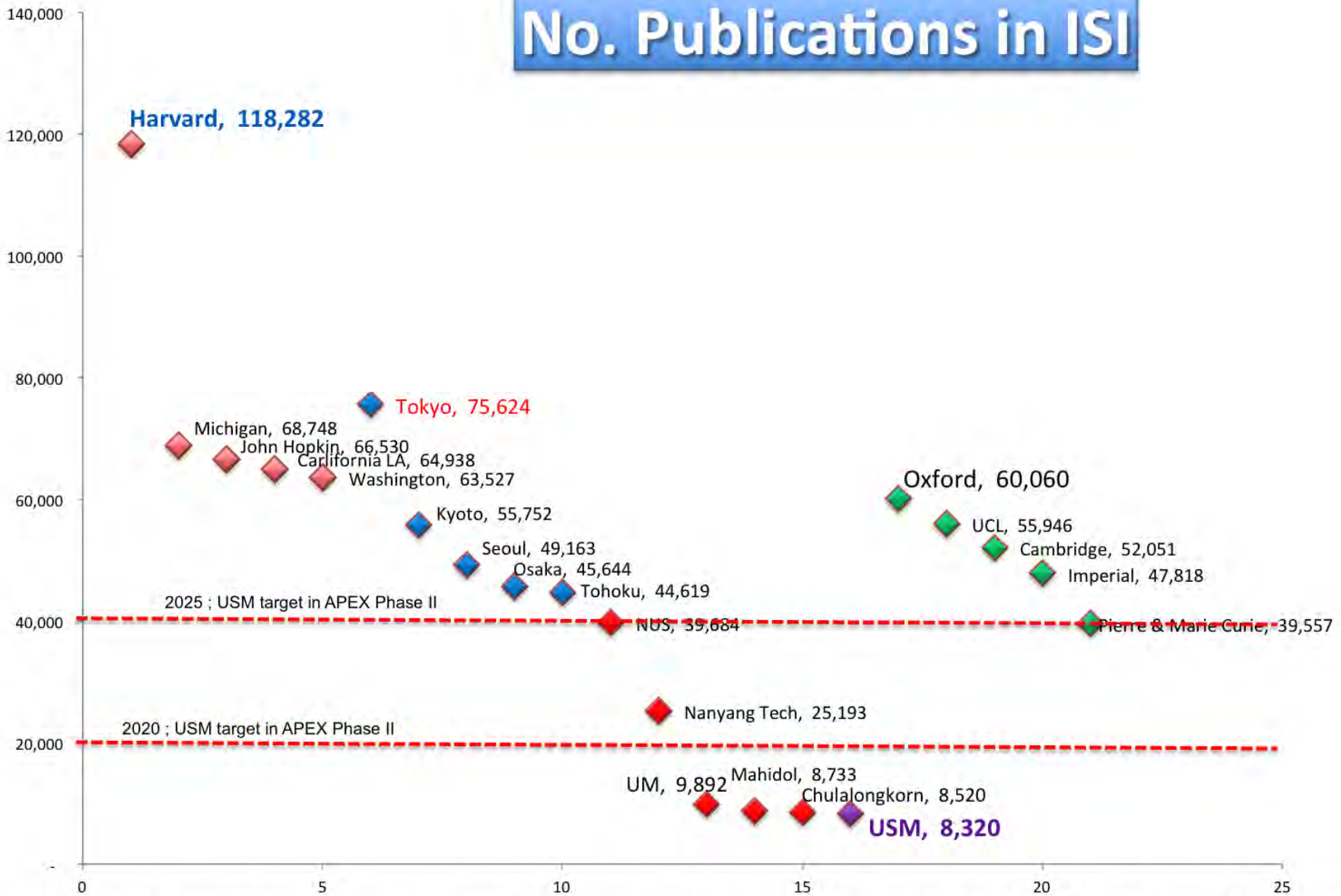
USM Performance

Faculty	Rank in the World	Rank in Malaysia
Social Sciences and Management	153	1
Life Sciences and Medicine	361	2
Natural Sciences	262	1
Engineering and Technology	169	1

Source: QS World Rankings, 2013

	2013 Leiden Ranking (Asia Region)				
	Biomedical & Health Sciences	Life & Earth Sciences	Mathematics & Computer Science	Natural Sciences & Engineering	Social Sciences & Humanities
USM	98	1	51	93	-
UM*	94	80	78	107	37

No. Publications in ISI



* Source: Essential Science Indicator, Thomson Reuters (10-year + 6-month period, January 1, 2003 – June 30, 2013)

USM in QS Subject Ranking

USM in QS Subject Ranking	Rank		
	2011	2012	2013
Environmental Studies	51-100	29	30
Chemical Engineering	51-100	51-100	38
English Language & Literature	101-150	-	151-200
Mechanical Engineering	-	151-200	101-150
Education & Training	-	101-150	101-150
Pharmacy	-	151-200	101-150
Modern Languages	-	-	101-150
Electrical & Electronic Engineering	-	-	101-150
Civil & Structural Engineering	-	-	101-150
Computer Science & Information System	-	-	101-150
Economics & Econometrics	-	-	151-200
Materials Science	-	http://www.topuniversities.com	151-200

Essential Science Indicators

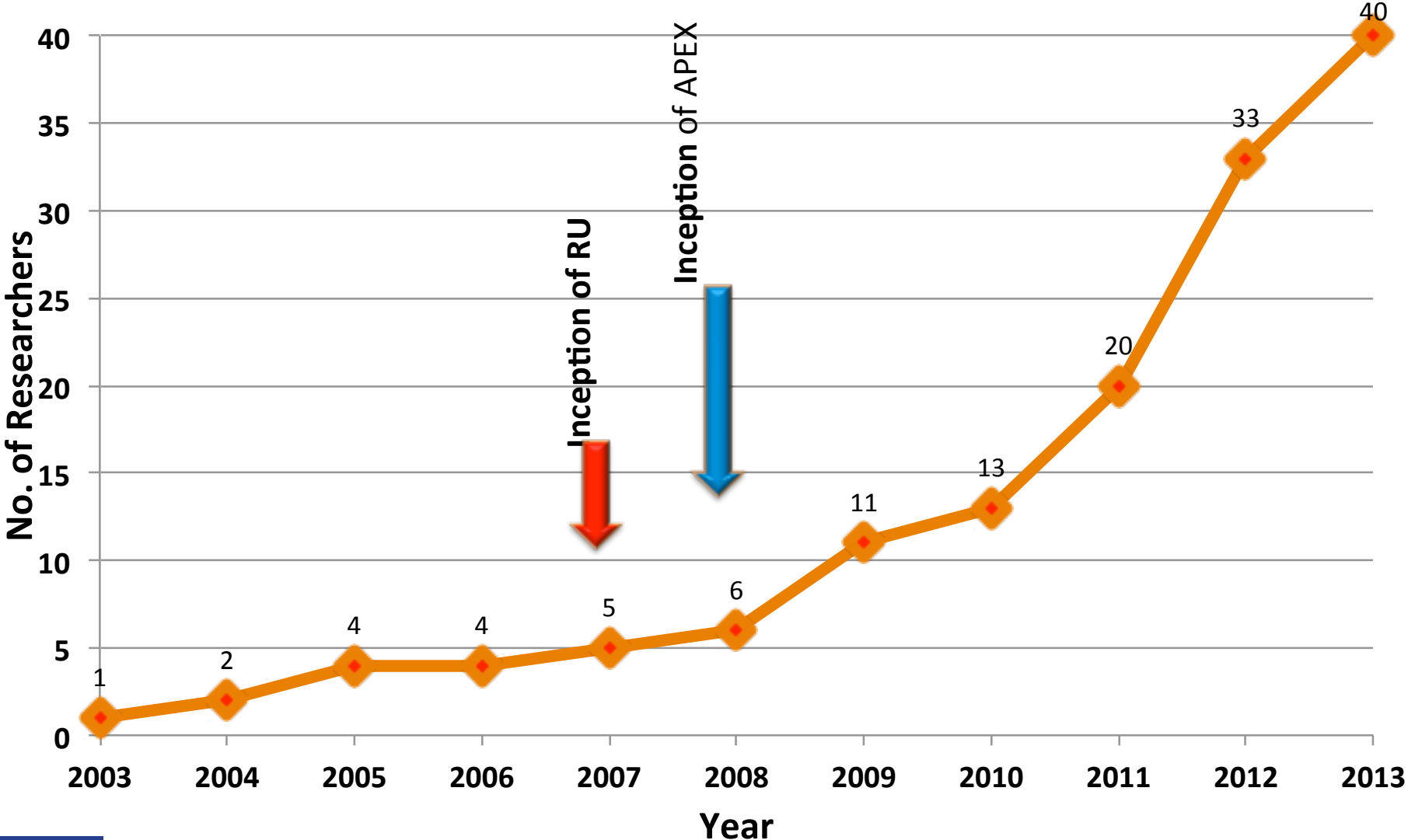
Institution	Field
USM	Chemistry, Materials Science, Engineering, Clinical Medicine, Agricultural Sciences, Environment/ Ecology
UM	Chemistry, Materials Science, Engineering, Clinical Medicine, Environment/Ecology, Plant & Animal Science, Social Sciences-General
UKM	Clinical Medicine, Engineering
UPM	Agricultural Sciences, Engineering, Plant & Animal Science
UTM	Chemistry, Engineering

Thompson Reuters

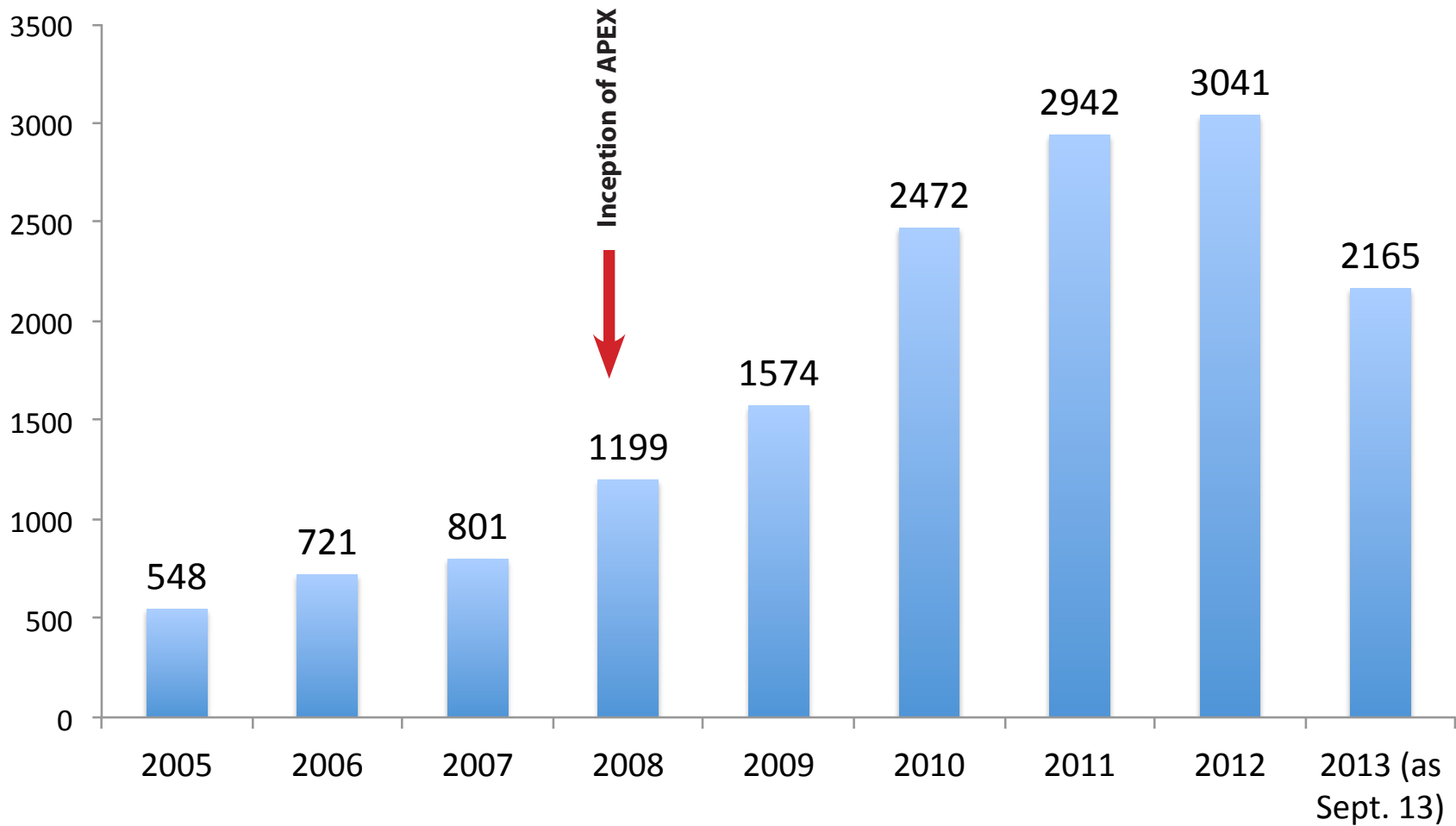


No. of USM Researchers With ISI Citations > 500

APEX Phase I

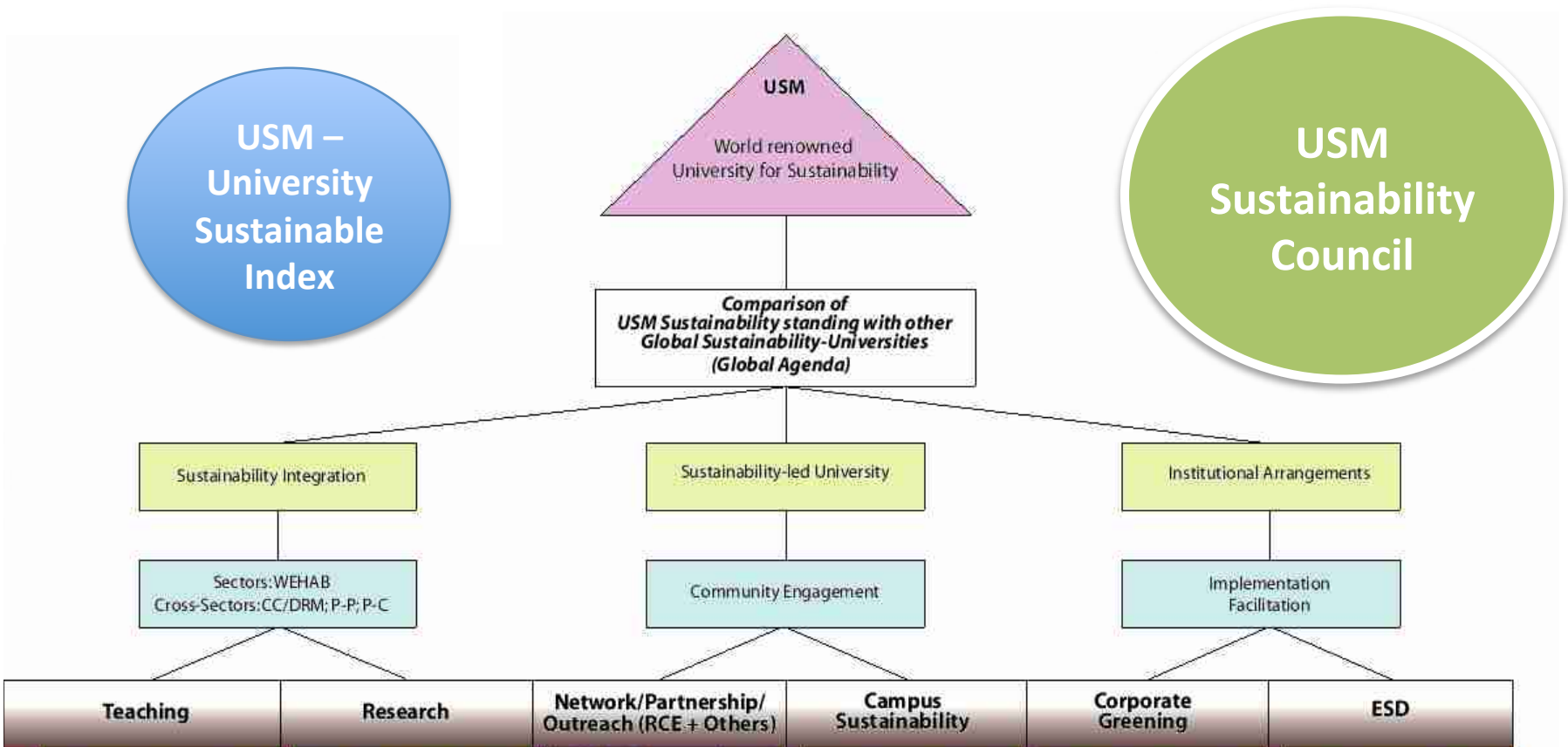


Publications In Scopus



USM APEX: Sustainability Indicators

A - Indicator Framework



Members
62
Institutions



FIJI ISLAND

The University of The South Pacific, Fiji Island



CAMBODIA

Royal University of Law and Economics, Cambodia



AUSTRALIA

Australian College of Applied Psychology
The University of Queensland



PHILIPPINES

Ateneo De manila University, Philippines
San Pedro College, Philippines



CHINA

Hong Kong Institute of Education, China



MALAYSIA

Universiti Sains Malaysia
Universiti Putra Malaysia
Universiti Malaysia Pahang
Universiti Sultan Zainal Abidin
Universiti Malaysia Kelantan
Universiti Pendidikan Sultan Idris
Universiti Malaysia Terengganu
Universiti Teknologi Malaysia
Universiti Malaysia Perlis
Universiti Utara Malaysia
Universiti Sains Islam Malaysia
Universiti Tun Hussein Onn Malaysia
Universiti Malaysia Sabah
Universiti Malaysia Sarawak
Universiti Teknologi MARA
Universiti Teknikal Malaysia Melaka
Universiti Tenaga Nasional
Universiti Pertahanan Nasional Malaysia



INDIA

St. Ann's College of Education (Autonomous),
Mangalore South India

Salesian College Sonada/Siliguri, Bengal India



PAKISTAN

Abdus Salam School of Mathematical Sciences,
Lahore- Pakistan

University of The Punjab, Pakistan



THAILAND

Thammasat University
Suratthani Rajabhat University
Walailak University
Mae Fah Luang University
Chiang Mai University
Mahidol University

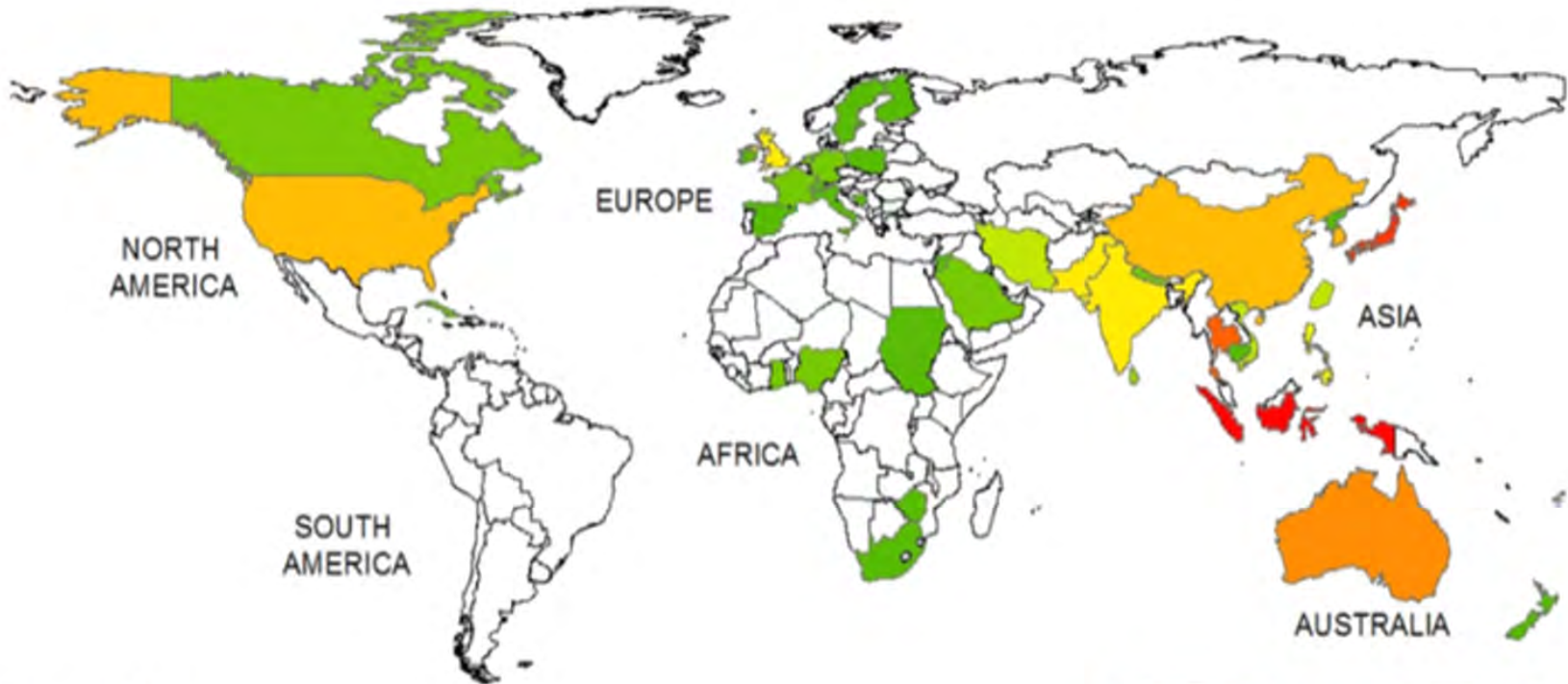


INDONESIA

Universitas Brawijaya
Universitas Pendidikan Indonesia
State University of Malang
Lambung Mangkurat University
Universitas Negeri Medan
Universitas Negeri Surabaya (UNESA)
Universitas Islam Negeri Sultan Syarif Kasim Riau
Universitas Islam Negeri Riau

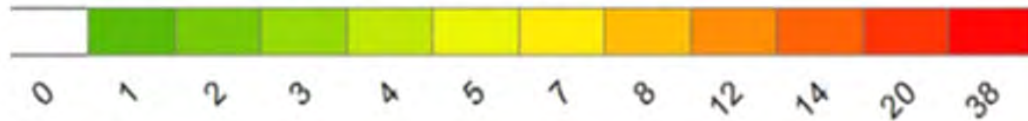
MOU & MOA with International Counterparts 2000-2013

APEX Phase I



Legend:

Total MOU USM With Other Countries



Community
engagements
with
developing
countries

Research
collaborations
with advanced
countries

USM Impacts



USM bantu bedah bibir sumbing di Indonesia

PULAU PINANG 27 Julai – Universiti Sains Malaysia (USM) sekali lagi mengambil inisiatif untuk berkongsi kepakaran di dalam caedah rawatan dan pembedahan bibir sumbing menerusi Projek Kemasyarakatan Bedah Bibir Sumbing di daerah Sawahlunto, Sumatera Barat, Indonesia.

Kali ini delegasi Pusat Pengajian Sains Pergigian USM yang terdiri daripada 40 kakitangan termasuk pakar perubatan pergigian membantu pakar pembedahan Rumah Sakit Umum Daerah Kota Sawahlunto dari aspek nasihat teknikal dan latihan bagi membolehkan mereka menjalankan pembedahan ke atas 29 kanak-kanak terasalah bibir sumbing di daerah tersebut.

Misi lima hari bermula pada 15 Julai yang diketuai sendiri oleh Naib Canselor USM, Tan Sri Dr. Dzulkifli Abdul Razak. USM turut menyumbangkan peralatan perubatan bernilai lebih RM10,000 kepada Rumah Sakit Umum Daerah Kota Sawahlunto.

Sementara itu, Dekan Pusat Pengajian Sains Pergigian USM, Prof. Dr. Mohd. Aliya Abdul Rashid Ismail berkata, misi keenam ini dijalankan dengan kerjasama Pejabat Walikota

Am I a bad parent? My child is being bullied - It's not just about the money

Friday February 14, 2014

USM proposes a Valley of Heritage

By JOSEPHINE JILLEN
josephine@thestar.com.my

50% Bonus on ALL Deposits www.Fulfil.com
Fulfil Forex Broken, True STP, Low Fixed Spreads, EU Regulated
AdChoice D

GEORGE TOWNE: Universiti Sains Malaysia (USM) has submitted a proposal to Unesco to list Lenggong Valley in Perak as a world archaeological heritage site.

This is because the area has one of the oldest prehistoric settlements in the world, USM Centre for Archaeological Research Malaysia director Assoc Prof Dr Mokhtar Saidin said.

Worked in history: Dr Mokhtar Saidin, in front, sampling for geoarchaeology, USM researchers and post-graduate students at an excavation site in Bukit Serah, Lenggong Valley, Perak.

He said the National Heritage Department had, on the university's request, sent the dossier to Unesco for review early this month.

Conclusion

Under the APEX aegis, USM intends to position itself as a world renowned university for sustainability, nurturing, learning, conducting research and providing services relevant to the future. The transformation as leading sustainability-led university will enable the orientation towards a growth and development model that focuses on safeguarding environmental and natural resources, food security, energy production as well as socio-cultural diversity and lifestyle within an engaging trans-disciplinary mode. In pursuing the path of sustainability as the way forward, we hope to embrace the protection of the multiple ecosystems, the conservation and restoration of resources, as well as heightening human and intellectual capital. USM will further position itself to facilitate the convergence

of existing and future global and universal aspirations as outlined in the mission statement, with the ultimate quest of improving the livelihood of billions at the base of the world's socio-economic pyramid.

To conclude thus far, APEX Phase 1 was about internal transformation. APEX is an accelerated program towards excellence in line with the national agenda of PSPTN. USM has delivered the desired outcomes, despite many constraints and challenges. This is reflected in the good audit results received, especially in community engagement.

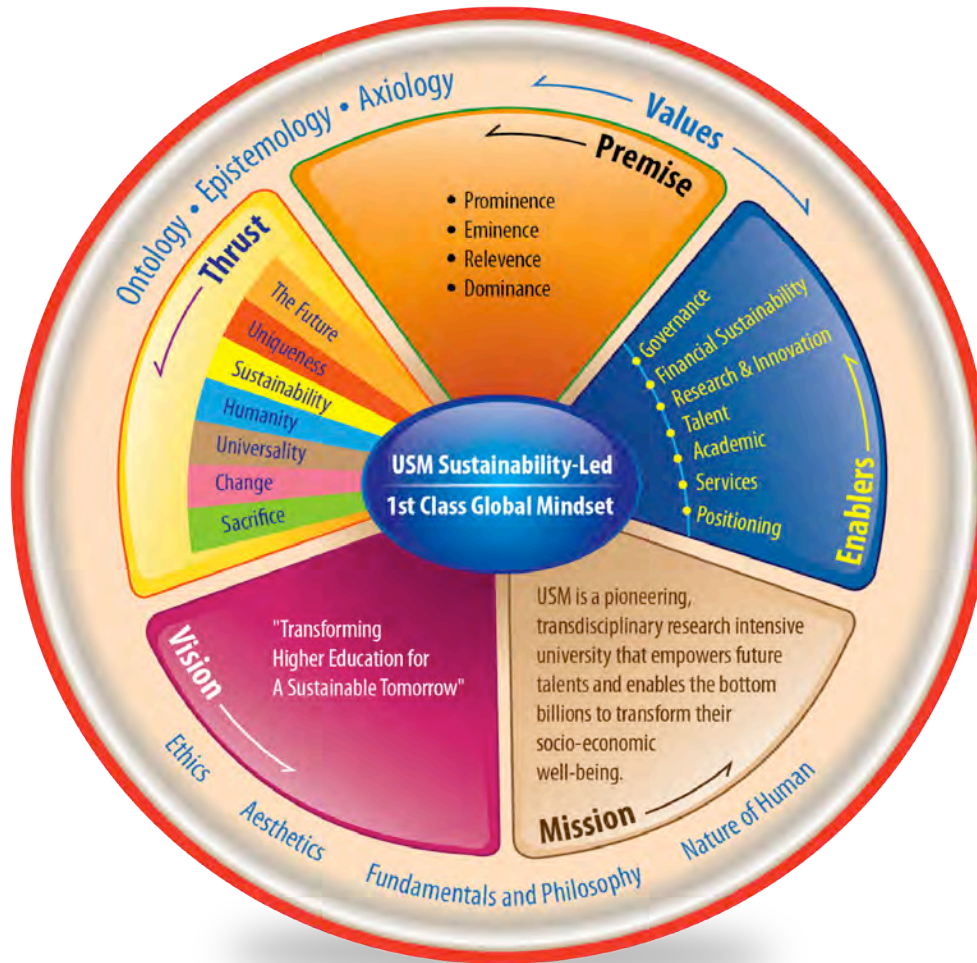


APEX Phase II

Strategies & Implementation Plans



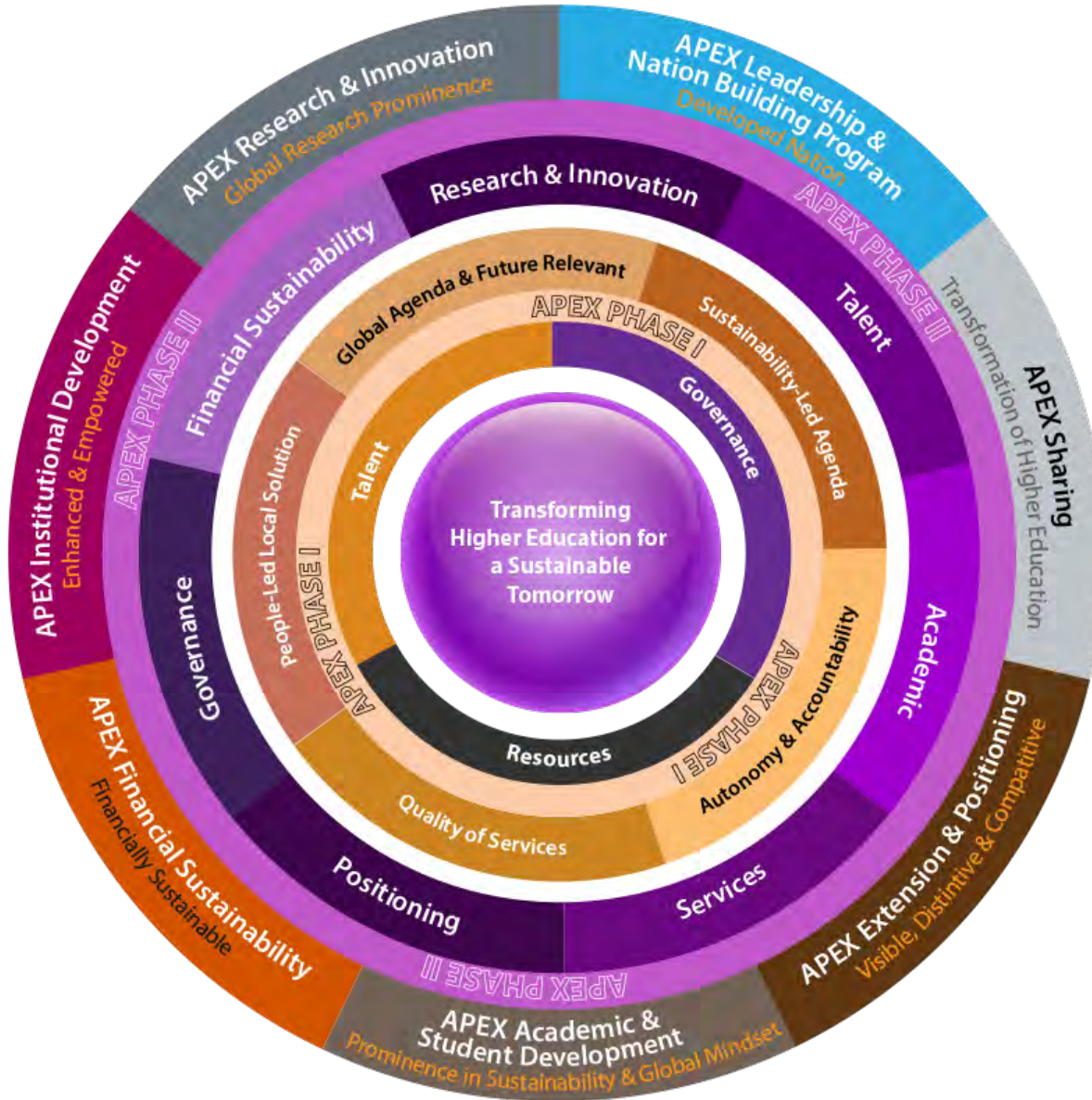
The APEX Ecosphere



Main Enablers

- Governance
- Financial Sustainability
- Research & Innovation
- Talent
- Academic
- Services
- Positioning

The Framework of APEX Phase II





Good Governance

- The main characteristic of internal good governance in Universiti Sains Malaysia **is to establish and build a good internal system that would necessitate less intervention from the Government, consequently reinforcing the autonomy status of the University.**
- It is to create an environment that ensures the University can operate **without much intervention** from any agency outside the University eco-system, and **the University management system can perform their responsibilities without much interference.**



Developing and Empowering Talent





Nurturing A Responsible Global Citizen

Strengthening and enhancing competitive edge of academic programmes

- Joint Program with universities renowned for its sustainability programmes.
- Flagship programme from each cluster with international accreditation.
- Flagship programmes with 100% of graduate employability.
- Flagship programme with English as a medium of delivery.

Enhancing Distinctive Student Experience

- Infusion of the global dimension in the curriculum design for sustainability programmes.
- Teaching and learning practices associated with global citizenship education.
- Infusion of ICT in T&L
- Curriculum design with embedded 21st century skills.
- Students possess multi-lingual language competency.
- Enhanced student mobility program.

Enhancing Global Presence & Visibility


- Increased no. of International chairs in sustainable programmes.
- Increased no. of international students for flagships sustainability-based programmes.
- Increased no. courses related to sustainability as an open educational Resources (OER).
- International Awards/ Fellowships/ Visiting Professors.
- Programme in top 10 ranking in regional/ global level.


Research and Innovation


Curiosity - Driven


People - Focused


Industry - Driven

 Generating income for the university

 Reinject the knowledge back to the teaching & learning

 Giving impact to society

 Changing technology to commercialization

 Linking industry and innovation

Financial Sustainability

OBB



Cost Recovery



Cost Rationalization



Income Generation



Efficient Asset Management



Income Generation

Expenditure



Financial Sustainability

The philosophy of Financial Sustainability is to create income and reduce cost without reducing the ability to conduct core functions



Positioning USM

- To position as the university that drives sustainability, championing the cause of the bottom billion, while achieving global prominence in research, industrial linkages and knowledge transfer.
- To achieve financial sustainability while committing to social responsibility as a public university.
- To position as the university that produces good future talent with civic consciousness.





PILLAR

APEX Research & Innovation

▶ Global Research Prominence



Achieving Global Research Prominence

- Research Icons
- Iconic Research
- Next Generation Researchers
- State-of-Art Research Infrastructure
- Research-to-market Program



P1



Iconic Research

- ▶ Selected ARIs, RUCs and LRGS will be developed into iconic research that will result in outcomes that are of high impact to the nation.
- ▶ Strategic partnership with various Ministries such as Home Ministry and also the research division of Government Linked Companies such as Khazanah Nasional, Pemodalan Nasional Berhad to conduct research that one of great value funded by both sides.



Research Icons

- ▶ Increase the number of USM researchers that are recognized as world renowned research icons in their respective field.
- ▶ Staff placement in world renowned laboratories and enhancing presence in Editorial Boards of world renowned journals.
- ▶ Nurturing young researchers in USM to become renowned through a series of seminal workshop facilitated by nobel laureates.
- ▶ The presence of world renowned research icons among USM researchers will brand USM as a world renowned research institution in selected research areas.

Research Icons

Strategy

Transform USM researchers to become research icons in their respective field of research.

Action Plan

Staff placement in world renowned laboratories and enhancing presence in Editorial Boards of top tier journals.

Milestone

Phase	Target
2014 - 2017	5% of academic staff
2018 - 2021	15% of academic staff
2022 - 2025	30% of academic staff

KPI

Percentage of academic staff being recognized as world renowned researchers.

Expected Outcome

Branding of USM as a world renowned research institution in selected research areas.

Iconic Research

Strategy

Selected ARIs, RUC and LRGS will be nurtured to iconic research that will result in outcome that can has high impact to the nation. High impact outcomes are defined as either policy implementation or commercialization with revenue exceeding RM 1 mil or increasing the income per capita of the bottom billions.

Action Plan

Create strategic partnership with various Ministries such as Internal Affairs Ministry and also the research division of Government Linked Companies such as Khazanah Nasional, Pemodalán Nasional Berhad to conduct iconic research funded by both sides.

Milestone

Phase	Target
2014 - 2017	3 iconic research projects
2018 - 2021	5 iconic research projects
2022 - 2025	10 iconic research projects

KPI

Research outcomes that can contribute strictly to one of the following; policy implementation or commercialization revenue exceeding RM 1 mil or increasing the income per capita of the bottom billions.

Expected Outcome

Making USM is research relevant to nation building.

State-of-Art Research Infrastructure

- ▶ Partnership between public and private institution to upgrade and maintain state of the art laboratories.
- ▶ Source of funding will be a win-win partnership between public and private sector for shared state of the art facilities
 - ◆ CCB
 - ◆ Doping Centre & CAATS
 - ◆ INFORMM
 - ◆ Brains Science

P1

Upgrading & Maintaining State of The Art Infrastructure

Strategy

Partnership between public and private institutions to upgrade and maintain state of the art laboratories.

Action Plan

Source of funding will be win-win partnership between public and private sector for shared state of the art facilities.

Milestone

Phase	Target
2014 - 2017	1 Public and 1 Private
2018 - 2021	1 Public and 2 Private
2022 - 2025	1 Public and 5 Private

KPI

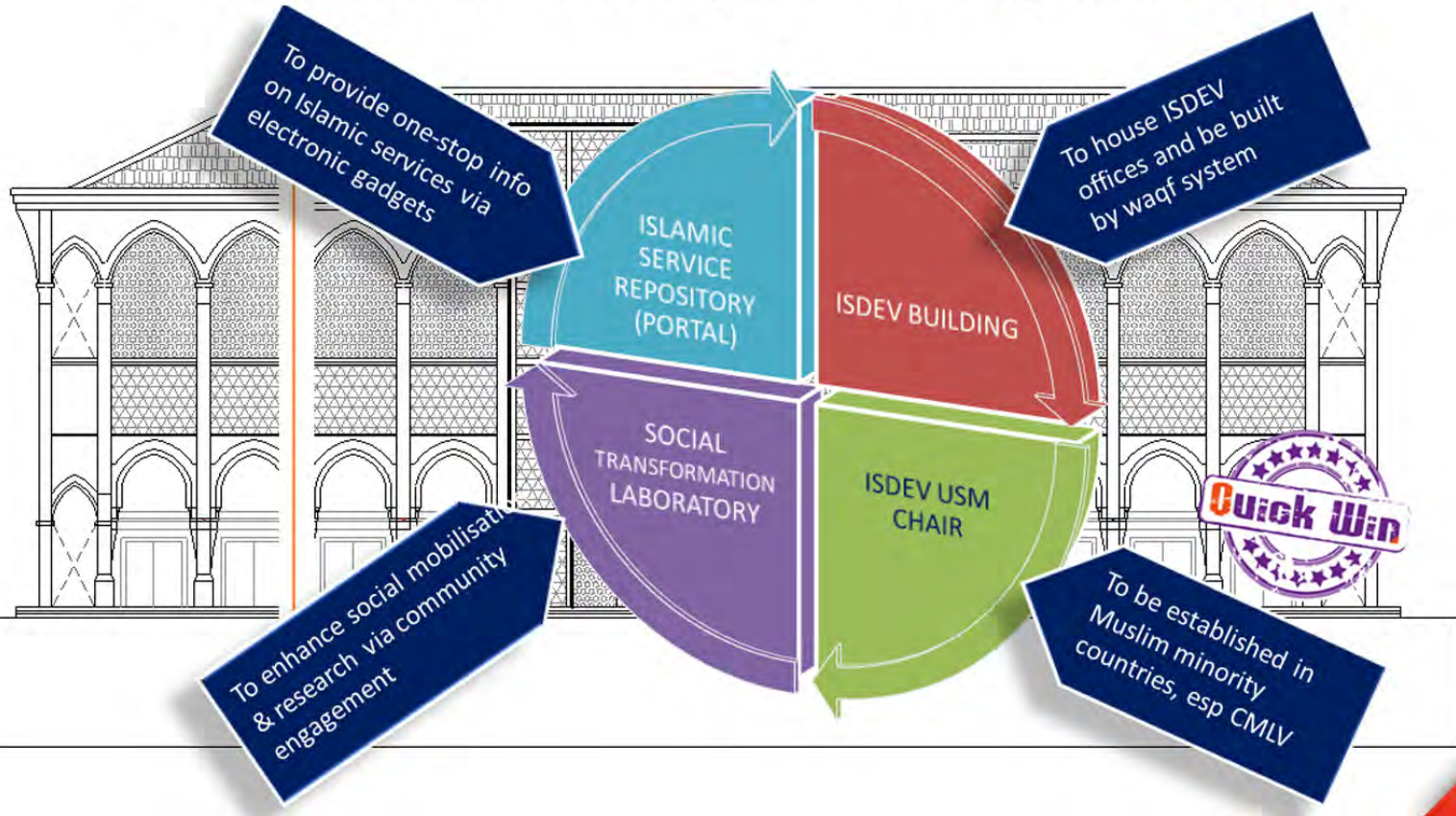
Number of state of the art laboratories .

Expected Outcome

Research laboratories able to support frontier research.

ISDEV

Centre for Islamic Development Management Studies



P1

Center for Global Archaeological Research (CGAR): Mapping the Ancient Gandhara Civilization at Peshawar, Pakistan

CGAR, in collaboration with the Institute of Archaeology and Anthropology, University of Peshawar, has embarked on mapping the ancient civilization at the Gandhara Archaeological Site at Peshawar, Pakistan. Focusing on early Hindu-Buddhist civilizations, initial findings have pointed to signs of a civilization dated as early as 20,000 years ago, based on recovered artefacts.

Hinging on this discovery, CGAR is now geared towards mapping of magnetic anomalies in reconstructing the palaeoenvironment of the Gandhara civilization within the Kashmir Smast site.

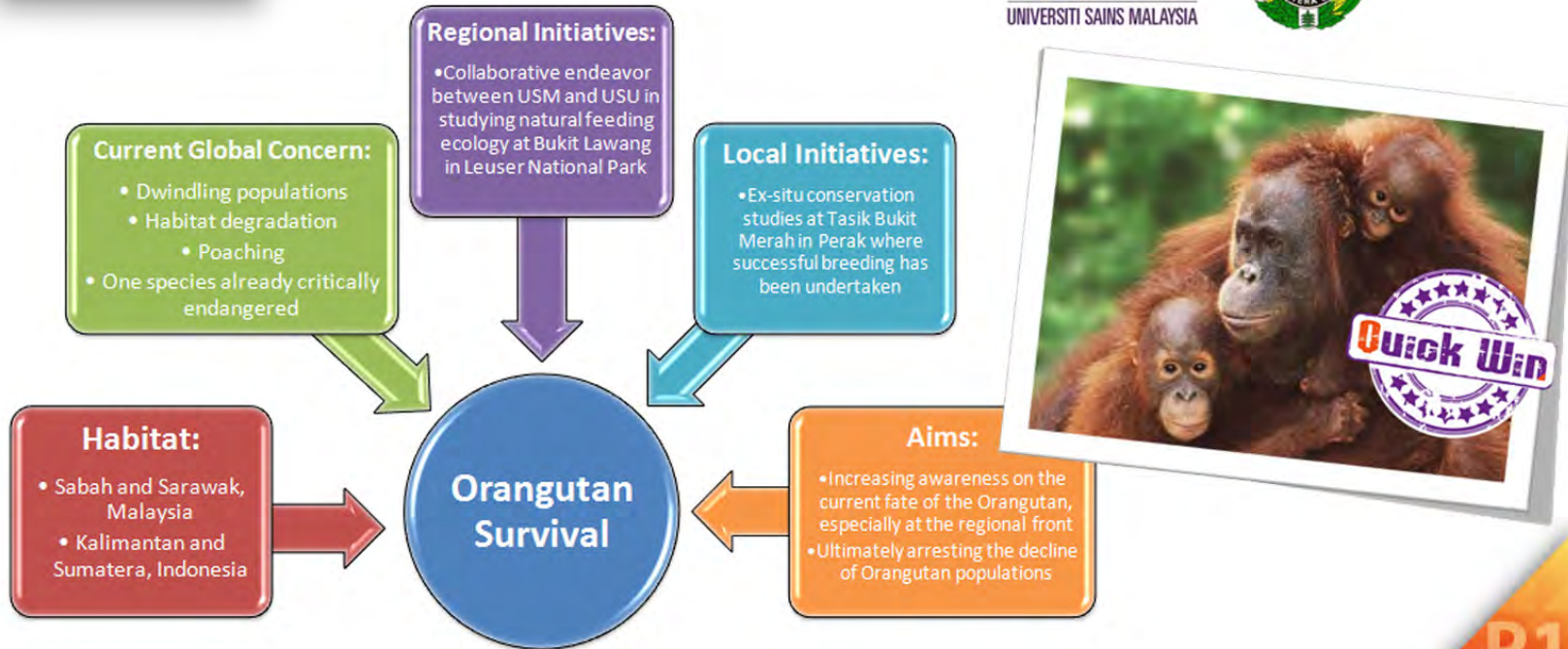
This latest CGAR endeavour follows the previous successful archaeological forays at Aceh, Indonesia and Visoko, Bosnia Herzegovina.



P1



Survival of the **ORANGUTAN**: Addressing declining populations in Malaysia and Indonesia



P1

PILLAR

2

APEX Leadership and Nation Building Program

▶ Developed Nation



APEX Leadership and Nation Building Program

APEX Phase II

Pillar 2

► Developed Nation

APEX Leadership and Nation Building Program





APEX Leadership and Nation Building Program

APEX Phase II


► Developed Nation



APEX School

Malaysia Education Blueprint - 11 Shift


PRIMARY & SECONDARY EDUCATION



APEX College

PSPTN
7 Trust
23 CAPs

TERTIARY EDUCATION



APEX Scholar

POSTGRADUATE EDUCATION

APEX Leadership and Nation Building Program

APEX Phase II

Pillar 2

► **Developed Nation**



**APEX
Scholar**

The Goal

To nurture a selected group of students, based on strict selection criteria, to be a well-rounded intellectual, and highly talented and innovative human capital that will serve as nation builders.

The Programme

A strategic, holistic, trans-disciplinary and multidisciplinary student intellect and leadership development programme, aim to;

- ▶ nurture highly motivated and talented students aim at developing both intellect and character of students.
- ▶ develop them into potential future leaders and thinkers with global mindset.
- ▶ enhance the **complete educational experience** and provide invaluable future career and personal growth opportunities.
- ▶ A collaborative programme involving Office of Student Development, Students Residents, Schools, International Office, Centre for Development of Academic Excellence, industry and external partners.
- ▶ Provide the opportunities for student to resolve real world or complex problems from different perspectives on problems
- ▶ Apart from the normal curriculum, Apex scholar will have to take a specially designed multidisciplinary modules (APEX Scholar Modules) using beyond the classroom learning experience to nurture and inculcate the defined distinctive skills and values.
- ▶ Apex Scholar are required to spend one semester in reputable universities abroad and engage in a wide range of international programmes, designed to cultivate the global mindset.
- ▶ APEX scholars will form a vibrant community of learners and leaders who challenge each other to explore new ideas and new possibilities.

- ▶ They will engage in a continuous intellectual discourse through collaborative and engaging peer activities.
- ▶ They will have the opportunities to engage in intellectual discussions with policy makers, prominent researchers, and business and thought leaders.
- ▶ APEX scholars are eligible to attend conferences, symposia, special field trips
- ▶ They will actively participate in scholarly as well as extra curricula and community outreach (extension) activity, aimed to build the leadership, scholarship and other distinctive attributes.

USM APEX GLOBAL FELLOWSHIP

This is a specific undertaking to attract exceptional undergraduate talent from the world over to Malaysia to pursue their post graduate studies at USM. This project is expected to increase nation building and community synergy through the participation of global talents.



IF YOU VIEW THE WORLD DIFFERENTLY, WE WANT YOU

The USM Global Fellowship is open for application to all nationalities across the globe who aspire to pursue full time Doctoral studies in various research fields with Universiti Sains Malaysia.

USM GLOBAL FELLOWSHIP



APEX Leadership and Nation Building Program

► **Developed Nation**

APEX Phase II

Pillar **2**



APEX College

This is a preparatory college to groom students for USM undergraduates programmes. The college will offer pre-U programmes using specially designed curriculums, benchmarked and modelled after International Baccalaureate (IB) World School.

USM will collaborate with MARA and other private institutions which offer pre-U and matriculation programmes.

Each year USM will produce about 500 students for various fields namely Medical and Health Sciences, Pharmaceutical Sciences, Liberals Arts, Accounting and Finance, Economics, etc

Besides the APEX College program, USM will also link up with selected secondary schools in a support program called the APEX School program

Outcomes:

2014-2017	2018-2021	2022-2025
500 students x 4 years	500 students x 4 years	500 students x 4 years

APEX COLLEGE

Introduction :

In today's globalized economy and as the world is becoming more borderless, the job market is becoming increasingly global. Globalized businesses require talent to compete at the global level. In fact, government agencies too are becoming global in nature. A global graduate is not simply a highly educated young adult who can speak foreign languages. Employers want talented graduates who can work with people from different backgrounds and embrace different perspectives. Competition is becoming increasingly stiff on the job market where employers will seek graduates who are well equipped for the global market.

The APEX University was envisioned to nurture, groom and produce nation builders and future leaders of various fields with global mindsets.

Project Name

APEX College

Objective And Strategy

This is a preparatory college to groom, prepare and produce students for USM undergraduate programmes. The college will offer pre-U programmes using specially designed curricula, benchmarked and modelled after the International Baccalaureate (IB) World School.

Implementation Plan

USM will collaborate with MARA and other private institutions which offer pre-U and matriculation programmes.

Output

Each year USM will produce about 500 students for various fields namely Medical and Health Sciences, Pharmaceutical Sciences, Liberals Arts, Accounting and Finance, Economics, etc

Milestones

2014 - 2017	2018 - 2021	2022 - 2025
500 students x 4 years	500 students x 4 years	500 students x 4 years

Conclusion

This program is planned as a special admissions programme to function as a feeder for the APEX University. This is part of long term strategy to produce students with global mindset beginning with a special pre-University programme at APEX Colleges.







PILLAR

3

APEX Sharing

▶ Transformation of Higher Education



APEX Sharing

Transformation of Higher Education



Transformation of "Rakan RU" to RU



APEX Governance Best Practices



APEX Knowledge Transfer Program



TRANSFORMATION OF “RAKAN RU” TO RU

Strategy

Transforming a “Rakan RU” (non-RU) University into a full-fledged Research University.

Action Plan

To become the mentor and provide non-monetary support to an identified “Rakan RU” University to enable it to achieve Research University status.

Milestone

Phase	Target
2014 - 2017	Rakan RU achieving 65% MyRA score for RU status
2018 - 2021	Rakan RU achieving 80% MyRA score for RU status
2022 - 2025	Rakan RU achieving 100% MyRA score for RU status

KPI

APEX University contributes actively to the creation of one additional full-fledged RU status university.

Expected Outcome

Increase the number of RUs in Malaysia capable of training researchers for knowledge based economy.

APEX GOVERNANCE BEST PRACTICES

Introduction

Governance has been identified as one of the pillars in transforming Universiti Sains Malaysia to greater heights and status. It is considered as one of the routes and a “must have” criteria towards achieving greater autonomy as well as to ensure greater integrity and transparency.

Universiti Sains Malaysia has always embedded the characteristics of good governance as its transformation catalyst for the USM-APEX way forward. The main objective of internal good governance in Universiti Sains Malaysia is to establish and build a good internal system that would necessitate less intervention from the Government, hence enhancing the autonomous status of the University.

The transformation of Universiti Sains Malaysia’s governance has commenced with 3 key activities, namely:

- a) Services, administration and financial;
- b) Nurturing and learning; and
- c) Research and innovations.

To start with, via the gazetting of USM APEX Constitution, the University has achieved semi-autonomy and powers of discretion for the following:

- a) Liberty to implement income generating measures;
- b) Student Parliament;
- c) Appointment of Professors to the Senate, and comprehensive TOR on the selection (elected members are equal in numbers with the appointed members)
- d) Two independent representatives of Senate to be in elected to the LGU;
- e) Appointment of Heads of PTJs through Nomination and Consultation. We have developed a comprehensive procedure for the consultative process.
- f) Unlocked a number of important matter related to financial bureaucracy;
- g) Liberty has been granted to USM to create additional posts;
- h) Anyone can attend LGU meetings upon invitation by the Chairman (eg. KKA, PKAP, students’ leaders etc.);
- i) The Posts of Internal Auditors, Legal Advisor and Ombudsman have been created to ensure that checks and balances, accountability, transparency and transformation are achieved;
- j) Whistleblower Protection;
- k) Student admissions;
- l) Separation of powers on Student Discipline.

Towards an Accountable Autonomy and Governance

	List of Projects
a	University's APEX Constitution
b	APEX University's Constitution on Statutes
c	Repositioning Schools, Academic Centres, Academic Centres of Excellences, Research Centres of Excellence, Non-Academic Centres, Community Centres in accordance with the University's Constitution
d	Human Governance (<i>Governan Insani</i>)
e	Full Autonomy
f	Students' Discipline Rules with freedom to be involved in politics outside the campus
g	Good Governance Structure with complete Documentation for all Schools/ Centres/ Institutes and Departments
h	Empowerment
i	Management Operation Committee (<i>Jawatankuasa Pengurusan Operasi</i>)
j	Sustainability Council (<i>Majlis Kelestarian Universiti</i>)
k	Research Council (<i>Majlis Penyelidikan Universiti</i>)
l	Governance Committee

Objectives and Strategy

a) APEX University Act

USM's APEX Act will take into account all the terms, the mechanism and the best elements of governance and autonomy required by a world class university. The APEX Act may transcend existing rules so long as it does not contravene the country's existing laws, acts and provisions.

The APEX Act will strengthen USM's autonomy by adding the dimension of accountability. Thus, the mission to have the APEX Act must be a priority to ensure future excellence.

b) USM APEX Constitution and Statutes

The USM APEX Constitution is an initial platform towards achieving autonomy in line with the resolutions of the Ministry of Education. The APEX Constitution and Statutes will provide the necessary assistance so that USM can be transformed into a distinguished university under the APEX program. The APEX university status is an important agenda for the government to uphold its national higher education plan.

c) **Repositioning Schools, Academic Centres of Excellence, Research Centres of Excellence, Non-Academic Centres, Community Centres in accordance with the University's Constitution**

The University shall ensure that the vision and mission of the University are achieved and the University's governance, at the same time, remains the most accurate and of the highest standard. Its impact will boost the University's position as one of the world's best universities and enhance the ability of the country to attract experts or the best workforce in the world.

d) Human Governance (Governan Insani)

Human Governance will help the University to make decisions that will benefit the stakeholders and society at large. Upholding values in the decision-making process and ensuring autonomy with accountability will help to build a culture of self governance and trust based upon principles of human governance. This will foster personal fulfillment on an individual level and mutual respect in the community, leading to success for the University.

e) University's Full Autonomy

In order to achieve full autonomy, the University must show that it is ready to implement good governance and integrity which are the important pillars in the management of any entity. The University ensures that it has the financial, management and administrative policies and procedures for declaration of interests in any situation where decisions may give rise to conflict of interest, unfairness, manipulation, misrepresentation, undue influence and abuse.

f) Student Discipline Rules with freedom to be involved in politics outside campus

One of the APEX projects is the reorganisation and drafting of disciplinary rules and regulations for University students, with special provisions to allow them political freedom outside the campus.

g) Good Governance Structure with complete Documentation for all Schools/ Centres/ Institutes and Department.

All schools/ centres/institutes/departments will have the best governance structure with full documentation to ensure the smooth process of governance. For example each PTJ will have documents that detail the establishment of the Schools/ centres/institutes/departments and what are the terms of reference for the Schools/ centres/ institutes/departments. With complete documentation, there would be no more doubts about the validity of legislation in terms of the establishment of the Schools/ centres/institutes/departments and the parameters of their jurisdiction and function.

h) Empowerment

USM is serious on ensuring the empowerment of all PTJs whereby the Deans, heads and directors of the Schools/centres/institutes/departments will be given empowerment with accountability to carry out their tasks and responsibilities. Such empowerment along with the attending checks and balances requires accountability and the impact of this project will be to speed up the processes of operation and implementation of tasks by the University.

i) Management Operation Committee

The Management Operations Committee is a committee that is chaired by the Registrar to oversee and ensure that all operational processes in all campuses of Universiti Sains Malaysia are implemented in an efficient and orderly manner. The Management Operations Committee is responsible for reporting on matters involving the University to the Management Committee of the University.

j) University Sustainability Council (Majlis Kelestarian Universiti)

The University has established the University's Sustainability Council to ensure that the mission and vision as a sustainable University will be achieved by 2020.

k) University Research Council (Majlis Penyelidikan Universiti)

The Cabinet had proposed the setting up of a University Research Council in each research University. The University Research Council has its own precise terms of reference and consists of two members from the Board of Governors of the University and two from the industry outside of Universiti Sains Malaysia. The Vice Chancellor chairs the University Research Council.

I) Governance Committee

- i. *Jawatankuasa Gangguan Seksual*
- ii. *Jawatankuasa Penilaian Kerja Luar*
- iii. *Jawatankuasa Penilaian Tindakan RLKA/RPTKA*

These committees will help to ensure the proper governance of the University and to ensure that the interests of the University are always protected.

Implementation Plan and Output

It cannot be denied that many reputable universities in the world are built on a culture of good governance and autonomy. These world class universities acknowledge that through supportive governance, an autonomous university with strong accountability and transparency will enhance quality teaching, research and effective management and administration.

As such, it is timely and essential to for USM to act now to establish clear governing principles which include administrative representations, students' representation and representation by external entities.

A classic case law precedent can be seen in *Mckinney v. University of Guelph* [1990] 3 S.C.R. 229:

The Lordship in the case held that "The universities are legally autonomous. They are not organs of government even though their scope of action is limited either by regulation or because of their dependence on government funds."

The Lordship further elaborated that "Each has its own governing body, manages its own affairs, allocates its funds and pursues its own goals within the legislated limitations of its incorporation. The government has no legal power

to control them. Their legal autonomy is fully buttressed by their traditional position in society. Any attempt by government to influence university decisions, especially decisions regarding appointment, tenure and dismissal of academic staff, would be strenuously resisted by the universities on the basis that this could lead to breaches of academic freedom.”

In short, the primary purpose of governance is to create an environment that ensures the University can operate without much intervention from any agency outside the University eco-system, the respective leaders within the University management system can work without much interference from the University’s higher authorities, while ensuring proper checks and balances, integrity and transparency to encourage responsible, accountable and ethical behaviour among the warga University.

Milestones

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
a) APEX ACT											
b) APEX Constitution and Statutes											
c) Repositioning Schools, Academic Centres of Excellence, Research Centres of Excellence, Non-Academic Centre, Community Centre in accordance with the University's Constitution											
d) Human Governance (Goverman Insani)											
e) Full Autonomy											
f) Students' Discipline Rules with freedom to be involved in politics outside campus											
g) Good Governance Structure with complete Documentation for all Schools/Centres/Institutes and Department											
h) Empowerment											
i) Management operation committee (Jawatankuasa Pengurusan Operasi)											
j) Sustainability Council (Majlis Kelestarian Universiti)											
k) Research Council (Majlis Penyelidikan Universiti)											
l) Governance Committee (Jawatankuasa Governan)											

Conclusion

The University's roadmap for good governance is on a firm footing and various mechanisms are in place to provide checks and balances to mitigate potential risk and deliver quality services to its stakeholders. However, to enhance the effectiveness of good governance and integrity in the University, some improvements and initiatives are imperative such as:

- i. Draw up clear criteria and attributes for all the committees in the University;
- ii. Documentation needs to clearly set out the selection process for the appointment of the Board and senior management officers of the University to ensure greater transparency and fairness in paving the way for a high performing Board.



APEX KNOWLEDGE TRANSFER PROGRAM



Local
Knowledge

Knowledge
Science

Knowledge
Transfer

Postgraduate
Centre

Special program that supports collaborations between universities and industries, communities, government, and NGOs through exchange of tangible and intangible intellectual properties, expertise, learning and skills between academics, industrialists and community. USM is the host secretariat.

APEX KNOWLEDGE TRANSFER PROGRAM

- ▶ Knowledge Transfer Programme (KTP) is a programme that supports collaborations between universities, industries and communities (government agencies/non-governmental organisations (NGOs)/ public sector). Exchange of tangible and intangible intellectual property, expertise, learning and skills between academia, industry and the community are the platform provided by KTP. The forms of interaction include joint research, consultancy, education, training, graduate development, conferences, sharing of physical facilities, student placements and others.
- ▶ To partner all government institutions, public agencies, industries and communities.





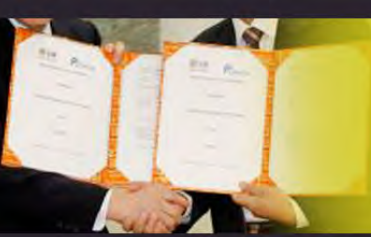


4

PILLAR

APEX Extension & Positioning

▶ Visible, Distinctive and Competitive



APEX Extension and Positioning

Visible, Distinctive and Competitive

APEX Extension & Positioning

Extension

- CE for Displaced Community
- Education for Underprivileged

Positioning

- Positioning for global Prominence
- Strategic global events
- USM as Regional Conduit

- Collaboration between USM and the Sir Walter Murdoch University
- AGROtecture
- Green Technology Institute



CE for Marginalized Community

Being Relevant

- USM Prihatin Initiative
- Flagship Projects
- Promotional and Capacity Building Initiatives
- University Community Engagement Conference (USM as driver)
- Asia Pacific University-Community Engagement Network (APUCEN)
- Centre for Community Network (CCN)

In tandem with USM's vision of empowering marginalised communities, the CE initiative initiative is designed to leverage on the inherent strengths of USM and galvanizing these resources towards transmuring lives as well as remolding and transforming societies for a better future based on the ideals of the 'Insaniversiti' and sustainability



CE FOR MARGINALIZED COMMUNITY

Introduction

The term 'community engagement' can mean many different things to different stakeholders. In the Universiti Sains Malaysia (USM) context, Community Engagement (CE) refers to the process by which USM's staff and students nurture symbiotic relationships shaped by a collaborative vision to benefit target communities. Basically, CE involves joint identification of problems, planning of strategies, and the combined mobilisation of resources to transform the psycho-socio-economic well-being of target communities. CE is a bi-directional process that involves community synergising its manpower base with the expertise, facilities and knowledge database of the university to affect a more holistic economic and social transformational impact on target groups. In return for such collaboration, the university obtains both quantitative and qualitative data feedback that could serve as input in the design of more effective transformational collaborative programs in the future. We also train people with holistic outlook and humanitarian heart. Elements for effective engagement include synergistic partnership, altruistic commitment, and project sustainability allied to the tenets of cooperation, the objectives of cross-disciplinarity and the ideals of humanity.

The principles of CE are in line with USM's cherished vision of empowering the disadvantaged and marginalised within the framework of a sustainable tomorrow. It is a testimony to our noble ideals of reshaping tertiary education as an 'Insaniversiti', and CE plays a prominent part in positioning USM. The ultimate goal is the collective mobilisation and orchestration of the strengths of USM academia, administrative staff and the student body to collaborate as a synchronised whole, working to transmute lives, remold and transform societies for a better future. USM believes that in order to remain relevant, community needs to be transformed - it is a call for massive social, educational, technological, environmental, cultural and behavioural transition through new approaches of delivering a more sustainable social impact university-community initiative a liveable tomorrow.

Benefits of Community Engagement to USM

Engagement is both multifaceted and multidimensional and incorporates an array of intergrated projects, activities and programme that provide value for all involved. Genuine and effective community engagements will benefit USM and the community. In general, engagement allows USM to tap wider sources of information, perspectives and potential solutions. University-Community engagement activities can significantly enrich students' experiential learning experience while contributing to the broader community. This will enhance USM's visibility and social standing in society. Currently, USM is moving community engagement to the next level by propagating Innovation in Community Engagement which is simply defined as transforming underutilised knowledge, resources and all

the common good that universities advocate for the well being of community and eventually lead to sustainable future. It is deemed as moving towards another stage in Community Engagement in championing the societal issues

USM Prihatin Initiative

USM Prihatin Initiative

- (a) Short-Term/ Long -Term Projects
- (b) Ad hoc Projects

Objective & Strategy

- ▶ To address the economic, social-cultural, educational, health and environmental issues affecting the Bottom Billions and in the process inculcate in them the idea of sustainability.
- ▶ To contribute towards and lead in the sustainability of the social and economic development, advancement and transformation of the nation.
- ▶ To empower future talents to be community minded.

Implementation Plan

- ▶ To offer short-term/ long-term/ ad-hoc grants throughout the year
- ▶ To conduct needs analysis and identify target communities
- ▶ To extend CE activities/projects/programs to national and international level
- ▶ To engage with international partners in conducting CE activities/projects/programmes

Output

- ▶ Increase in the number of project leaders amongst staff and students.
- ▶ Increase in the number of participation from staff and students.
- ▶ Increase in the number of collaborators/partners.
- ▶ Increase in the number of projects that can be replicated .
- ▶ Staff and students learn to develop a sense of commitment to address community vocational market needs of their region, their nation and the globalised world.
- ▶ The establishment of a meaningful working relationship that would yield beneficial outcomes through the exchange of ideas and sharing of best community engagement practices.
- ▶ USM gets to expand collaboration with external entities. This will allow the possibilities of securing external fund under CSR to fund USMPrihatin initiatives.

Milestones

Phase 1: 2014 – 2017

= 400 projects
(100 projects/year)

Phase 2: 2018 – 2021

= 480 projects
(120 projects/year)

Phase 3: 2022 – 2025

= 600 projects
(150 projects/year)

Flagship Projects

Implementation Plan

- ▶ Ensure that initiatives devised are inclusive and not exclusive in nature, and take into account the needs of the community without detaching any groups or individuals that prevent them from full participation in the normal, normatively prescribed activities of the community.
- ▶ Ensure that significant programs carried out under the banner of USM takes into considerations detail community inputs regarding their social, economic and environmental impact on the community as well as reached out to the many facets of the social strata, especially the bottom bilions.
- ▶ Ensure that a range of best community engagement practices options are considered in the empowerment and development program taking into account the cultural sensitivities and local values.
- ▶ Ensure that community is adequately informed of plans and the rationale for of the proposed project.
- ▶ Foster sustainable collaboration and cooperation between USM and the community and other strategic stakeholders, including other spheres of government entities.

Output

- ▶ More community members benefit from the replication of meaningful projects in other community.
- ▶ Provide a platform for USM as a force to reckon within community engagement and a valuable intellectual resource that contributes to addressing national issues by empowering and transforming communities for a better tomorrow.
- ▶ The establishment of Referral Centre
- ▶ MoUs/MoAs.

Milestones

Phase 1: 2014 – 2017

= 40 projects
(10 projects/year)

Phase 2: 2018 – 2021

= 48 projects
(12 projects/year)
(Increase by 10%)

Phase 3: 2022 – 2025

= 60 projects
(15 projects/year)
(Increase by 10%)



Promotional and Capacity Building Initiatives

Objective & Strategy

- ▶ To educate and instill the concept and practice of community engagement.
- ▶ To move towards becoming Human Towers to engage the community and industry in mutual learning and co-creation of knowledge that benefit humanity.
- ▶ To promote innovations in CE

Implementation Plan

- ▶ Gathering, profiling and managing related deep knowledge of worldly concerns indigenous framework to suit the Malaysian Community.
- ▶ Establish good CE governance at the University level with collaborative understanding from all PTJs and Centre of Excellence.
- ▶ Construct a workable empowerment plan with sustainability as its main pillar.
- ▶ Conduct roadshows on university-community engagement.
- ▶ Develop training materials for the promotion of university-community engagement.
- ▶ Conduct training sessions/workshops.

Output

- ▶ 80% of USM staff and students are trained in CE.
- ▶ Engaged teaching strategies to enhance students' retention, career selection, academic performance, and the development of social and civic responsibility. Their commitment to lifelong learning and the betterment of their communities will increase graduate employability.
- ▶ The active participation of staff and students in community engagement will make them better citizens in understanding society and societal issues.
- ▶ Increase in knowledge based knowledge transfer CE initiatives

Milestones & Dates

Phase 1: 2014 – 2017
= 2 workshops per year

Phase 2: 2018 – 2021
= 2 workshops per year

Phase 3: 2022 – 2025
= 2 workshops per year

University Community Engagement Conference (USM as driver)

Objective & Strategy

- ▶ To raise awareness and understanding of the concept and practice of community engagement.
- ▶ To disseminate and share experiences of good practices in community engagement.
- ▶ To recognize, legitimize and promote scholarship of university-community engagement.
- ▶ To collaborate with local and international communities for mutual benefit.

Implementation Plan

- ▶ Organize UCEC conference every 2 years with partner universities
- ▶ Encourage publications.

Output

- ▶ USM recognizes community as knowledge-rich partners that facilitate knowledge transfers and exchanges of expertise, knowledge and skills that benefit all parties.
- ▶ Engaged research, teaching and learning produce knowledge outputs, outcomes and products that are valuable assets for USM's academia.

Asia Pacific University-Community Engagement Network (APUCEN)

Objective & Strategy

- ▶ To promote and instill university-community engagement concepts and values to staff and students of institutions of higher education
- ▶ To create capacity building for university-community partnerships
- ▶ To disseminate and share information, knowledge, resources and good practices in community engagement
- ▶ To implement joint flagship projects
- ▶ To collaboratively develop resources to support regional flagship projects

Implementation Plan

- ▶ Reaching out to the institutions of higher learning in Asia Pacific region to lead in a proactive, inclusive, holistic and participatory university-community engagement.
- ▶ Strengthening partnership and collaboration between APUCEN members
- ▶ Sourcing external grants to carry out APUCEN University Community Engagement Projects/ Flagship Projects nationally and internationally.
- ▶ APUCEN draws on the expertise and resources from an extensive number of her members to foster the culture of university-community engagement.

Output

- ▶ Institutions of higher learning and the community unite to co-create knowledge to enhance the social, economic, health, education, culture/heritage and environment of the community in the Asia-Pacific region.
- ▶ Establishment of APUCEN Trust Fund.
- ▶ Recognised nationally and internationally as the university-community engagement network in the Asia Pacific region.

Milestones & Dates

Phase 1: 2014-2017:

Actively involved in university-community engagement activities/projects at Asia regional level

Phase 2: 2018-2021:

Actively involved in university-community engagement activities/project at Asia Pacific Regional level

Phase 3: 2022-2025:

Actively involved in university-community engagement activities/projects at global level

Centre for Community Engagement Network (CCEN)

Objective & Strategy

- ▶ The CCEN is initiated as the ultimate goal in mobilizing and orchestrating the strengths of USM academia, administrative staff and the student corp body to collaborate as a synchronized whole, working to transmute lives, remold and transform societies for a better future.
- ▶ The CCEN introduces rigor and discipline across various community engagement initiatives and provides benefits by building skills and competencies to sustain successful execution of challenging CE initiatives.

Implementation Plan

- ▶ Promote and foster reciprocal partnerships between community and university.
- ▶ Foster an institutional community engagement culture that integrates outreach and engagement throughout the university with identified outcomes.
- ▶ Appoint Visiting Professor/Scholar/Practitioner/Consultant of university-community engagement

Output

The centre will develop and support community-university initiatives and research collaborations by:

- ▶ Collaborating and engaging in partnerships with communities, NGOs and government agencies for external funding to address identified need in the community.
- ▶ Improving the learning experience and employability of students by matching both research dissertations and projects to community need.
- ▶ Promoting and supporting wider community research and engagement activities across the nation and region.
- ▶ Providing knowledge and skills exchange between USM and community partners and networking opportunities with other stakeholders.
- ▶ Organizing seminars, conferences, talks and workshops.
- ▶ Producing co-authored publications, reports and other outputs.
- ▶ An interdisciplinary approach to doing CE work.
- ▶ The creation on effective supervision and monitoring system relating to CE initiatives .
- ▶ The objective assessment of different treatment modalities to determine their benefits.

- ▶ Greater university social responsibility is projected through volunteerism which is in line with the APEX vision of empowering the disadvantaged and marginalized within the framework of a sustainable tomorrow.
- ▶ Efficient use of resources.

Milestones

Phase 1: 2014 – 2017:

CEC will be recognized as a leading community engagement center in Malaysia.

Phase 2: 2018 – 2021:

CEC will be recognized in Asia Pacific region and act as a referral center.

Phase 3: 2022 – 2025:

CEC will be recognized as a global center and act as a referral center.





MAY 2012
AMBASSADORS
SUMMIT
BRIDGING BUREAUCRATS



SOUTH EAST ASIA SUSTAINABILITY NETWORK (SEASN)

Background

The South East Asia Sustainability Network (SEASN) is an alliance of higher education institutions and other related sustainability organisations, agencies, NGOs, and industries in South East Asian countries committed to promote, engage and integrate sustainability in their teaching, research, community engagement and institutional engagement.

Objectives

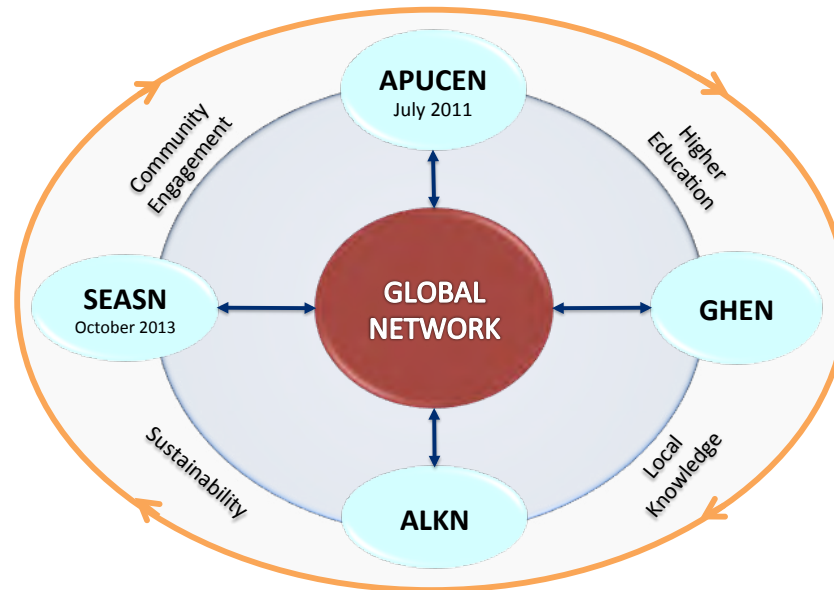
SEASN:

- Promote sustainability in higher education institutions and other related sustainability organisations, agencies, NGOs, and industries in South East Asian countries;
- Exchange ideas, research findings and best practices in sustainability; and
- Promote joint collaborations on projects in sustainability.



Role of SEASN Secretariat

- Facilitate the governance, membership, networking and publicity of SEASN;
- Coordinate and facilitate sustainability-based research, activities and publication under SEASN;
- Organise and coordinate SEASN meetings and assembly;
- Disseminates and shares information, knowledge, resources and good practices in sustainability;
- Manage and develop SEASN website and database; and
- Be the central point of contact between the members of SEASN and the public.



A Vision for the Future; A Heart for the People

APEX Extension and Positioning

Visible, Distinctive and Competitive

Education for Underprivileged

Bringing social, economic, educational transformation by providing to the students in the rural and semi urban communities in Malaysia to get access to education in USM. The purpose of the project is to bring social, economic educational transformation opportunities to the students in the rural and semi urban communities in Malaysia to get access to education at USM.

Being aware that children are the nation's greatest future human capital, the project intends to ensure and support the child's complete development that is cognitively, physically, socially, for underprivileged students in the rural and semi urban communities to get access to good education and improve the quality of their life in order to build a stronger, vibrant, empathic and knowledgeable communities. Projects like this will help underprivileged children and young people of the country to realize their full potential and is vital in securing a prosperous future for the community.



Positioning Towards Global Prominence

- Despite the understanding that the achievement of USM as an APEX university is not to be measured on any ranking system, USM realizes the high expectation of the stakeholders that USM, as an APEX university must do well in all rating and ranking exercises.
- USM in the Phase II will ensure that the university will be in a position that reflects its stature as an APEX university.
- Without neglecting the core business of a university, quality mechanism will be further enhanced, covering various facets – such as research, teaching, internationalization, partnerships, employability, facilities, innovation, etc.
- USM quality will also be reflected by national rating systems such as MyRA, SETARA, DSETARA (5-6 STAR).



POSITIONING USM TOWARDS GLOBAL PROMINENCE

USM Into The World Ranking

While it has been agreed that the measure of USM achievement in phase 1 was not to be measured based on any ranking, the second phase will see USM making an appearance in two more reliable world ranking systems, namely the World University Rankings, THE & Shanghai Jiao Tong. Realizing the expectation of the stakeholders to see APEX university to be ranked, enhancements in various facets of rankings such as -research, teaching, internationalisation or partnerships, employability, facilities, innovation, etc will be strengthened.

Championing Domestic Ratings

USM will champion domestic rating systems such as MYRA, SETARA, DSETARA (5-6 STAR), etc. Ensuring the development of USM, as a university to be holistic, USM must excel and be seen at the top of these rating systems.



APEX Extension and Positioning

Visible, Distinctive and Competitive

APEX Phase II

STRATEGIC GLOBAL EVENTS



Bringing USM to the world. More strategic events will be conducted outside USM and outside the country. Together with strategic partners, USM will embark in co-hosting impactful events that would put USM onto the world map. Annual International Summit and Leaders Talk Series that gather leaders from universities across ASEAN and the world over, will be invited to share knowledge on the future of education and innovation.

P4

Strategic Marketing- Diversification

USM to be the a global brand with marketing strategy that attracts quality students and researchers, more diversified. Understanding the USM market, the university will continue to evaluate its strengths and its competitors. While maintaining the traditional markets, the top 15 countries with the most students studying in USM, we will explore the potential new strategic markets (Blue Ocean countries) for promotions, networking and brand positioning.

Milestones

Phase	Target
2014 - 2017	USM will be known at 10 blue ocean countries with a strong global brand and polished reputation.
2018 - 2021	USM will be known at 20 blue ocean countries with a strong global brand and polished reputation.
2022 - 2025	USM will be known at 30 blue ocean countries with a strong global brand and polished reputation.

USM networking, research collaborations, student intakes are expected to gain 50% from the traditional markets and blue ocean countries. The expected outcome of this strategic marketing would be USM be known globally as the university with strong branding and reputation, networking and provide one of the best service in the world.

USM as Regional Conduit

- Championing the cause of the bottom billion population is synonymous with USM. Partnership with world class research institutes and top scientists will be strengthened, and USM will play the mediating role that bridges the developed and the developing countries.
- Existing networks with research institutes such as RIKEN & United Nations Research Institute for Social Development (UNRISD) will be expanded. USM will play a major role in OIC, Asia as well as ASEAN countries.
- USM, through APUCEN network, will expand its collaborations with other universities in the region.
- To realize this mission, USM will engage **global representatives** from USM community and alumni.

P4



APEX Extension and Positioning

Visible, Distinctive and Competitive

Collaboration between USM and the Sir Walter Murdoch School of Public Policy and International Affairs



To establish linkages with an international university in Australia in the field of public administration/ management in order to meet the human resources management development needs of the public sector in Malaysia and other parts of South East Asia/Asia-Pacific

Professional Masters coursework/ doctorate degrees



Graduate certificates, short courses and training programmes



way for the fail is experience



APEX Extension and Positioning

Visible, Distinctive and Competitive

APEX Phase II

AGROtecture

concept:

- sustainable agriculture
- high yield, high value plants
- micro farming
- low investment, high profit

premise:

- capitalizing on demand for urban agriculture
- ensuring urban food security

collaboration:

- USM-UMK
- related government agencies and authorities

Fields:
Agriculture, Architecture, Arts,
Biology, Botany, Business,
Industrial Technology,
Landscape &
Social Sciences



Phase 3:
Community
Involvement and
Education

Phase 3:
Business

Phase 2:
Prototype & Field
Testing

Phase 1:
Infrastructure &
Tech Development

Phase 1:
Packaging
Development

Phase 1:
Development of
Quality Crops

urban AGROtecture

P3



APEX Extension and Positioning

Visible, Distinctive and Competitive

Green Technology Institute

The proposal to establish the Green Technology Institute in Malacca through a smart partnership with Universiti Sains Malaysia intends to ensure that both the green technology education and training are aligned. In addition, it also aims to lessen the negative impact from rapid human activities in Malacca specifically from the resources management of energy, water, solid waste, transportation, and ICT.

The first Green Technology education and training referral centre in Malacca.

Development of Green Technology education **modules** for all educational institutions from the universities to the schools across the private and the public sectors of Malacca.

One stop centre for all information on Green Technology

Creating awareness for the Green Technology through promotional activities throughout Malacca.



PILLAR

5

APEX Academic and Student Development

- ▶ Prominence in Sustainability and Global Mindset



APEX Academic and Student Development

Prominence in Sustainability & Global Mindset

APEX Phase II

Pillar 5



Student with Global Mindset



APEX Global Programme



Student Mobility



Institute of Open Learning

Academic Impact Programme

P5

ACADEMIC IMPACT PROGRAMME

Introduction

This project involves three main activities, namely, enhancing and strengthening the sustainability-led programmes, enhancing distinctive student experience, and enhancing global presence and visibility. In enhancing and strengthening the programmes, this project will identify flagship programmes and incorporate sustainability elements into them. Effort to embark on joint programmes with international universities and acquire international accreditation will be undertaken. In enhancing student experience, this project will look to revise the curriculum to incorporate the dimension of global citizenship. Appropriate learning spaces with 21st century classroom facilities will be developed, and more awareness programmes will also be implemented. In enhancing global presence, this project will devise strategies to increase the number of international chairs. Courses in Open Educational Resources (OER) will be promoted and efforts will also be undertaken to devise the strategies to increase the number of programmes that achieve top ten ranking at global level.

Project Name

Prominence in Sustainability Programmes to Nurture Responsible Global Citizens (RGC)

Objectives

- A. Strengthening and enhancing academic competitive edge of academic
- B. Enhancing Distinctive Student Experience
- C. Enhancing Global Presence and Visibility

Strategy

Strengthening & Enhancing Academic Competitive Edge of Academic

- i. Identify flagship programmes
- ii. Incorporate sustainability elements into the curriculum of the flagship programmes
- iii. Embark on joint programme with international universities renowned for their sustainability programmes
- iv. Acquire international accreditation for flagship programmes from each cluster
- v. Use English as medium of delivery for the flagship programmes

Enhancing Distinctive Student Experience

- i. Incorporate dimensions of global citizenship in teaching and learning practices
- ii. Create learning spaces suitable for 21st century classrooms
- iii. Promote the applications of ICT in teaching and learning practices appropriate for 21st century skills
- iv. Students to acquire a third language proficiency
- v. Enhance student mobility programmes for international exposure

Enhancing Global Presence & Visibility

- i. Increase the number of International Chairs in Sustainable Programmes
- ii. Increase the number of international students for flagship sustainability-based programmes
- iii. Increase and promote the number of courses related to sustainability as an Open Educational Resources (OER)
- iv. Increase the number of international Awards/Fellowships/Visiting Professors
- v. Increase the number of programmes that achieve top 10 ranking at regional/global level.

Implementation Plan

A. Strengthening & Enhancing Academic Competitive Edge of Academic

- i. PTJ to identify one flagship programme
- ii. PTJ, together with CGSS to revise the curriculum to incorporate sustainability elements
- iii. PTJ to identify renowned international universities for collaboration via MOU and MOA
- iv. PTJ to work together with Pusat Kualiti for international accreditation
- v. PTJ to revise the identified programme for English medium of delivery for Senate approval

B. Enhancing Distinctive Student Experience

- i. PTJ to revise the curriculum to incorporate dimensions of global citizenship
- ii. CDAE to work together with PTPM, PPKT and Jabatan Pembangunan to plan and develop learning space/environment (21st century classroom facilities)
- iii. CDAE and PTKT to conduct more training and awareness programmes
- iv. PPBLT to incorporate third language competencies for soft skills requirements
- v. International Office to develop new model for enhancing USM's students participation in international exchange programmes.

C. Enhancing Global Presence & Visibility

- i. HEA to devise strategies to increase the number of international chairs in sustainable programmes
- ii. HEA and SCOMM to devise strategies to increase the number of international student intake in the flagship sustainability-based programmes
- iii. CDAE to promote the courses related to sustainability as an Open Educational Resources (OER) and MOOC and to become an affiliated OER/MOOC consortium
- iv. HEA to increase the number of International Awards/Fellowships/Visiting Professors
- v. PTJ to devise strategies to increase the number of programmes to achieve top 10 ranking at regional/global level

Output

- A. USM will have flagship on sustainability programmes with international collaboration and accredited internationally
- B. USM graduates will have global citizenship attributes and be adaptable to the 21st century work force
- C. USM will be highly visible internationally



Students with Global Mindset

- Graduates who see the world from a cosmopolitan viewpoints and have an awareness of different cultures and values.
- Producing graduates that meet the expectations of global employers.
- Universities need to provide the right environment and opportunities.



Pimpin Siswa II

Excellent Sportsmans

Career & Holistic Individual Development

Curriculum Revision for All Programme

Leadership – Global University Student Parliament



P5

STUDENTS WITH GLOBAL MINDSET

Introduction

In today's globalized economy and as the world is getting more borderless, the job market has become increasingly global. Globalized businesses require talent to compete at the global level. In fact, government agencies too are becoming global in nature. A global graduate is not simply a highly educated young adult who can speak foreign languages. Employers want talented graduates who can work with people from different backgrounds and embrace different perspectives. Competition for job placement is becoming increasingly stiff whereby employers now seek graduates who are well equipped for the global market.

It is crucial for higher learning institutions to focus on producing graduates that meet the expectations of global employers, be it Multinational Corporations (MNCs) or Small Medium Enterprise(SMEs), who operate across borders. Universities need to provide the right environment and opportunities for students to flourish and enable them to develop not only sound employability skills as we are currently focusing on, but a global mindset as well.

List Of The Projects

- ▶ Pimpin Siswa Lanjutan
- ▶ Curriculum Revision For All Programmes
- ▶ Excellent Sportsmen
- ▶ Career Development
- ▶ Culture Development
- ▶ Leadership – Global University Student Parliament

Objective And Strategy:

To Produce Students with Global Mindset

Implementation Plan:

The implementation will be based on each programme provided and organized to suit the Global Student Mindset or Global Mindset characteristic.

Output

To make our graduates more relevant for the future job market by producing more graduates to fulfill the needs of various potential employers be they local or international.

Future graduates will not be limited to having good knowledge in particular areas of studies within a particular nation or society. Graduates will be exposed to a wider range of global issues, problems and challenges. Hence it is important for universities to produce graduates with global mindset.

Milestones And Dates:

Phase	Target
2014 - 2017	<ul style="list-style-type: none"> i. 25% USM graduates possess between 50% - 70% of key competencies of global graduates. ii. Student development initiatives, programmes and activities, should focus and give emphasis on: <ul style="list-style-type: none"> • Enhanced employability skills and competencies including soft-skills, communication skills. • Building confidence through student empowerment programmes and activities and involvement in university Governance. • Revisit student activities with proper guidelines and procedures. • Improve student internship and exchange programs, focusing on international internship. • Develop networking with outsiders (industry, NGO's, private and public sector).
2018 - 2021	<ul style="list-style-type: none"> i. Increase numbers of students involved in activities and programmes at national and international level to enhance the student's knowledge (e.g seminar/paper presenting/competitions). ii. Increase student's participation in innovation programmes or competitions and train them to be more competitive at international level. iii. Enculturation of public speaking, debate, forum and paper presentation among all students. iv. Collaborative effort to facilitate opportunities for industry to introduce the idea of global bussiness activity as early as possible. v. Developing degree programmes to include more of these global employability skills to ensure we are producing the best talent for multinational employers to recruit from, both for their operations in malaysia and in other countries. vi. More exposure to real world projects within the University.

Phase	Target
2022 - 2025	<p>50% target of USM graduates posses between 75% - 100% of key competencies of global graduates. Student development initiative programmes and activities, should focus and give emphasis on;</p> <ul style="list-style-type: none">i. Cultural agility - Negotiation across cultures, communication skills across cultures.ii. Collaboration and creating networking at the international level.iii. Provide more oppourtunities for students to both study overseas and experience the global workplace through internship and work placement.



Global Student Mobility

- The main objective of the USM Mobility Programme is to increase the number of outgoing students in for exchange programs the second phase of the APEX Program.
- Programmes for students include:
 - semester exchange programs with partner universities,
 - short-term exchanges with research/lab attachments and study visits.

Exchange Program

To increase the number of students' mobility (incoming and outgoing)

Exchange programmes

Short-term exchange



P5

APEX Global Programmes

More selected global programmes will be offered with partners from across the globe. Among potential programs are Global Archeology, Chemical Engineering, Molecular Biology, Women Entrepreneurship and Sustainability, Islamic Studies, Material Sciences and Chemical Sciences



APEX Academic and Student Development

Prominence in Sustainability & Global Mindset

Institute Of Open Learning



The **FUTURE** of learning is **OPEN**.....“Open” means...open source (code), **free resources**, research that is publicly available on the Web, free courses (free enrollment), open license...open vs proprietary.

The Universal Declaration of Human Rights (Article 26.1), which states that: “**Everyone has the right to education**”

THE GOAL

Widening public access to learning opportunities & reaching out global learners via **open educational resources (OER)** and **massive/mini open online courses (MOOCs)**.

Niche Courses (with sustainability, Malaysian or Asian flavor)

Malaysian Studies, Asian Studies, Asian Economy, Asian Business, Islam in Asia, Asia History, etc.

Open Educational Resources (OER) is an internet-based learning material that can be openly accessed. Massive Open Online Course (MOOC) was born in 2008 from the movement of OER. M stands for **massive/mini**; O stands for **Open**; O stands for online and C stands for **Course**.

OPEN EDUCATIONAL RESOURCES

Introduction

Open Educational Resources (OER) is an internet-based learning material that can be openly accessed. Leading universities (MIT, Harvard, etc) in the world are racing to provide accessible OER to the global community. Massive Open Online Course (MOOC) was born in 2008 from the movement of OER.

Definitions of each MOOC terminology are as follows:

M-Massive. This terminology means large-scale with as many as 10,000-100,000 students.

O-Open. Open means available freely in terms of registration, content and also in terms of open access.

O-Online. Online means the use of the Internet as a medium of interaction (forums, web collaboration, meeting) and this activity is done in real time format.

C-Course. Course means a programme that takes credit for certification and has a start date and an end date. The existence of a course manager should also aim to guide and enhance the learning process. The course also carry the meaning of the existence of community learning and students self-learning which can occur.

MOOC wave is the hottest wave in education now, and is due to the existence of several suppliers with strong finances such as Coursera, edX and Udacity who are working together with famous University's in the world to offer courses to students with the number reaching tens to hundreds of thousands of people.

This project proposes the USM rides the MOOC waves through the development of OER programmes with more niche area of its own. MOOC USM will support the national agenda in the field of lifelong learning, the knowledge society and the democratization of education (bottom billion), at the same time, boost the name of USM to the global level.

Objectives and strategies

- i. To develop and implement a programme of OER USM that can be accessed by all walks of life at a national level and globally support the lifelong learning agenda in implementing the knowledge society.
- ii. To enable access to OER by the global community, this project will allow USM to join the Coursera Consortium for the implementation of MOOC internationally. This will catapult USM's visibility at a global level as well as gain the support of democratization of education to all including the bottom billion.

Implementation Plan

- i. Identifying USM's niche area which can be highlighted at a global level
- ii. Developing USM's OER niche area extensively
- iii. Join the MOOC Consortium which will allow OER USM to be accessible to the local and global community

Output

- i. Boost USM's name globally and increase the ranking of USM in various international benchmarks
- ii. Assist in ensuring the success of the PSPTN agenda from the lifelong learning aspect
- iii. Help meet the APEX transformation plan
- iv. Increase the competitiveness of the academic programme of USM globally
- v. Produce a knowledge society
- vi. Implement democratization education

Milestones and Date

- 2013 : Identify the niche area of USM which can be further developed as OER and promoted globally
- 2014 : OER development on an ongoing basis and extensively
- 2015 : USM affiliates with the Coursera Consortium for the implementation of MOOC
- 2016 – 2025 : The development of OER for MOOC continuously

Conclusion

This project is very important for the realization of the national agenda which refers to the formation of the knowledge society and the democratization of education. OER USM and MOOC paves the way for USM to be famous not only at the national level, but also at the global level in the cultivation and dissemination of knowledge which can be accessed and utilized by all walks of life.

CENTRE OF SUSTAINABLE TOURISM RESEARCH (CSTR)

- **Responsible University Official** – The Centre reports to an official within the University hierarchy who has authority over policies and procedures, decisions about research programmes and allocation of resources
- **Center Administration** – Director, Administrative Assistant, etc
- **Research** – Program areas, Principal Investigators, Researchers
- Goal :
 - To provide timely, innovative and cost effective research solutions and outcomes that meet client needs, advance academic knowledge and educational development opportunities for postgraduate students

The Role of CSTR



RESEARCH AREAS

- Sustainable Tourism Planning & Development
- Coastal and Marine Tourism
- Community Development
- Cultural Heritage Tourism
- Event Tourism
- Health & Wellness Tourism
- Hospitality Research
- Indigenous Tourism
- Tourism Marketing

P5

Institute of Local Knowledge

Local Knowledge (Kearifan Tempatan) refers to knowledge and expertise which originates from local and indigenous culture that has developed over time and which practices are absorbed naturally and effortlessly into the local community. It is an accumulation of collective knowledge from lived experience over long periods of time. Such wisdom traces its origin from local Malaysian culture specifically, and cultures of the Malay archipelago in general. The research on Local Wisdom started in 2011 before it gained momentum in 2012 after the conferment of a Long Term Grant (LRGS) from the then Ministry of Higher Education. In its road-map, this research group will develop into a full research centre by 2015 and into a research and academic institute by 2018.

The study of Local Knowledge is premised upon four primary objectives:

- i. to retrace local knowledge and indigenous science,
- ii. to globalize the study of contemporary local knowledge,
- iii. to translate tradition local wisdom into new knowledge
- iv. to ensure the preservation of local wisdom and indigenous science.

Research areas:

- The World of History
- The World of Literature
- The World of Education
- The World of The Rural Community
- The World of Traditional Medicine
- The Spiritual World
- The World of The Arts



- The World of Construction
- The World of Shipping and Trading
- The World of Management
- The Traditional Malay Ethics & Practice
- The World of Water
- The World of Forestry and Agriculture
- The World of Oceans and Rivers
- The World of Business and Trade



PAGE 2 | NEW SUNDAY TIMES
R&D MALAYSIA

SEPTEMBER 30, 2012

Retracing local knowledge

UNIVERSITI Sains Malaysia is spearheading a research effort designed to preserve local traditional knowledge that is on the verge of disappearing from our times. Launched by the Higher Education Minister, Tan Sri Mohamad Khalid Nordin in August this year, the Knowledge Research Group is led by Professor Bunko Omar Othman, Vice-Chancellor of USM. The project was modelled last year and was given a boost with a university-allocated grant of RM200,000 to begin conducting the research and collecting relevant data.

Malaysia is rich in traditional heritages, with every ethnic group able to boast of several generations' worth of accumulated knowledge, some of which has evolved to better serve the changing times.

Work that is meant to assist the group to retrace local knowledge according to Professor Othman's criteria adopted by the United Nations Environment Programme's (UNEP) Definition of Indigenous (local) knowledge: "The knowledge that an indigenous local community accumulates over generations of living in a particular environment. This definition encompasses all forms of knowledge — technologies, know-how, skills, practices and beliefs — that enable the community to achieve stable livelihoods in their environment."

Essentially, local knowledge refers to the cumulative body of knowledge developed through extended periods of time, based on local culture and anchored in the social practices of the community.

The knowledge can consist of local wisdom, lore and indigenous science. Often this knowledge is rooted in practicality and highly interdependent counterparts to the farmers, fishermen and tappers of the indigenous people would need to take heed. As an example, the practice of mooring, known as the *Maui* people of Sabah requires that when collecting logs from the forest, only take from plants that are mature to ensure a sustainable supply and only take what is needed.

The cumulative traditional knowledge in existence reflects many generations of experience and problem solving by indigenous people, not just in Malaysia but around the world, and they are being increasingly affected by globalising forces. It is difficult to imagine, as is all in our smartphones and air conditioned offices, that the forest folk knowledge would have a different life, but the facts stand without a doubt, it will lose an important chunk of our identity that defines us in the eyes of the world.

Modernisation, westernisation and the recent wave of globalisation have forced much precious indigenous knowledge to extinction, points out Professor Othman. "We realise that much traditional knowledge that is not based on biotechnology and much of this because Western knowledge tends to be more physical and less spiritual."



Participants in seminars and workshops under the Local Knowledge Programme.

PRESERVATION AND ACCESSIBILITY The core team members for the research programme are from USM, led by Professor Othman himself, and co-lead by Professor Ismail Yusoff, Malaysian Director of the Strategic Communications Office at USM, who is an expert in tourism development. Professor Badaruddin explains that the overall local knowledge programme consists of two major parts. "One part consists of individual projects supported by the USM funding mechanism, namely the Research University grant scheme and the APEX special fund," he explains.

A bigger part of the programme, however, consists of the recently awarded bottom-up Long Term Research Grant Scheme (L3SG) by the Ministry of Higher Education (MHE). The L3SG was formulated to encourage long-term research programmes and innovations that involved multidisciplinary knowledge.

The programme intends to access indigenous knowledge from the local level like many other disciplines that do not require the researchers to have their own theories, this project requires close interaction with the local people. The results are made by identifying a number of field papers among the local community who are then approached and interviewed.

The Knowledge Research Group has identified 13 categories of local knowledge for documentation, and decided to start with gathered experts in the 13 selected fields. The various disciplines of indigenous knowledge

include the spiritual, travel and hospitality; shipping and trading; history; management, literature, education; arts; traditional medicines; engineering and several others.

The inaugural conference in Langkawi last year attracted more than 100 papers. Professor Badaruddin reveals: "We believe that reflects the demand for platform of knowledge sharing on local wisdoms."

Our objective in this project is to research and study Malay indigenous knowledge in comparison with local Chinese, Indian and other ethnic knowledge towards the creation of a community-based knowledge transfer device.

USM has planned for the repository to have two forms. First will be the physical showcase of tangible knowledge, like traditional arts and crafts, others being will also be a digital repository that will house the knowledge in digital format. USM plans will not stop there.

They will soon be launching the Asian Networks on Indigenous Knowledge, a network linking institutions of higher learning, NGOs and governmental agencies from across Asia that share the same vision and interest in local knowledge.

"We take our own knowledge for granted, and much of this traditional knowledge has gone," Professor Badaruddin says. "As a university that promotes sustainability, we want to champion the preservation of indigenous knowledge as an effort to preserve it for future generations."

USM will be hosting a regional conference on local knowledge on 12 to 14 of next month at Langkawi and others. The university will receive prospective programmes, interested to embark in full-time research in local knowledge. For details on the local knowledge programme at USM, please email: kber@tempus.usm.gov.my





6

APEX Financial Sustainability

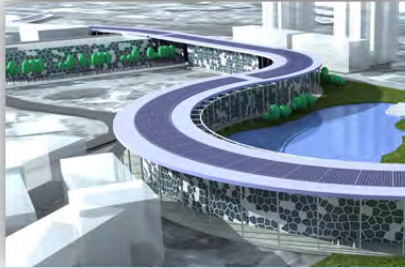
▶ Financially Sustainable

APEX Financial Sustainability

Financially Sustainable

APEX Phase II

Pillar 6



Sg.2 Revitalisation



SAINS@USM



USAINS
as Income Enabler



Beyond Service



Private University



USM Foundation

P6

Introduction

USM operational cost is expected to increase due to the increasing operational cost and increasing number of student intake. Together with the expected reduction of 30 % Government funding to all IPTAs by 2015 (The National Higher Education Strategic Plan (2007-2020)), It will further create bigger funding gap between income and expenditure of IPTAs.

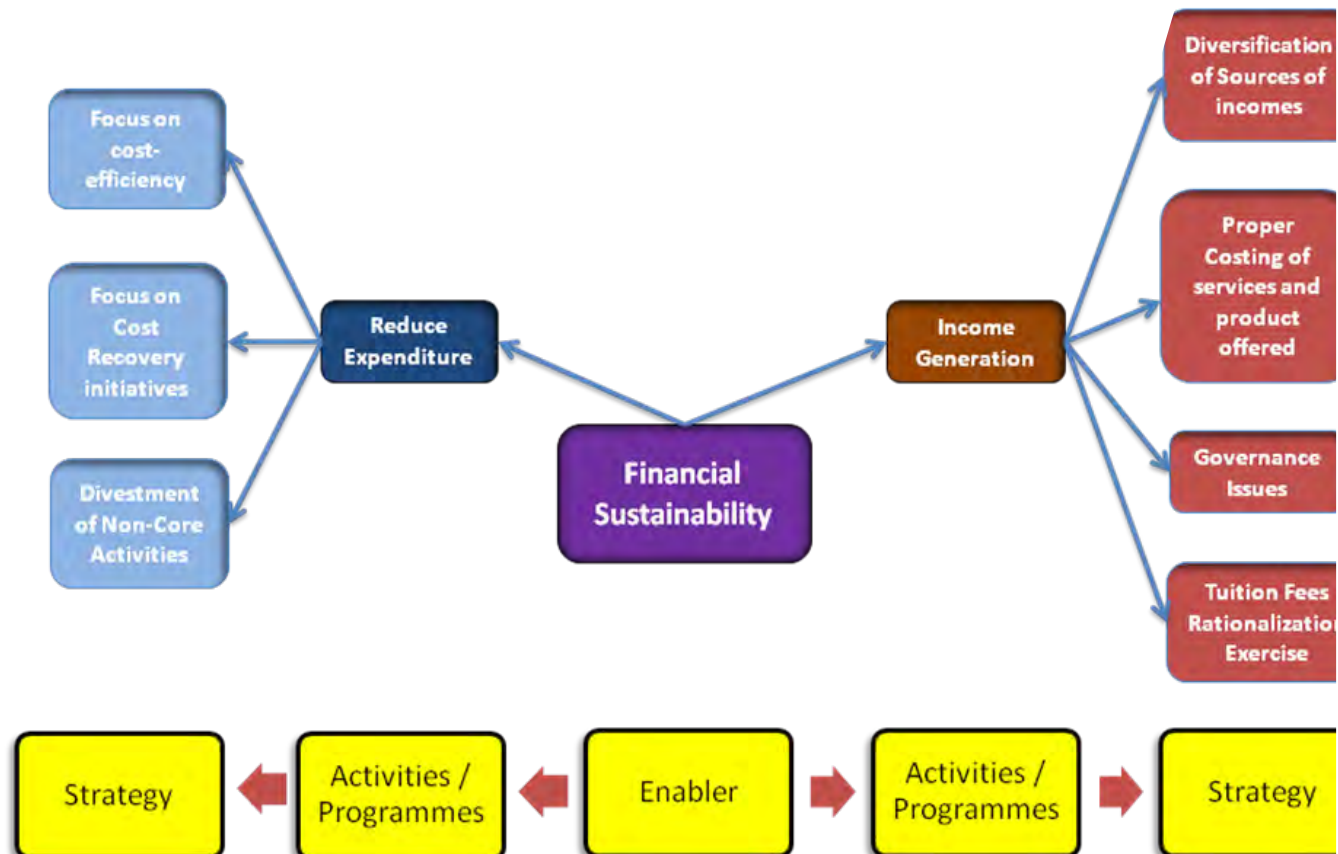
In view of that, it is crucial that USM takes a more strategic step to be financially self-sustainable and start looking for additional financial resources to fund the increasing operational cost. This is because financial sustainability is vital for the survival of any business ventures including USM.

The Philosophy

The philosophy of Financial Sustainability is to create income and reduce cost without reducing the ability to conduct core functions. Figure 5.1 shows how financial sustainability could be achieved.



Strategic Steps Towards Achieving A Financial Sustainable University



The above figure shows the factors that could influence USM's financial sustainability. There are four factors that could increase income generation. They are diversification of sources of income, proper costing of services and products offered, governance and tuition fees rationalization exercise. On the other hand expenditures can be reduced by focussing on cost efficiency, focusing on cost recovery and divestment on Non-Core activities.



Sg2 Revitalization

Total built Up: 892,218 SQF

Parking Bays: 1920

Estimated GDV: 300 MIL

Annual Return: 30 MIL

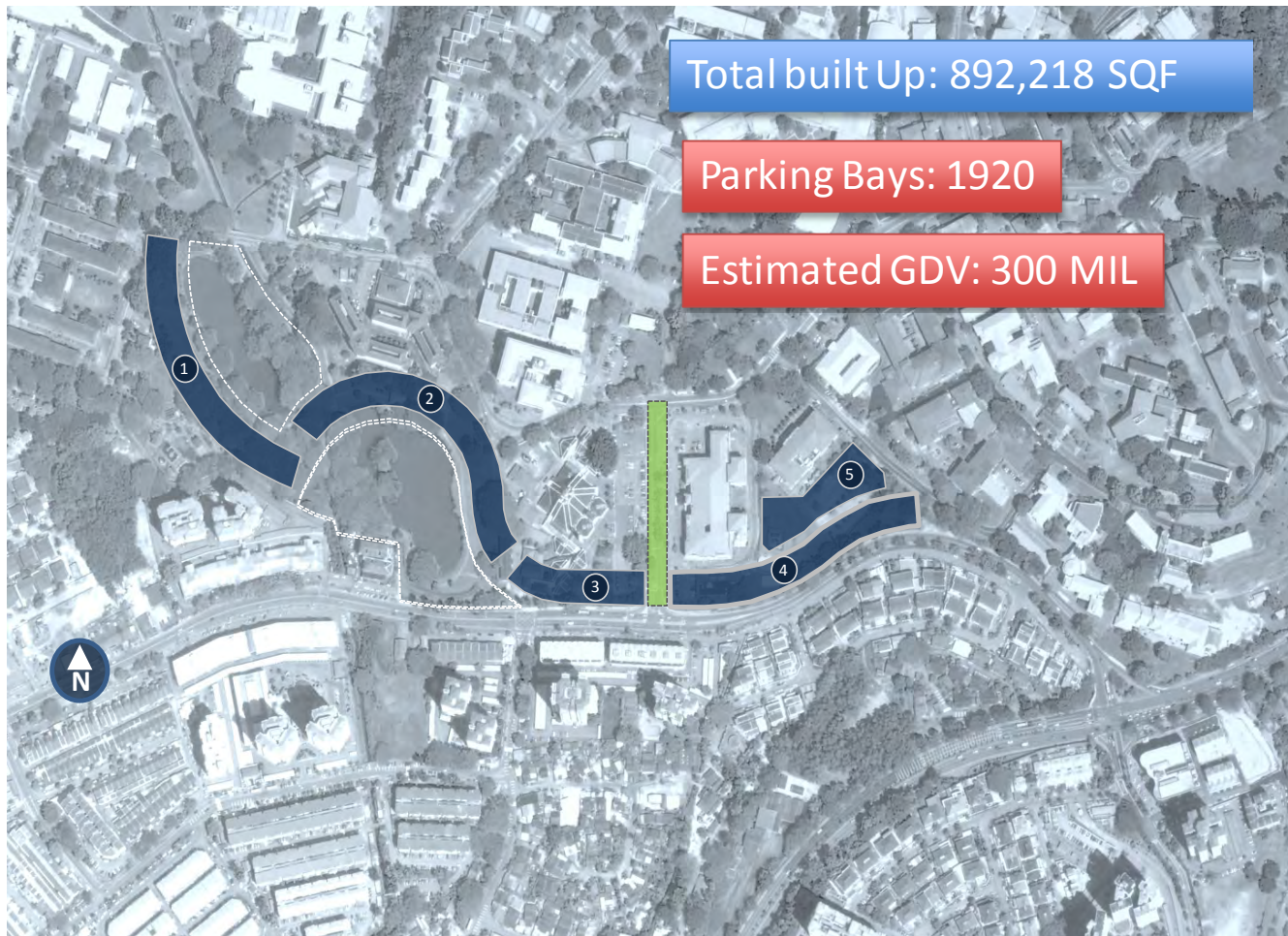
A redevelopment of USM's Sungai Dua entrance, comprising parcels for R&I, commercial establishments, students development centre among others, will expect to generate income to the university in the long run. Consist of 5 solar-paneled rooftop, with a total built up of almost 900,000 sqf, this project has a gross development value of more than RM 300 millions.

P6

SG2 REVITALISATION

A redevelopment of USM's Sungai Dua entrance, comprising parcels for R&I, commercial establishments, student development centre among others, will expect to generate income to the university in the long run. Consists of 5 solar-paneled rooftop, with a total built up of almost 900,000 sqf, this project has a gross development value of more than RM 300 millions.





Total built Up: 892,218 SQF

Parking Bays: 1920

Estimated GDV: 300 MIL

<p>Space Facility :</p> <ul style="list-style-type: none"> ① Research Based Zone (128 units) : 140,800 SQF ② 140,800 SQF ③ Commercial Zone 1 (128 units) : 140,800 SQF ④ Commercial Zone 2 (60 units) : 60,000 SQF Business Zone (150 units) : 150,000 SQF 	<ul style="list-style-type: none"> ■ Pedestrian Walkway: 86,900 SQF ⑤ USM Vista: 20,000 SQF Multi Storey Parking : 400 Bays On Ground Parking : 600 Bays Semi Basement Parking: 920 Bays Total Parking Bays : 1920 Bays 	<ul style="list-style-type: none"> Space Facility: 491,600 SQF Walkway & Vista: 106,900 SQF Service & Circulation : 110,000 SQF Multi Storey Parking: 61,218 SQF Semi Basement Parking: 122,500 SQF Total Built Up Area: 892,218 SQF
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APEX Financial Sustainability

Financially Sustainable

APEX Phase II

Pillar 6

SAINS@USM



P6

APEX Financial Sustainability

Financially Sustainable



SAINS@USM



Expected Annual Returns: RM 10 M

P6



Existing Facilities

Conference spaces
 CBER, School of Arts, CREST

On-going Projects

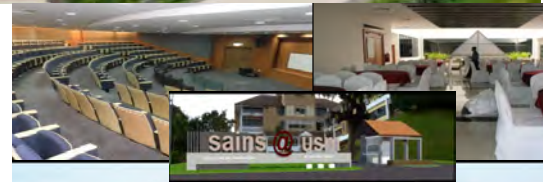
Inkubator Inovasi Universiti (I²U) - Phase 1 [RM51 million]
 Club House, Cafeteria and New Facade

Future Plans

Hotel – Upgrading and Remedial Works on Hostel - Phase 1C
 Multipurpose Hall
 USM Toyohashi International Classrooms

Requires additional funding of RM300 million

Expected annual returns: RM10 million



Strategic Plan for Financial Sustainability

A. Income Generation

1. Diversification of sources of incomes

Action Plan

a) Create Diversified Investment Portfolio

- Equity / shares / stocks / bonds (Blue Chips – Low risk shares)
- Property – (KL / PG / JB)
- Money Market
- Loan/others

Expected Outcome

Increase income and reduce risk

b) Encourage all PTJ's to Generate Income and be Self-Sufficient

Expected Outcome

Increase PTJs income and increase staff exposure in business with entrepreneurial mindset

c) Commercialization of services (3 Campuses):

- services provided by all campuses and other service centres
- rental of space (hostel / offices / labs)
- testing facilities
- expertise / consultancy services
- USM Club and Sungai Dua Revitalization Projects
- Car Parks
- USM Private Hospital
- Entrepreneurship Carnival

Expected Outcomes

- Upgraded facilities to generate additional income from the facilities/services
- Increase number of public (individual/companies) using the facilities

d) Commercialization of Research Products:-

- Create Revolving funds to assist in commercialization - ICO and Usains
- Set up start- up companies (JV student/USM, JV Industry/USM)
- increase Usains Holdings investment in commmercialization
- Increase number of incubators

Expected Outcomes

- increase number in commercialization
- Increase number of start-up companies
- Increase number of student entrepreneurship



2. Proper costing of services and products offered

Action Plan

a) Full cost recovery of intellectual services, projects, franchise and programmes

Expected Outcome

- Increase Income
- Save utilities / facilities cost

b) Seminar on Value Management – staff and industry

Expected Outcome

- Increase income
- Efficient asset management and cost savings

c) Seminar on Risk Management to reduce / minimize risk – staff and industry

Expected Outcomes

- Increase income
- Efficient asset management and cost saving
- Reduce legal exposure
- Less probability of failure

3. Tuition fees rationalization exercise

Action Plan

- a) **Determine the cost involve in graduating each student and engage in a tuition fee rationalization exercise**

Expected Outcome

Increase income for University

- b) **Increasing numbers of undergraduate and postgraduate students (International) and fast track postgraduate programmes (local students)**

Expected Outcome

- Increase university's income
- Internationalizing USM

- c) **Increasing numbers of franchise / off-shore / short courses**

Expected Outcomes

- Increase income for University

4. Governance Issues

Action Plan

- a) - Relooking at financial standing order that impede income generation initiatives
 - Incentives for income generation – reward/honorarium
 - Human Resources (talent management and allow more academic / non-academic to involve in Business)

Expected Outcome

Increasing numbers of academic entrepreneurs and increase income contributions to USM and staff



B. Reduce Expenditure

1. Focus on Cost-Efficiency

Action Plan

a) - Shared facilities, administrative set-up and human resource

Expected Outcome

- Reduce expenditure on utilities
- Increase productivity
- Enhance staff interaction

b) Encourage multitasking work between PTJs / offices

Expected Outcome

- Increase staff knowledge, flexibility and mobility
- Less time wastage

c) Minimize work duplication (academic / administration)

Expected Outcome

- Reduce time wastage, reduce cost and increase productivity
- Optimizing usage of time on more productive activities

2. Cost recovery initiatives

Action Plan

- a) **Identify hidden costs and proper costing in decision making - maintenance, depreciation, utilities**

Expected Outcome

- Increase amount recovered
- Increase income
- Increase transparency

3. Divestment of Non-Core Activities

Action Plan

- a) **Activities that are non-central must be reexamined to evaluate its usefulness and relevance to the core functions of the university**

Expected Outcome

Increase optimizing of assets or space used.

Conclusion

To become a financially sustainable university would require a certain degree of change that will allow USM not just to survive, but also thrive with a focused strategy and a sustainable financial base.

The implementation of these strategies would allow USM to focus on the core, reduce costs, outsource and monetize assets and develop self-sustained and innovative programs to increase income.

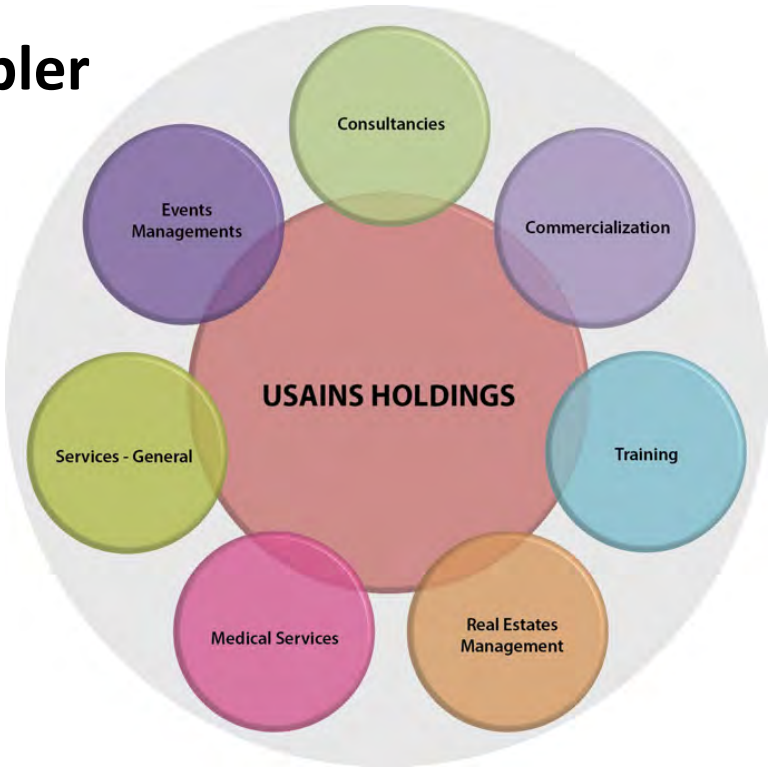
Also together with these clear strategies, streamlined operations, strong financial foundation, trust and accountability, and willingness to invest, these strategies will help to create value for USM.





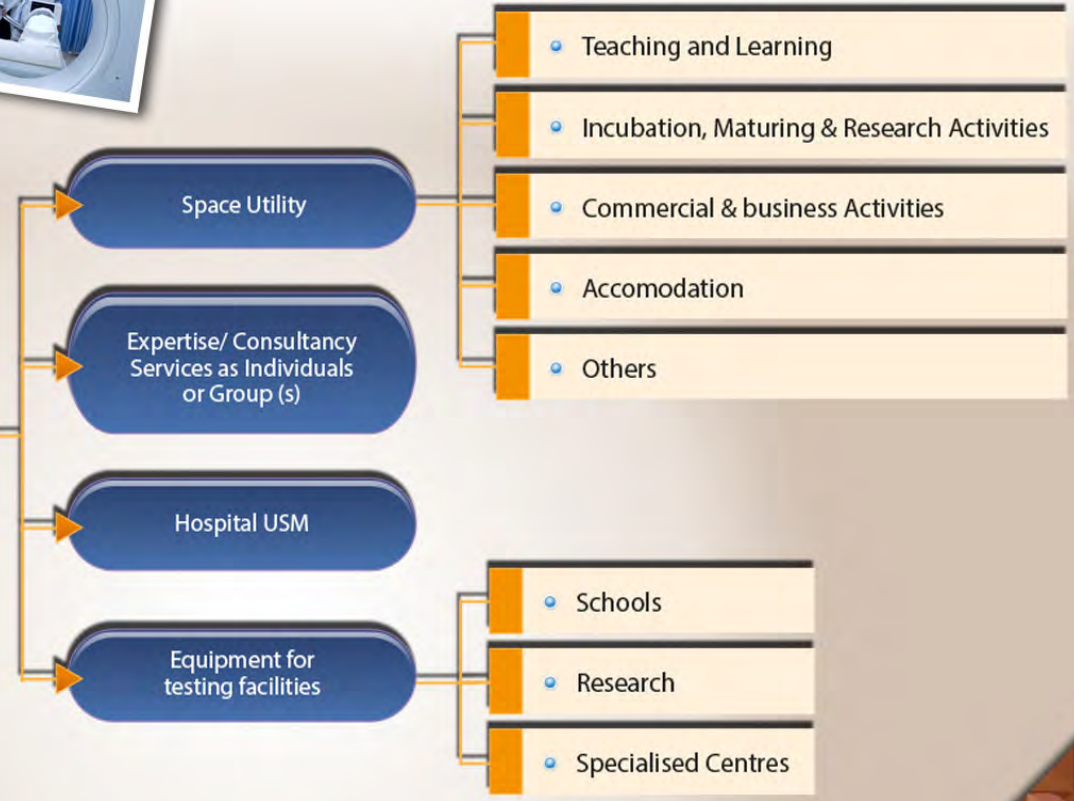
USAINS as Income Enabler

USAINS Holdings, a private arm of the university will undergo a restructuring exercise which will see the realization of its existing functions to act as a holding company that manages small focused subsidiaries. This realignment is a part of USM strategy to widen income generation potential from its subsidiaries.



Services

Services to be commercialised or generate income



P6



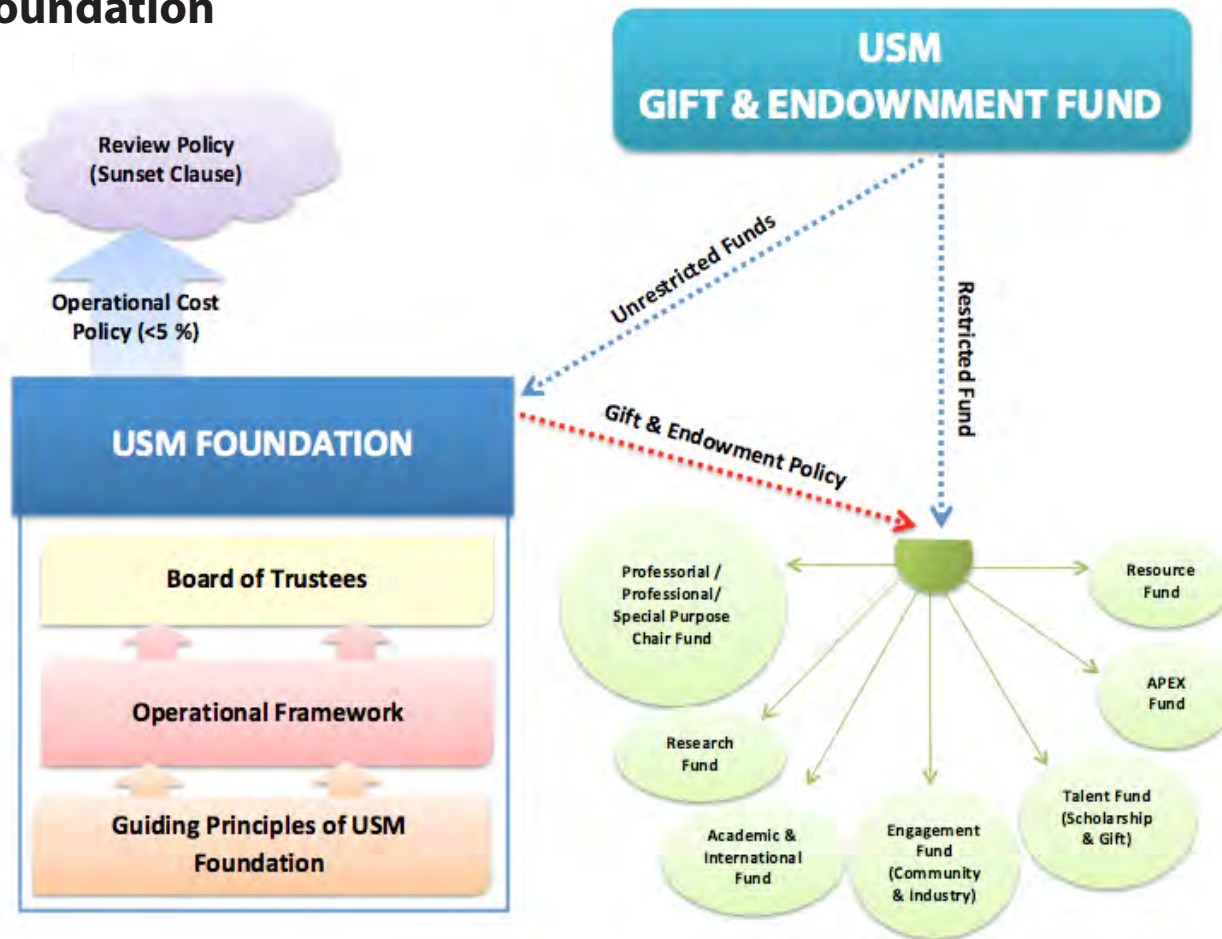
APEX Financial Sustainability Financially Sustainable

Private University

As a part of extension program, USM will embark into the establishment of its private arm in Malaysia, to offer courses in demand. USM looks for a joint-venture development with international partner(s) or perhaps domestic ones. This venture is a part of USM efforts to export quality programs, enhancing Malaysia's position as an international students hub as well as toward generating income to the university's coffers.



USM Foundation



P6



APEX Institutional Development

- ▶ Enhanced & Empowered USM

APEX Institutional Development

Enhanced and Empowered USM

APEX Phase II

Pillar 7



Bertam Campus



USM Teaching Hospital



USM - IDR Ecoheritage Lab



HUSM ; Community Health Hub

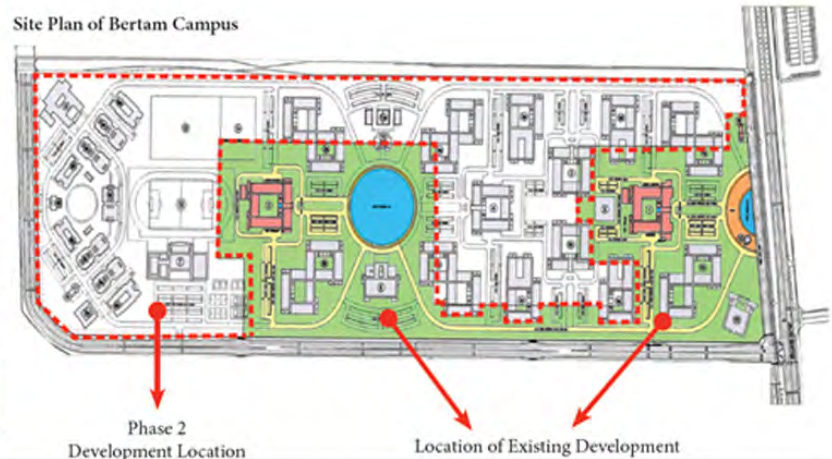


Renowned Engineering Centre

P7



Site Plan of Bertam Campus



A Sustainable & Healthy Lifestyle Campus

- Institut Perubatan dan Pergigian Termaju (IPPT) was established on 16 October 2002 upon approval from the Ministry of Education.
- A post graduate institute specializing in selected medical and dental in areas including clinical service, collaborative research and postgraduate academic programme.
- In APEX phase II, IPPT will be transformed into a new campus of USM focusing on studies in Sustainable & Healthy Lifestyle

THE DEVELOPMENT OF BERTAM CAMPUS

This proposed development will take place on the existing Bertam Campus site at Lot 12675, Mukim 6, North Seberang Perai District, Pulau Pinang with an area of 45.65 hectares (113 acres). At present, the Advanced Medical and Dental Institute (IPPT) is located here and this second phase of development is aimed at facilitating Bertam to become the fourth USM Campus based on the theme of Healthy Lifestyle (in line with the Cabinet Ministers' decision in 2002).

This development project will involve the relocation of academic, research and service centres from the Main Campus, namely the School of Pharmacy, Centre for Drug Research, Doping Control Centre, National Poison Centre as well as the Centre for Advanced Analytical Toxicology Services. The move is expected to increase the capacity of this campus as well as reduce congestion within the main campus and allow for the establishment of a new additional academic programme at the undergraduate level.

The creation of this new academic school, the School of Lifestyle and Sustainability Sciences will facilitate the combination of the existing skills as well as complement

the function and role of IPPT. In addition to this, a Post Graduate Studies Institute will also be established to generate medical, dentistry and science specialists who are competent, holistic and contemporary.

This second phase development will enable IPPT to become the tertiary reference centre in the field of clinical services as well as other related fields such as oncology/radiotherapy and translational medicine which includes Cancer Treatment, Nuclear Medicine, Regenerative (stem cell), Transfusion Medicine, Integrative Treatment and Craniofacial.

This development will also involve the extension of a specialist hospital with the addition of 200 beds. With the presence of these new academic, research and service centres, research and academic activities especially within the field of health sciences will be increased in line with the initial objective of establishing the Bertam Campus. This will also allow for the creation of financial generation, particularly in the Medical and Health Tourism sector.

Cost for Physical Development and the Purchase of New Equipment at Bertam Campus

Direct Expenditure (DE) Method

No.	Component	Proposed Area (m ²)	Cost (RM)	Campus
1	Satellite Campus University Services Building	6350.00	22,225,000.00	IPPT Bertam
2	Academic and Post Grad Complex	4265.00	14,927,500.00	IPPT Bertam
3	School of Pharmacy	33000.00	115,500,000.00	IPPT Bertam
4	Centre for Drug Research	8780.00	30,730,000.00	IPPT Bertam
5	Doping Control Centre	3660.00	12,810,000.00	IPPT Bertam
6	National Poison Centre	4075.00	14,262,500.00	IPPT Bertam
7	CAATS	5915.00	20,702,500.00	IPPT Bertam
8	Equipment and Machinery Shifting Cost		15,000,000.00	IPPT Bertam
9	Advanced Centralized Research Lab	14000.00	70,000,000.00	IPPT Bertam
10	Dental & Craniofacial Referral Centre	4500.00	18,000,000.00	IPPT Bertam
11	Islamic Centre & Hospice	6000.00	10,000,000.00	IPPT Bertam
12	Students Accomodation	38250.00	100,000,000.00	IPPT Bertam
13	Redevelopment of Existing J Block at Main Campus		65,000,000.00	Main Campus
14	Main Infrastructure Costs		44,842,500.00	IPPT Bertam
13	Consultant Fees		56,000,000.00	IPPT Bertam
14	New Equipment and Machinery Cost		90,000,000.00	IPPT Bertam
Total			700,000,000.00	

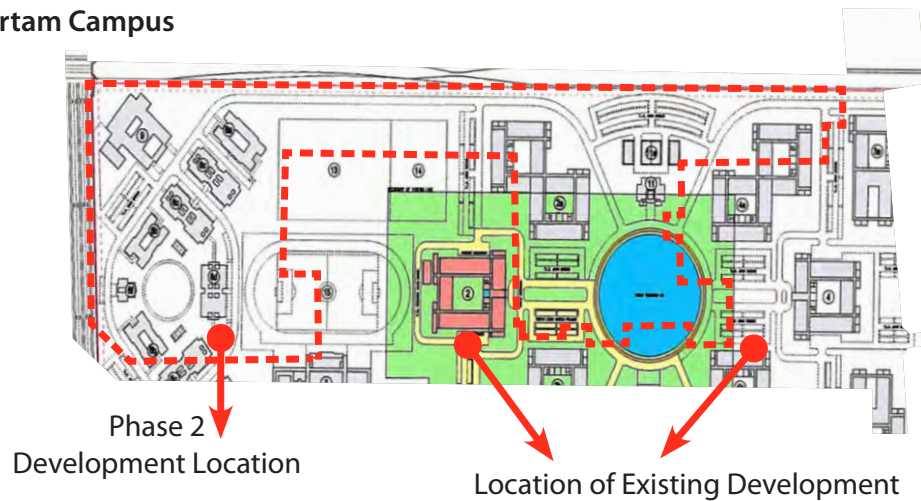
Public Private Partnership (PPP) Method

No.	Component	Proposed Area (m ²)	Cost (RM)
1	200 Bed Teaching and Research Hospital - Oncology and Translational Medicine, Stem Cell and Transplant (with Equipments) - (1 Bed= RM 1,000,000)	30000.00	200,000,000.00
	Consultant Fees and Reimbursables (15% from total cost)		30,000,000.00
	Infrastructure Cost (Road, Drainage, Sewerage, Fire Hydrant, Street Lighting, Contribution to Authorities, Substation, 11kV and Others) (20% from total cost)		40,000,000.00
Total Cost			270,000,000.00

Summary

No.	Component	Cost (RM)
1	Direct Expenditure (DE) Cost	700,000,000.00
2	Public Private Partnership (PPP) cost - 200 Beds and Research Hospital	270,000,000.00
Total		970,000,000.00

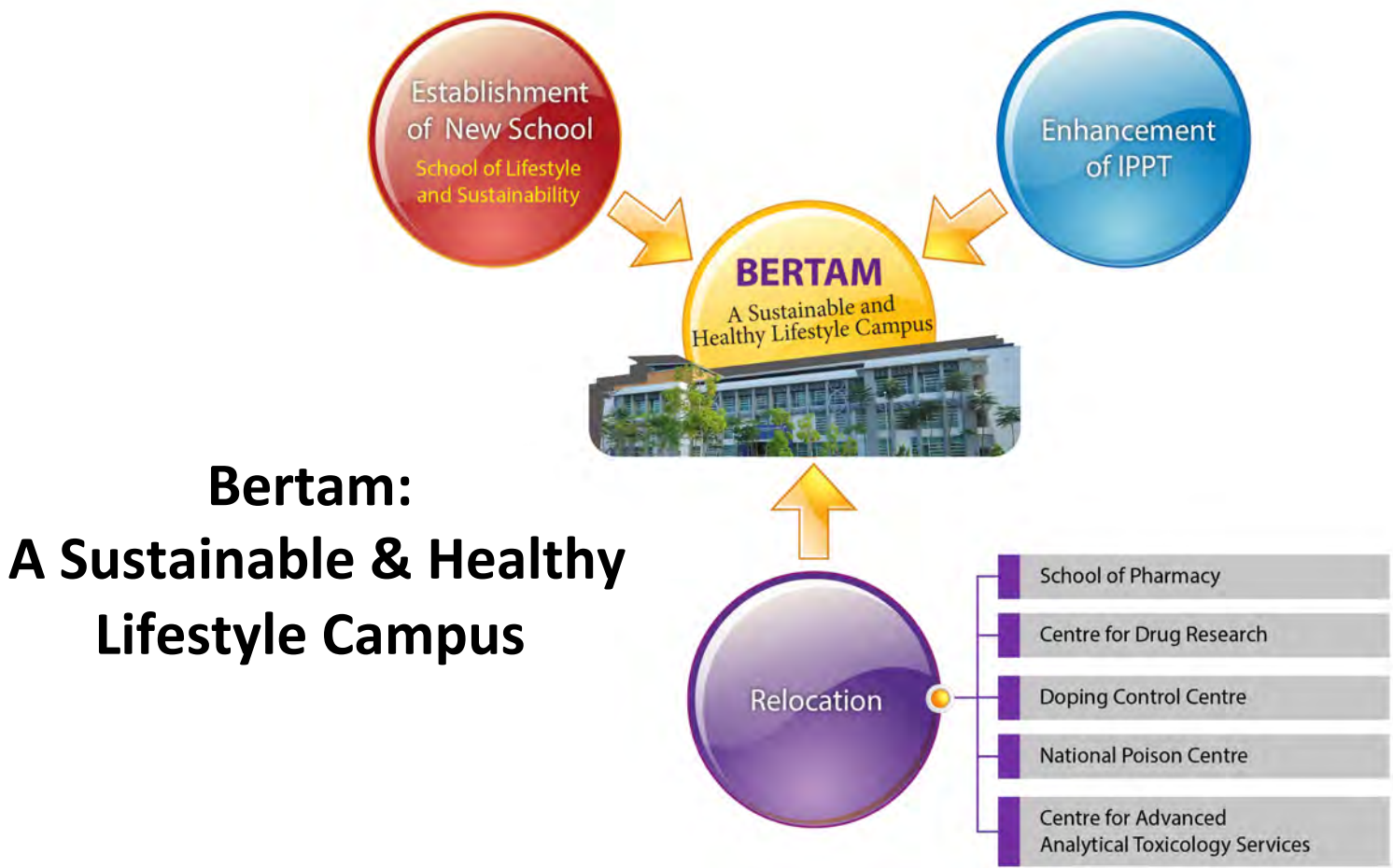
Site Plan of Bertam Campus





APEX Institutional Development

Enhanced and Empowered USM



Hospital USM : Community Health Hub

- ▶ Special strategy to develop USM Health Campus into Community Healthy Hub [Hub Kesejahteraan Komuniti]
- ▶ The campus currently provides various services and education to the general public, contributing the the general well-being of the society.
- ▶ Specific Projects
 - Private Hospital (100 beds) :
 - Hotel for Medical Tourism (3 storeys)
 - Convention Centre



HUSM: COMMUNITY HEALTH HUB

This endeavour is geared to formulate a specific strategy in enabling HUSM at the USM Health Campus to become a 'Community Health Hub'. At present, the USM Health Campus already provides several healthcare and educational service for the benefit of both the local community in Kelantan as well as the community at large of the entire nation. Using this existing leverage, this campus will be strengthened in terms of capacity and capability, by integrating new development projects at the campus, including a private specialist hospital and medical college.

This undertaking will basically be a two pronged approach where the development concept will entail both the introduction of new physical development projects as well as the enhancement of existing services and facilities currently available at HUSM. The key new physical development components are:

- The development of a new 100 bed private specialist hospital;
- The development of a new visitors' accommodation block;
- The development of a new convention centre (750 pax)

Since its inception in 1983, HUSM has yet to increase its number of beds from the original 769 units. To cater for the increasing demand in healthcare treatment as well as the increase in medical specialist students, a new Clinical Block is proposed with the aim of creating 580 additional beds to meet this pressing need and further propel HUSM and the USM Health Campus as an integrated hub for community healthcare.



USM –IDR Ecoheritage Lab at Banding

USM bakal miliki Makmal Semula Jadi

UNIVERSITI Sains Malaysia (USM) buat julung kalinya bakal memiliki sebuah makmal yang digelar Makmal Semula Jadi bagi tujuan kepelbagaian penyelidikan biologi dan biodiversiti setelah menjalinkan perjanjian kerjasama dengan Lakeside Inn Hotel & Resort, Gerik, Perak.

Pembinaan makmal penyelidikan tersebut dijangka di Pulau Banding, Perak memandangkan lokasi kawasan tersebut yang strategik dan berdekatan dengan hutan dara terbesar di Malaysia, Hutan Simpan Royal Belum.

Naib Canselor, Universiti Sains Malaysia



urusan hotel akan memantau makmal... kampus USM bertemu dan menginap... hotel tersebut sebelum memulakan aktiviti... Kredit:...

P7

APEX Institutional Development

Enhanced and Empowered USM

USM Teaching Hospital

- **HUSM was set up in 1983 with 769 beds which could not cater the increasing needs of patients.**
- **From a teaching hospital, HUSM now acts more like a general hospital.**
- **The 9th MP approved a new clinical Block with 580 beds but the project has yet to materialize due to Federal budget constraint. This has affected services rendered by HUSM as well as the teaching and learning of USM medical, dental and Health Science students.**

Renowned Engineering Centre



- ▶ Convention/conference and exhibition centre
- ▶ USM Inn@Nibong Tebal: On- Campus Hotel
- ▶ Guest house (30 units)
- ▶ State-of-the art shared facilities
- ▶ Concentration of talents
- ▶ Recreation and wellness Centre



APEX KEY RESULT AREAS 2014-2025

Transforming Higher Education for a Sustainable Tomorrow

Introduction

In effectuating the strategies and implementation plans as outlined within the APEX Second Phase, specific APEX Key Results Areas (AKRAs) have been devised as a means to implement, monitor and measure overall APEX progress and achievements. These AKRAs are aligned with the 7 Pillars of the APEX Second Phase in ensuring the vision and mission of the University as underlined within the APEX programme are safeguarded, adhered to and eventually realized.

These AKRAs are developed to be an all encompassing framework that not only gauges the implementation status of the APEX Second Phase but also as a mechanism that allows dynamic parameters to be set in actualizing set targets and objectives. The 7 AKRAs derived for the APEX Second Phase are:

- i) Global Research Prominence – WRU
- ii) Part of Developed Nation Builder
- iii) Transformation of Higher Education Institutes
- iv) Visible, Distinctive and Competitive
- v) Prominence in Sustainability
- vi) Financial Autonomy
- vii) Enhanced and Empowered USM

The AKRAs, each underpinned by the 7 APEX Second Phase Pillars, contain specific programmes designed to suit the relevant result areas. These programmes are tailored to produce intended aims in meeting the necessities of the APEX Pillars and will be formulated with certain milestones as means of measuring progress within the stipulated timeframe. Within these programmes, there will be a select group of 'Quick Win' endeavors, aimed at bringing in immediate impacts and results to further propel the programmes. A host of projects, as an extension of these programmes will also be identified, to enable the schools and research centres within the University in leveraging their niche specialization areas towards achieving the aims of the APEX programme.

APEX Key Result Areas

AKRA (APEX KEY RESULT AREAS)	Pillars	Programmes	Quick Win	Projects
1. Global Research Prominence - WRU	Research & Innovation	6	7	
2. Part of Developed Nation Builder	Leadership and Nation Building	4	1	
3. Transformation of Higher Education Institutes	APEX Sharing	3	1	
4. Visible, Distinctive and Competitive	APEX Extension and Positioning	13	3	
5. Prominence in Sustainability	Academic and Students Development	5	1	
6. Financial Autonomy	Financial Sustainability	6	1	
7. Enhanced and Empowered USM	Institutional Development	5	1	
7 KEY AREAS	7 PILLARS	42	15	57 PROGRAMMES

APEX Key Result Areas -Outcome

APEX KRA	PILLARS	3 years	5 years	10 years
Global Research Prominence	1. APEX Research and Innovation	World Class RIU 500	World Class RIU 400	World Class RIU 200
Developed Nation	2. APEX Leadership and Nation Building Programme	25% Graduates International & National Builders	35% Graduates International & National Builders	50% Graduates International & National Builders
Transformation of Higher Education Institutes	3. APEX Sharing	1 RU		
Visible, Competitive and Distinctive	4. APEX Extension and Positioning	Lead or collaborate with Malaysian universities in driving the sustainability, community engagement, high education and local knowledge agendas	Lead or collaborate with Asian universities in driving the sustainability, community engagement, high education and local knowledge agendas	Lead or collaborate with Asia-Pacific universities in driving the sustainability, community engagement, high education and local knowledge agendas
Prominence in Sustainability and Global Mindset	5. Academic and Students Development	More than 20% of the academic programmes are linked globally	More than 30% of the academic programmes are linked globally	More than 30% of the academic programmes are linked globally
Financial Autonomy	6. Financial Sustainability	30% of operational independence (less emolument)	40% of operational independence (less emolument)	50% of operational independence (less emolument)
Enhanced and Empowered USM	7. Institutional Development	30% empowerment and enhancement	40% empowerment and enhancement	50% empowerment and enhancement

Implementation Plan APEX Phase II

APEX KRA	APEX PILLARS & PROGRAMS		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Global Research Prominence - WRU	1. APEX Research and Innovation		World Class RIU 500	World Class RIU 400	World Class RIU 200
	1.1	Research Icons	1.1.1- 1.1.4 Programmes to transform USM researcher to become research icons in their respective field of research		
	1.2	Iconic Research	3 Iconic Research Projects	5 Of Iconic Research Projects	10 Of Iconic Research Projects
	1.3	State-of-Art Research Infrastructure	DE and Strategic Partnerships in strategic areas of nano, materials, medical and life and natural science.		
	1.4	Next Generation Researches	RIKEN (QW)	IPHARM (QW)	CHEST (QW)
			New and emerging niche areas will be identified and explored by leveraging on the next generation of researchers placed within these research centres		
	1.5	Research-To-Market Programmes	From these emerging research niche areas, 100 patents are expected to be granted and subsequently commercialized to the global market		
	1.6	Research Prominence Programme	Programme dedicated with industry to move research to prominence		
Rubber Industry Collaborative Centre			Islamic Archeology	ISDEV	
		Orang Utan Sanctuary			

APEX KRA	APEX PILLARS & PROGRAMMES		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Developed Nation	2. APEX Leadership and Nation Building Programme		25% Graduates International & National Builders	35% Graduates International & National Builders	50% Graduates International & National Builders
	2.1	APEX Talent	Developing Academic and Management Talent Builder		
	2.2	APEX College	Foundation Builder : Goorming Capacity		
	2.3	APEX Scholars	National Builder: Leadership Capacity		
	2.4	APEX Global Fellowships	Global Builder: Explicit Capacity		
Transformation of Higher Education Institutes	3. APEX Sharing		Continuous Sharing Programme National HEIs: Whole Institutions final Destination		
	3.1	Transformation of Rakan RU	1 RU		
	3.2	APEX Governance Best Practices	Selected HEIs		
	3.3	APEX Knowledge Transfer Program	IPTAs ALL	IPTAs Industry and Community	HEIs Industry and Community

APEX KRA	APEX PILLARS & PROGRAMMES		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Visible. Competitive and Distinctive Sustainability Led-University	4. APEX Extension and Positioning		Lead or collaborate with Malaysian universities in driving the sustainability, community engagement, high education and local knowledge agendas	Lead or collaborate with Asian universities in driving the sustainability, community engagement, high education and local knowledge agendas	Lead or collaborate with Asia-Pacific universities in driving the sustainability, community engagement, high education and local knowledge agendas
	4.1	CE for Marginalized Community	4.1.1-4.1.6 6 programmes to be relevant at various levels:		
	4.2	Education for Underprivileged	4.2.1- 4.2.4 4 programmes Bottom Billions intake, Tuition Volunteerism in urban setting, Tuition volunteerism in rural specific community, Education Outreach Overseas		
	4.3	Agro-tecture	Urban Agriculture Transformation with Triple Helix and Triple Talent. University. Industry. Agency Helix. Talent: Practitioners. Researchers and Interns. Targets. Urbanites		
	4.4	Positioning towards Global Prominence	3.1 Putting USM in World Map on Ratings and Benchmarking including Collaborations, Regionalism and Strategic Global Events		
			4.3.2 International Collaboration such between USM and the Sir Walter Murdoch School of Public Policy and International Affairs – Quick Win	4.3.3 USM as Regional Conduit for Example Ambassadors Summit, USM Dialogue on Higher Education, Muslim Vice - Chancellors Conference	4.3.4 STRATEGIC GLOBAL EVENTS and Positions such as GHEC, HEI Global Summit on Sustainability, World University Sustainability Indicator.
4.5	Green Tech Institute	Local Builder Distinctive Capacity			

APEX KRA	APEX PILLARS & PROGRAMMES		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Prominence in Sustainability and Global Mindset	5. Academic and Students Development		More than 20% of the academic programmes are linked globally	More than 30% of the academic programmes are linked globally	More than 40% of the academic programmes are linked globally
	5.1	Global Mindsets	Dedicated programmes for creating right environment with APEX Ecosphere		
	5.2	Global Student Mobility	Enhancement of existing programmes. Creating special curriculum packages/modules for international students (10 modules)		
	5.3	Global Programmes	Moving for Academic and Staff Collaborations Programme in areas of mutual interests. Quick Wins Toyohashi and Peshawar University		
	5.4	Institute of Open Learning	The affordable of higher education accessibility. Should be self sustainable		
	5.5	Centre of Sustainable Tourism Research	To be the first centre in the country to focus on research on sustainable tourism in supporting the nation agenda to make tourism as the number one economic sector of the country		
	5.6	Centre of Liberal and Sustainable Education	New centre which will focus on liberal, local and transdisciplinary. Blue Ocean		

APEX KRA	APEX PILLARS & PROGRAMS		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Financial Autonomy	6. Financial Sustainability		30% of operational independence (less emolument)	40% of operational independence (less emolument)	50% of operational independence (less emolument)
	6.1	Sg2 Revitalization	Phase 1 A : Entrepreneur Centre	Phase 1B : PG/international Accommodation	Phase 1C : Institutional Centre
	6.2	Sains@USM	Phase 2A : Incubator and CREST/EE Centres	Phase 2B and 2C : Full Development	
	6.3	Usains Holdings	Usains Holdings Restructuring and supporting activities of USM that drain USM resources		
	6.4	Facilities & Services	Realisation of Facilities and Services of USM to be rented. Leased or jointly utilised for income generation		
	6.5	Private Hospital	Health Campus to build and operate jointly with a third party for a private hospital and specialists clinic		
	6.6	Private University	Creating or taking over private college to be upgraded to USM private in higher education to create income streams and moving beyond normal academic activities in public universities		
	6.7	Foundation and WAQAF	USM Foundation and WAQAF Set Up for Academic, Research, Students and or Centres or Schools and USM		

APEX KRA	APEX PILLARS & PROGRAMMES		MILESTONE		
			3 YEARS	5 YEARS	10 YEARS
Enhanced and Empowered USM	7. Institutional Development		30% empowerment and enhancement	40% empowerment and enhancement	50% empowerment and enhancement
	7.1	Bertam Campus	Phase 2A: IPPT Enhancement	Phase 2B : Branch Campus Fully Operational	Phase 2C : Auto Branch Campus
	7.2	Hospital USM	Equipment and Services – Continuous		
	7.3	USM Teaching Hospital	Increase in No of Beds to 1000	Focused National Referral Centres - Autonomous	Advanced Regional Referral
	7.4	Renowned Engineering Centre	Phase 1A : Laboratories National Referral	Phase 1B : Conventions and Training Regional	Phase 1C : Autonomous REC and Campus
	7.5	USM Internal Enhancement Programme	Equipment and Services – Continuous		
	7.6	USM IDR Eco-heritage Lab	Quick Win. Pillar 7.	Others	

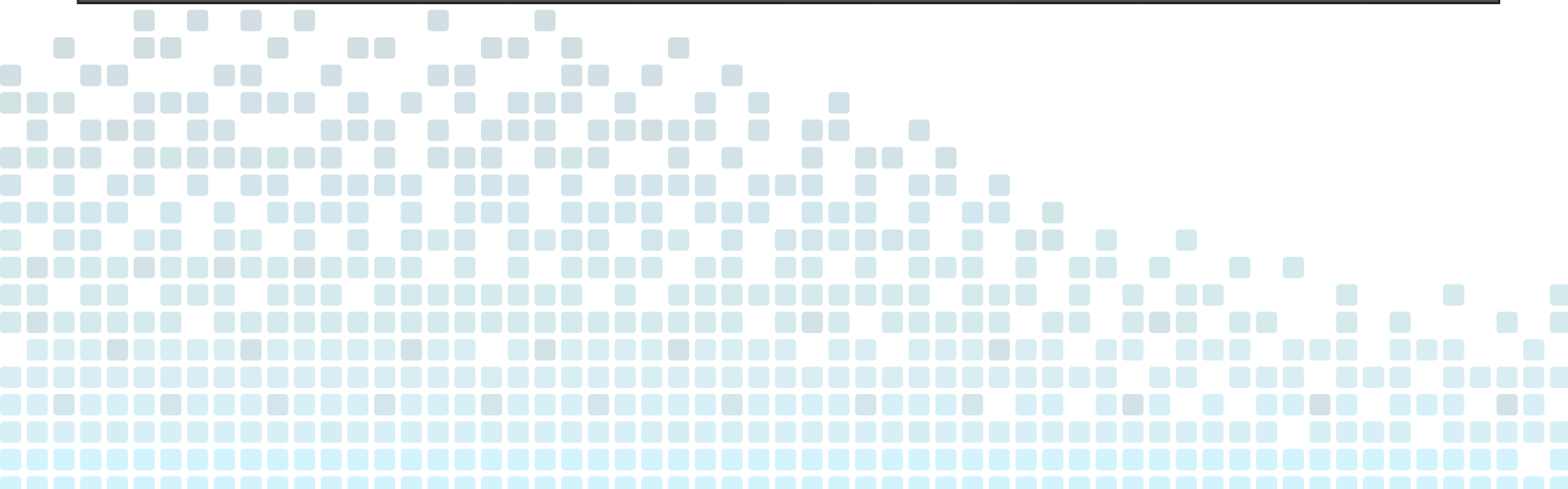
USM SCENARIO 2025

USM	2025	TOTAL	Resources								Governance		
			Main Campus - Exsiting	Main Campus - Recreational Park Utilised	Main Campus - Sains@ USM	Bertam Campus	Engineering Campus	Health Campus	Hospital USM	CEMACS	Management Autonomy	Financial Autonomy	
1	USM Public	Total Area (Hectares)	624.81	253.98	84	12.4	45.65	139.14	87.62		2.02	APEX ACT or Constitution and Statutes	Financial Independence Depends on Success of Programmes
		Schools	27	15	0	1	2	6	3	0	0		
		Research Excellence Centres	24	10	0	3	4	2	3	1	1		
		Community and Industry Centres	7	2	0	1	1	1	1	1	0		
		Admin and Management Centres	11	4	1	1	1	1	1	1	1		
		Students	35000	19000	1900	1000	4000	4500	4500	0	100		
		Academic Staf	3,500	1700	125	90	550	375	650		10		
		Admin Technical and Support	4,500	2175	125	90	700	500	800	100	10		
		Medical STAFF	3,000	-	-	-	500	-	-	2500			

Supported By

2	USM Foundation and Waqaf	Research for Endowment USM	3	USAINS	Income Generator	4	Private Education (PE with 3 or 2 in combination)	Private Colleges	5	Government Funding	OPEX
		Scholarships Endowment USM			Commercialisation Arms			Private Education Linkages			CAPEX
		Building or Lab Endowment			Consultancy			Private Training Linkages			APEX
					Asset Realisation potential Arms			Open learning and/or Distance Education			RU and OTHER GRANTS

6. USM Public Income Generation Inclusive of Students Fees or Other Income Derived Within





Conclusion

APEX is an accelerated program which aims to transform higher education. Having internalised the APEX agenda in Phase 1, USM is now ready to share our experience with others. The vision remains *Transforming Higher Education for a Sustainable Tomorrow*. The cornerstone of APEX has always been to aim for autonomy albeit without ignoring the larger goals of PSPTN. USM has been the testbed for various new transformational initiatives, as seen in Phase 1. Clear roles of all stakeholders are crucial. The APEX planning and implementation in Phase II requires continuous engagement and participation of all, especially Kementerian Pendidikan Malaysia (KPM), Implementation Coordination Unit, Prime Minister's Department (ICU), Economic Planning Unit (EPU) and industries. USM has delivered the requisite outcomes for APEX Phase I. The USM community has made numerous sacrifices despite the lack of financial remuneration. As such the USM APEX program deserves to be continued.

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