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Empowerment of knowledge Nexus

USM tenets of values

Lifelong learning focusing on reflexive responsibilities

USM APEX 2020

A Challenging 2016

Multi tasking

Dynamics in information technology and advanced technology

Wisdom-driven economy and no longer workforce-driven

Future Challenges in Higher Education

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MODEL OF A GLOBAL UNIVERSITY

APEX 2020
REALISING
A GLOBAL
UNIVERSITY

Characteristics of Global University

- Global Mission
- Global Collaboration
- Knowledge Production
- Complex University Organization
- New Roles of Faculty
- Worldwide Recruitments
- Multi-Sector Linkages
- Diversified Funding

Global Mission

"Refer to universities who have mission transcending the boundaries of the nation-state; taking the global perspective and advancing the frontiers of knowledge worldwide. This includes intensified cross-border mobility of students and increased international collaboration of research and scholarly work."

17 Sustainable Development Goals (SDG) by United Nation vs WEHAB + 3

Ranking

Transforming Higher Education for a Sustainable Tomorrow

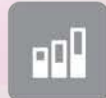Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Model of a Global University

VISION & MISSION USM

GLOBAL AGENDA

SUSTAINABILITY

TALENT

BOTTOM BILLION

RESEARCH UNIVERSITY

TRANSDISCIPLINARY

EMPOWERMENT

VALUES

Quality • Equality • Availability • Accessibility • Affordability • Appropriateness Kualiti • Kesetaraan • Ketersediaan • Ketercapaian • Ketersanggupan • Kesesuaian

Transforming Higher Education for a Sustainable Tomorrow   Mentransformasikan Pengajian Tinggi untuk Kelestarian Hari Esok

USM merupakan universiti perintis, intensif penyelidikan rentas bidang yang memperkasakan bakat masa depan dan mengupayakan golongan terkebawah demi mentransformasi kesejahteraan sosioekonomi mereka

USM is a pioneering, transdisciplinary research intensive university that empowers future talent and enables the bottom billion to transform their socio-economic well-being

Knowledge • The Future • Uniqueness • Sustainability • Humanity • Universality • Change • Sacrifice • Wellness Keilmuan • Masa depan • Keunikan • Kelestarian • Kemanusiaan • Kesejagatan • Perubahan • Pengorbanan • Kesejahteraan

UNIVERSITI SAINS MALAYSIA

Global Mission	Knowledge Production	New Roles of Faculty	Diversified Funding	Multi-Sector Linkages	Worldwide Recruitments	Complex University Organization	Global Collaboration

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Model of a Global University

GLOBAL MISSION MATCHED

SUSTAINABILITY : Building Tomorrow
WEHAB + 3 + 1

UNESCO
United Nations
Educational, Scientific and
Cultural Organization

SUSTAINABLE DEVELOPMENT GOALS

WEHAB + 3

W Water — 6 CLEAN WATER AND SANITATION √

E Energy — 7 AFFORDABLE AND CLEAN ENERGY √

H Health — 3 GOOD HEALTH AND WELL-BEING | 2 ZERO HUNGER √

A Agriculture — 15 LIFE ON LAND √

B Biodiversity — 14 LIFE BELOW WATER | 11 SUSTAINABLE CITIES AND COMMUNITIES √

+1 Climate Change/ Disaster Risk Management — 13 CLIMATE ACTION | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE √

+2 Population/Poverty — 1 NO POVERTY | 10 REDUCED INEQUALITIES | 5 GENDER EQUALITY √

4 QUALITY EDUCATION | 8 DECENT WORK AND ECONOMIC GROWTH | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS √

+3 Production/ Consumption — 12 RESPONSIBLE CONSUMPTION AND PRODUCTION √

+4 Waste management — 17 PARTNERSHIPS FOR THE GOALS √

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Global Ranking

QS Ranking

QS World Universities Ranking

289 (49 Asia)

Academic Ranking of World Universities Ranking

Shanghai Jiao Tong

ACADEMIC RANKING OF WORLD UNIVERSITIES SINCE 2003

401-500

US News Ranking

BEST GLOBAL UNIVERSITIES
USNews 2016
RECOGNIZED FOR
Academic Research and Reputation

Times Higher Education World University Ranking

THE WORLD UNIVERSITY RANKINGS

The Center for World University Ranking

CWUR
CENTER FOR WORLD UNIVERSITY RANKINGS

3 Malaysian Universities listed as world top **1000**. USM leads Malaysian Universities and ranked at **482**

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Knowledge Production

"Universities that are able to produce knowledge in highly legitimate fashion, combining prized scientific and technological advances as well as scientific study of human environments through social science" (IPPTN).

INDICATORS

Number of Papers

Cumulative Citations

Highly cited researchers

Comparison with top Institution

Most Influential Scientific Minds

Rising Star

Global Mission

Knowledge Production

New Roles of Faculty

Diversified Funding

Multi-Sector Linkages

Worldwide Recruitments

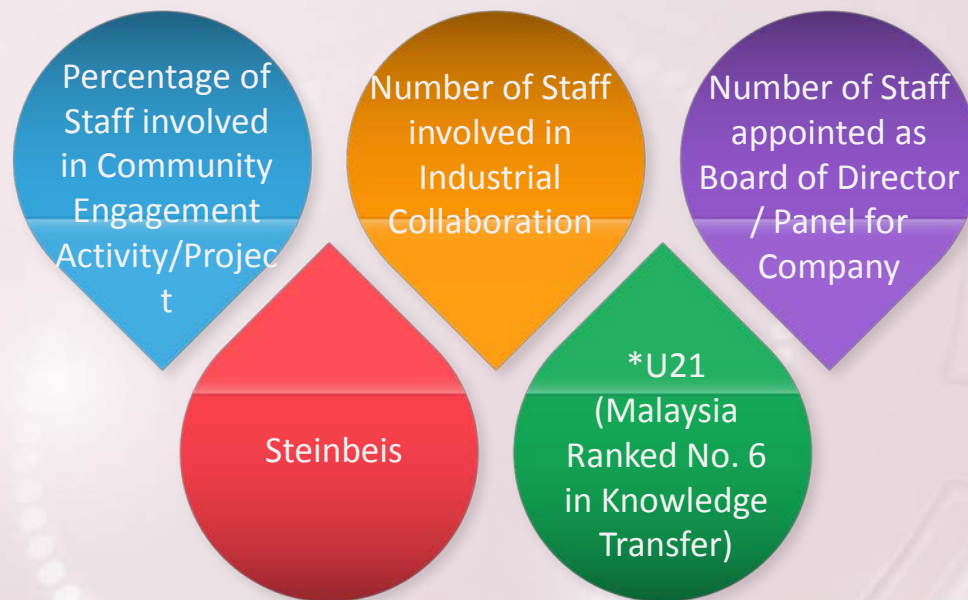Complex University Organization

Global Collaboration

USM a Global University

CHARACTERISTICS OF A GLOBAL UNIVERSITY
Knowledge Production

Knowledge Production in 2014

Number of Papers
2,699

Cumulative Citations
111,269

University	Position in QS Ranking	# Publications*	# Citations**	Citations Per Paper
USM	289	5,278	5,193	0.98
UM	146	8,445	13,225	1.57
Chulalongkorn, Thailand	253	3,764	4,681	1.24
Mahidol, Thailand	295	3,994	6,154	1.54
RMIT, Australia	273	4,165	5,099	1.22
HK Baptist University, HK	281	1,905	3,735	1.96
Waseda University, Japan	212	3,754	5,515	1.47
University of California, Santa Cruz, USA	269	2,895	11,537	3.99

* Source: SCOPUS, Year 2014-2015 (as of Dec 30,2015)
** Total citations for publication in year 2014-2015 (as of Dec 30,2015)

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Model of a Global University

Knowledge Production

Highly Cited Researchers

CITATIONS	Number of Staff
📘 10,000 & above	👤 1
📘 5,000-9,999	👤 6
📘 2,500-4,999	👤 15
📘 1,000-2,499	👤 47
📘 500-999	👤 116
📘 250-499	👤 203
📘 100 & Above	👤 309

309

Staff with more than 100 citations

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Knowledge Production

Most Influential Scientific Minds

- Professor Dr. Bassim H. Hameed
- Professor Dr. Abdul Latif Ahmad

Rising Star

1. Professor Datuk Dr. Abdul Khalil H P Shawkataly
2. Professor Dr. Abdul Latif Ahmad
3. Professor Dr. Abdul Rahman Mohamed
4. Professor Dr. Abd Karim Alias
5. Professor Dr. Hazizan Md Akil
6. Assoc. Professor Dr. Mohd Roslee Othman
7. Professor Dr. Wan Saime Wan Ngah

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration
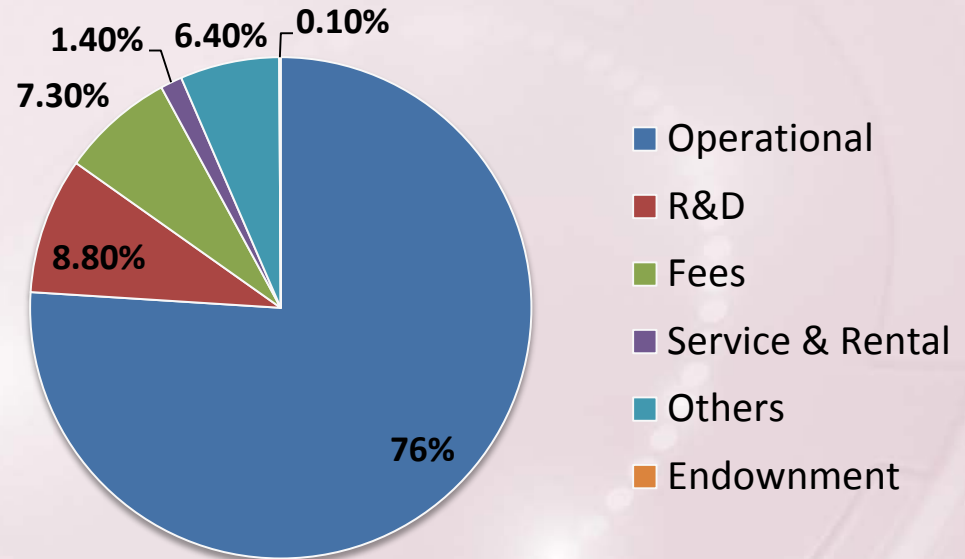
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New Roles Of Faculty

INDICATORS

"Professors are not only expected to publish research and teach, but also to provide service to the universities and utilise their knowledge for the benefit of local, national and international communities

- Percentage of Staff involved in Community Engagement Activity/Project
- Number of Staff involved in Industrial Collaboration
- Number of Staff appointed as Board of Director / Panel for Company
- Steinbeis
- *U21 (Malaysia Ranked No. 6 in Knowledge Transfer)

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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New Roles Of Faculty

	2011	2012	2013	2014	2015
Number of Staff Involved in Industrial Project					
KTP	32	16	25	25	9
RESEARCH	60	67	62	82	74
USAINS	32	32	30	49	21
TOTAL	**124**	**115**	**117**	**156**	**104**

Number of Staff Appointed as Board of Directors / Panel for Company : **20**

Number of Staff Enrolled in Steinbeis Programme: **78**

Global Mission   Knowledge Production   New Roles of Faculty   Diversified Funding   Multi-Sector Linkages   Worldwide Recruitments   Complex University Organization   Global Collaboration

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Diversified Funding

"Universities are expected to go beyond government support and student contribution to diversify their financial resources, with the possibilities to include corporations and private donors, competitive grants for technology innovations and the creation of for profit businesses as spin-offs enterprises." (IPPTN)

TOTAL INCOME (2011-2015)
RM 6.7 Billion

Pie chart values: 76%, 8.80%, 7.30%, 1.40%, 6.40%, 0.10%

Legend:
- Operational
- R&D
- Fees
- Service & Rental
- Others
- Endownment

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Multi-Sector Linkages

"Strong working relationships among universities, governments, businesses, corporations, industries and societies to enhance knowledge creation that lead to sustainable development" (IPPTN).

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USM LINKAGES BY SECTORS 2012-2015

TYPE OF SECTOR FOR 2012-205	NUMBERS OF LINKAGES		TOTAL
	International	Local (Malaysia)	
Academic Institution	203	31	234
Research Centre	23	16	39
Industry	54	202	256
Foreign Agencies	8	-	8
Malaysian Agencies	-	51	51
NGO/Non Profit	7	22	29
TOTAL	295	322	617

Global Mission Knowledge Production New Roles of Faculty Diversified Funding Multi-Sector Linkages Worldwide Recruitments Complex University Organization Global Collaboration
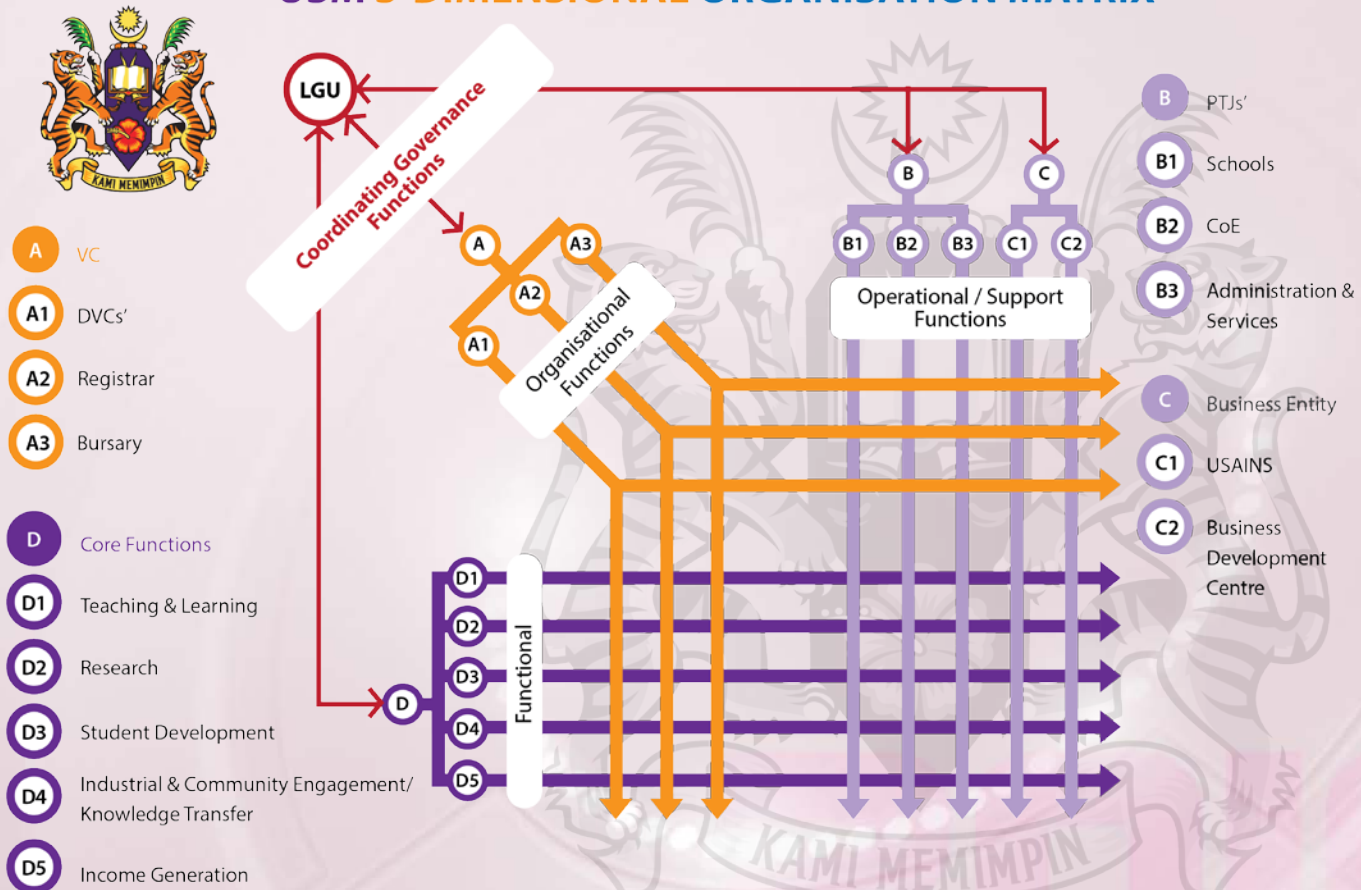
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Worldwide Recruitments

"Adopting worldwide recruitment strategies for students, faculty and administrators, and at the same time taking into account cultural sensitivity" (IPPTN).

- FOREIGN STUDENTS : **3000**
- FOREIGN ACADEMIC STAFF BY COUNTRY : **103**
- FOREIGN FELLOW POST DOCTORAL: **31**
- FOREIGN VISITING LECTURERS : **17**
- FOREIGN NON ACADEMIC : **10**

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Complex University Organisation

"The changing landscape of the institutions posed greater complexity to the internal organisation of the university."

1
2
3

INDICATORS

3-Dimensional Organisation Matrix

Functional Diversity

Height of Hierarchy

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration
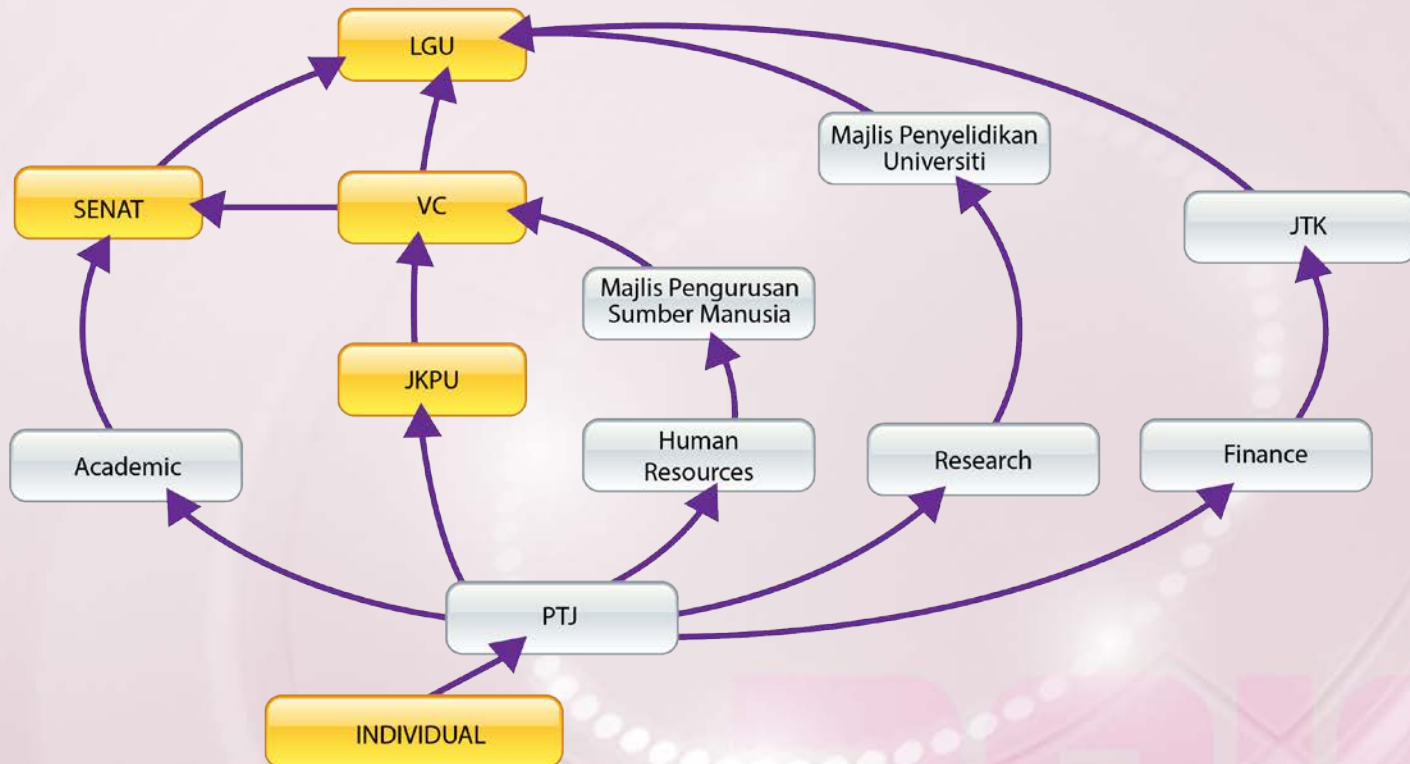
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Model of a Global University

USM **3-DIMENSIONAL** ORGANISATION MATRIX

LGU

Coordinating Governance Functions

Organisational Functions

Operational / Support Functions

Functional

A VC
A1 DVCs'
A2 Registrar
A3 Bursary

D Core Functions
D1 Teaching & Learning
D2 Research
D3 Student Development
D4 Industrial & Community Engagement/ Knowledge Transfer
D5 Income Generation

B PTJs'
B1 Schools
B2 CoE
B3 Administration & Services

C Business Entity
C1 USAINS
C2 Business Development Centre

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration
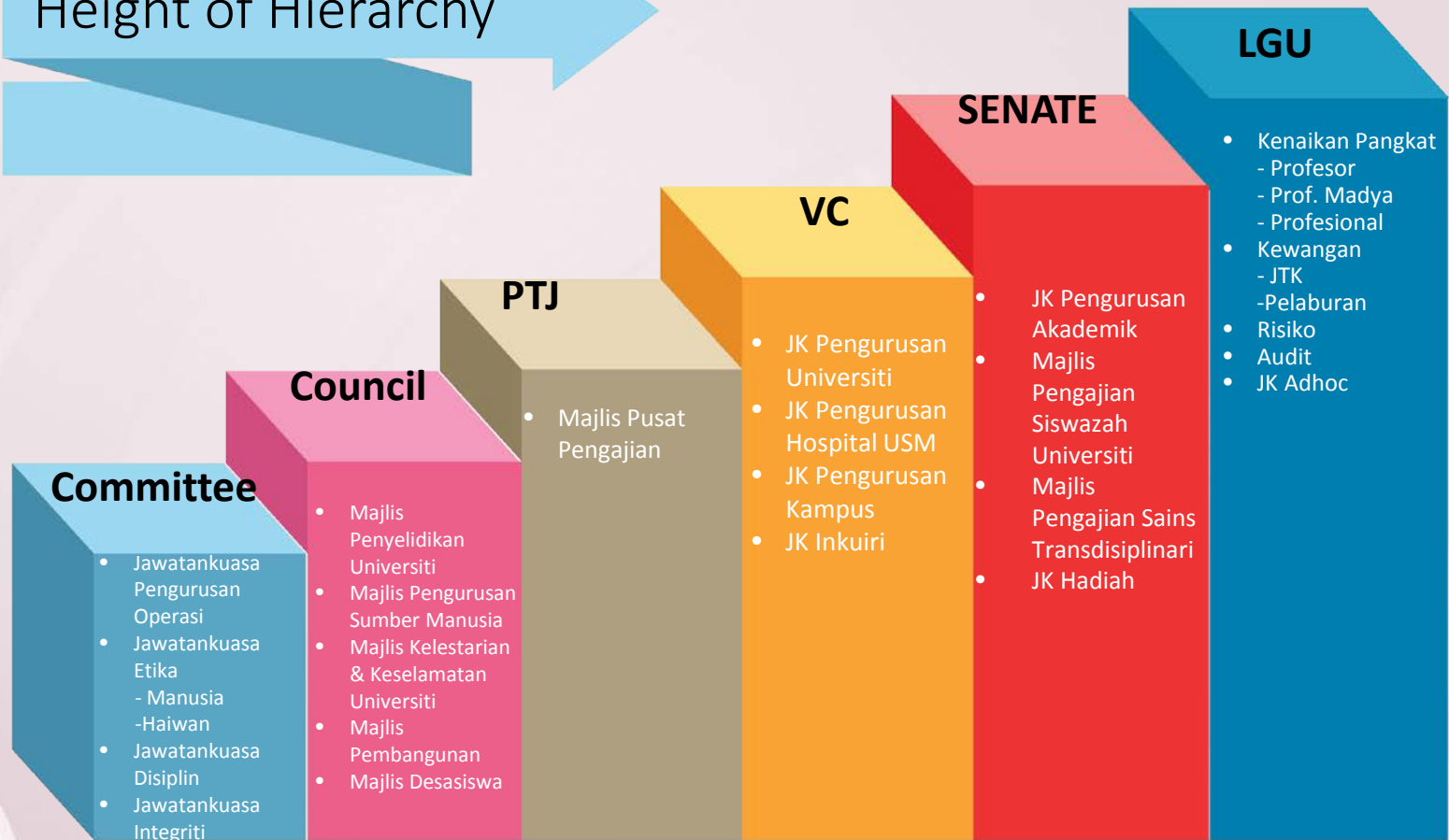
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FUNCTIONAL DIVERSITY

	Schools	CoE	ADM Centre	Services Centre	BDO	USAINS
Teaching & Learning (%)	48	15	-	-		
Research & Innovation (%)	25	35	12	10	7	10
Student Development (%)	10	12	18	18		
Industrial & Community Engagement / Knowledge Transfer (%)	6	12	15	17	18	15
Income Generation (%)	5	12	5	10	50	65
Administration (%)	6	6	50	45	25	10

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HEIGHT OF HIERARCHY

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Model of a Global University

Height of Hierarchy

LGU

- Kenaikan Pangkat
  - Profesor
  - Prof. Madya
  - Profesional
- Kewangan
  - JTK
  - Pelaburan
- Risiko
- Audit
- JK Adhoc

SENATE

- JK Pengurusan Akademik
- Majlis Pengajian Siswazah Universiti
- Majlis Pengajian Sains Transdisiplinari
- JK Hadiah

VC

- JK Pengurusan Universiti
- JK Pengurusan Hospital USM
- JK Pengurusan Kampus
- JK Inkuiri

PTJ

- Majlis Pusat Pengajian

Council

- Majlis Penyelidikan Universiti
- Majlis Pengurusan Sumber Manusia
- Majlis Kelestarian & Keselamatan Universiti
- Majlis Pembangunan
- Majlis Desasiswa

Committee

- Jawatankuasa Pengurusan Operasi
- Jawatankuasa Etika
  - Manusia
  - Haiwan
- Jawatankuasa Disiplin
- Jawatankuasa Integriti

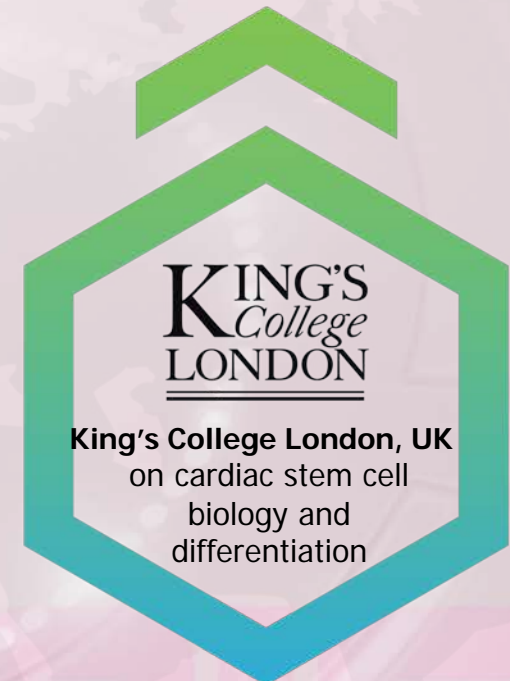| Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration |

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Global Collaboration

"The university seeks to be an active partner with international, non governmental and multi governmental organisations in areas of collaborative research, mobility of students and faculty as well as the validations of international stature of the institution" (IPPTN).

Global Mission   Knowledge Production   New Roles of Faculty   Diversified Funding   Multi-Sector Linkages   Worldwide Recruitments   Complex University Organization   Global Collaboration

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Map of collaboration among university in the world

ASIA	AFRICA	EUROPE	N/S.AMERICA	OCEANIA
517	2	56	31 / 1	10

YEAR 2012-2015 :
 INTERNATIONAL –
FROM **61**
COUNTRIES

CONTINENT	2012	2013	2014	2015	
ASIA	93	93	169	162	517
AFRICA	1	-	1	-	2
EUROPE	7	11	11	27	56
N.AMERICA	3	7	8	13	31
S.AMERICA	-	-	1	-	1
OCEANIA	2	3	4	1	10
TOTAL	106	114	194	203	**617**

MoA- **273**
MoU : **111**
NDA : **9**

Global
Mission

Knowledge
Production

New Roles
of Faculty

Diversified
Funding

Multi-Sector
Linkages

Worldwide
Recruitments

Complex
University
Organization

Global
Collaboration

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Global Collaboration

Research

Harvard University, USA
Postdoctoral research fellow at Department of Surgery, Massachusetts General Hospital, Harvard

University of Oxford, UK
In vivo imaging using MRI, especially on tracking stem cells after administration in small animals.

King's College London, UK
on cardiac stem cell biology and differentiation

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Global Collaboration

Research

Universidad San Francisco de Quito (USFQ), Ecuador

Epidemiological and environmental study on enteric fever in Ecuador;

University of Zimbabwe (UZ), Harare, Zimbabwe

- Carrier status in HIV patient in pregnant women
- Construction of antibody-TCR phage display library from the same participants as above
- Enhancement of the current typhoid detection methods for more efficient production

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Global Collaboration

Research

Tomsk State University (TSU), Russia
Biosains merentasi bidang Biopolimer dan Bioteknologi

NATIONAL RESEARCH Tomsk State University

Toyohashi University of Technology, Japan
Mitigasi logam berat (merkuri, kadmium, chromium, plumbum, arsenic dan lain-lain)

TOYOHASHI UNIVERSITY OF TECHNOLOGY

Czech Republik

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Community based-program

Yale University, USA

Drug addiction

RIKEN, Japan

USM-RIKEN
International Centre for
Ageing Science)

Global Mission · Knowledge Production · New Roles of Faculty · Diversified Funding · Multi-Sector Linkages · Worldwide Recruitments · Complex University Organization · Global Collaboration

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Industry based program

University of California Santa Barbara (UCSB), USA

LED Technology Research Cluster (LEDTREC) for Development of Next Generation Solid State Lighting Based on GaN-on-GaN and OLED

IBM Research – Almaden, San Jose, USA

Academic staff from USM is positioned at IBM to conduct research on Star Polymer nano materials in antimicrobial and drug delivery applications and to transfer the technology back to NanoMalaysia

Global Mission | Knowledge Production | New Roles of Faculty | Diversified Funding | Multi-Sector Linkages | Worldwide Recruitments | Complex University Organization | Global Collaboration

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Training

Newcastle University (NU), UK
Research & Academic Degree

Joint PhD supervision and appointment of research fellows from NU have successfully translated into joint publications

Lorraine University, France

Research collaboration of Materials Science and Double Degree Program

Nagaoka University of Technology (NUT), Japan
Academic degree and industry based program

PIPPA-GLOBAL STRATEGIC PARTNERS

EDUCATIONAL COM. CONS, UNITED KINGDOM ,2014

INDIANA UNIVERSITY, 2012

UNIVERSITY OF PALERMO, ITALY, 2014

SAUDI ARAMCO 2013

QATAR UNIVERSITY, 2014

IMPERIAL TC, QATAR, 2014

NEW! COTI, KOREA 2015

NEW! THE UNIVERSITY OF HONG KONG, 2015

INTAN, MALAYSIA,2013

PIPPA

CITY OF MANDURAH, AUSTRALIA,2012

MURDOCH UNIVERSITY, AUSTRALIA,2012

WORKPLACE DNA AUSTRALIA, 2014

Model of a Global University

Archaeology

Archaeological Research on Sungai Batu, Kedah, 2015 Discovery of iron-smelting evidences at the Sungai Batu site dated 535 BC

Archaeological Research on Bukit Bunuh 2015 Discovery and scientific research

Archaeological Research on Islam Discovery and research collaboration network, 2015

Archaeological Research on Gua Pelangi, Negeri Sembilan, 2015 Discovery of prehistoric Paleolithic culture beginning 14,000 years ago

Archaeological Research on Remnants of Dakota C-47 aircraft in Beruas, Perak, 2015. Discovery of the Dakota C-47 aircraft remnants

Archaeological Research in Gandhara Pakistan Discovery of a Buddhist site at Pashto Academy 2015

USM a Global University

Governance, Management and Foresight

1 Special Constitution to commensurate its autonomy status;

2 Ombudsman - the only University that has a senior officer to deal with the complaints within the University's ecosystem;

3 Legal Division with fair and open approach with proactive attitudes towards University's eco-legal-framework;

4 Whistleblower Policy with emphasis on confidentiality;

5 Integrity Unit operates as the awareness centre on transparency, Qalbu and honesty;

6 Integrity Pack applied to new appointments of Head of Departments;

7 Integrity Pacts for all procurement and tenders in the University;

8 Conflict of Interest Policy as well as the Relationship Policy;

Governance, Management and Foresight

9 Integrity Pledge and Declaration during decision making process;

10 Research Ethics Committee in operation;

11 Comprehensive Plagiarism Policy applicable for both students and staff. Awareness programmes are on a monthly basis;

12 Audit Committee which meets regularly;

13 Risk Management Exercise undertaken and covered by insurance policy;

14 Risk Management principle applied in decision making by appointments of special committees;

15 Consultative process in policy establishment e.g. USM APEX 2020 Blue Print.

Success of the APEX University

Student Empowerment

01 Student Parliament

02 Volunteer Corps *Kor Sukarelawan*

03 Healthy Campus *(Kampus Sejahtera)* programmes

04 Student Based Initiatives (SBI)

05 Entrepreneurship Initiatives

06 Flagship programmes organised by students e.g. Convocation Expo, NRIC & Pesta Hoki

USM a Global University

Student Empowerment

USM Volunteer Corps (*Kor Sukarelawan USM*)

1 A combined effort of 17 separate entities

The Volunteer Corps has a membership of almost 1,500 male and female students **2**

3 A total of 165 programmes have been initiated

Student Empowerment

Entrepreneurship

The first in Malaysia

Comprising of **69** Student Consultative Council members and **50** observers

28 motions have been debated and approved in the Dewan

MyAgrosis Jaya Club Award on 5 December 2015 in conjunction with FAMA 50th anniversary

Won The Best Idea for the 1MET programme Penang State level

Student Parliament

Success of the APEX University

Water Cluster 01
Energy Cluster 02
06
Zero Waste Cluster
SBI
Divided into **6** clusters
Health Cluster 03
Biodiversity Cluster
05
Agriculture Cluster 04

Healthy Campus (*Kampus Sejahtera*)
Student Involvement

Involvement of Campus Community

■ Penyertaan

8008 — 2013
10147 — 2014
11510 — 2015

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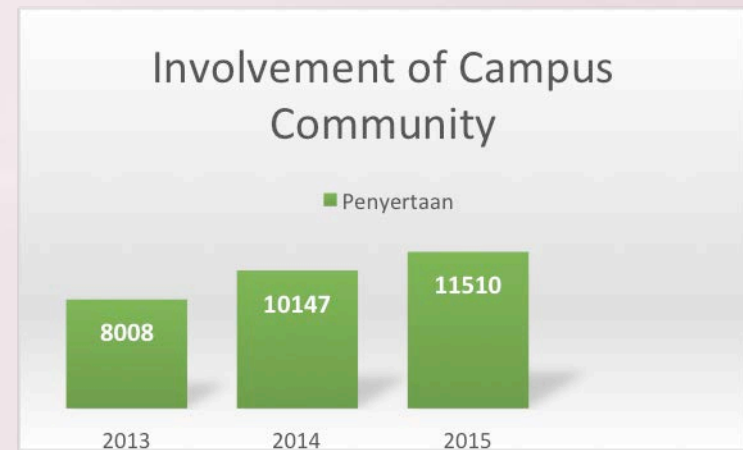
Sustainability

Sustainability roadmap summarises USM's commitment on the future which are implemented through the following programmes:

- Sustainable Development Policy
- Sustainability Road Map – Development of the 5 year USM Sustainability Roadmap (2015-2020)
- Sustainability Assessment Methodology
- Water Energy Health Agriculture Biodiversity (WEHAB) framework
- Master in Sustainable Development Practice (MSDP)
- Centre for Global Sustainability Studies (CGSS)
- Minor in Sustainability offered as an Academic Programme
- Regional Centre for Expertise (RCE) Penang

SAM has been registered as a trade mark with Intellectual Property Corporation Malaysia, 24 June 2015.

WUSA – Won Silver medal at PECIPTA 2015 - Education & Human Development category

USM a Global University

Talent Development for Staff and Students

Recrafting of USM Human Resource Development Framework and HEBAT (Holistic, Entrepreneurial, Balanced, Articulate, Thinker), TeRAMPIL are the main pillars of talent development.

1	MyTalent

International Outreach Programme	2

3	APEX Scholar

My Continuous Student Development (MyCSD)	4

5	TeRAMPIL

Pimpin Siswa II	6

7	My Continuous Professional Development (MyCPD)

Pusat Transformasi Insan	8

9	Centre for Innovation and Productivity in Public Administration (PIPPA)

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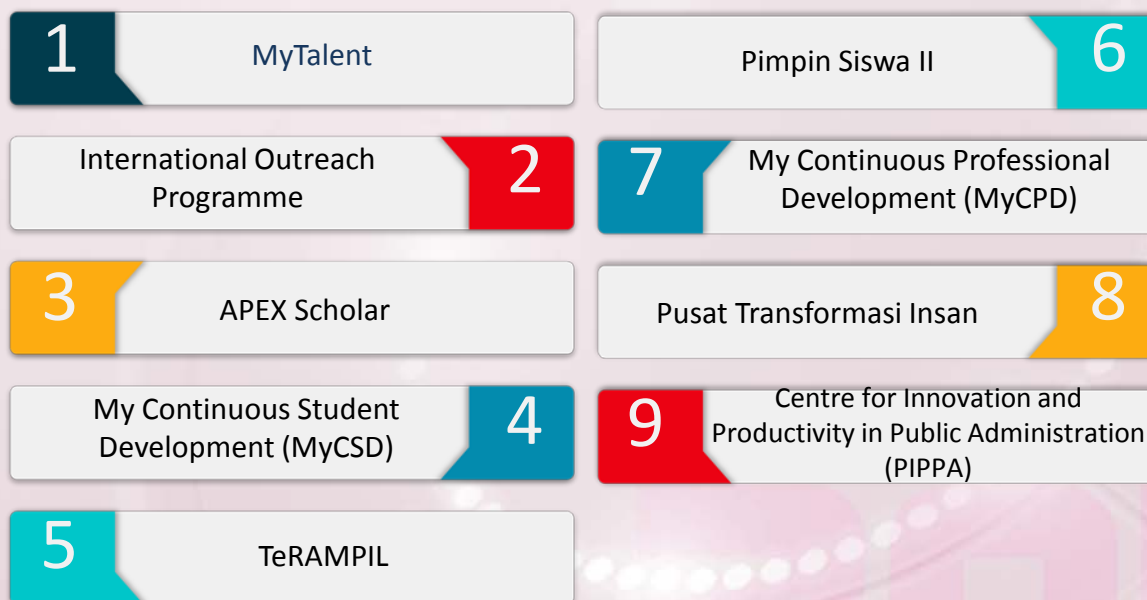
Endowment

01 USM Foundation Total Contribution as of December 15 Mil.

02 Azman Hashim USM Sports Complex

03 Toray Donation

04 Alumni Donation

05 Equation Waqaf ISDEV

TORAY-USM
KNOWLEDGE TRANSFER CENTRE

More than education at USM

USM a Global University

Knowledge Transfer (KT)

Knowledge Transfer (KT)

a) Asia-Pacific University- Community Engagement Network (APUCEN)

APUCEN Membership
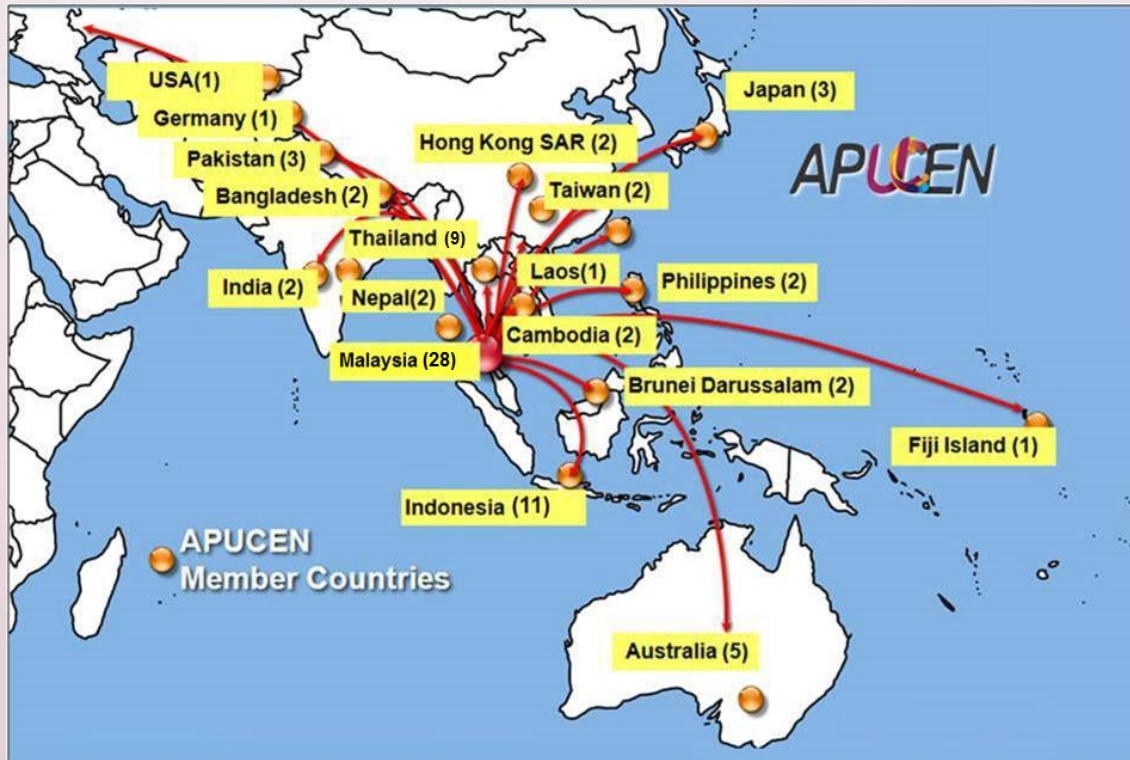
Number of Institutional Memberships **79**

18 Number of Countries

Rebuild Nepal 2015

USM a Global University

Knowledge Transfer (KT)

45 **Members of networking**

38 **Members of networking**

Community Engagement

01

50 Community Engagement Projects

02

UCEC 2015

03

University Community Transformation Centre (UCTC) @USM

04

Innovations for Community (INNO4C)

05

Volunteerism in CE

USM a Global University

Success of the APEX University

Statistics of USM-Industry Collaboration (2012-2015)

Government-Linked Agencies
333
11.5%

Private Industries
1961
68.1%

Grand Total
2881
100%

Non-Government Organisations
57
2.0%

Multinational / International Companies
530
18.4%

International
199
6.91%

National
2682
93.09%

Level of Collaboration

Grand Total
2881
100%

USM a Global University
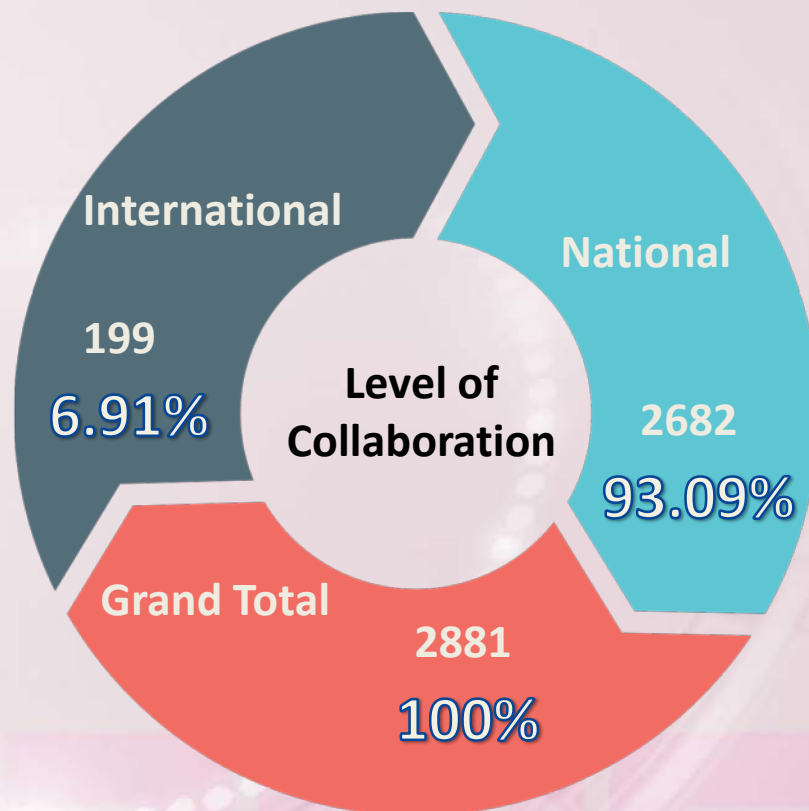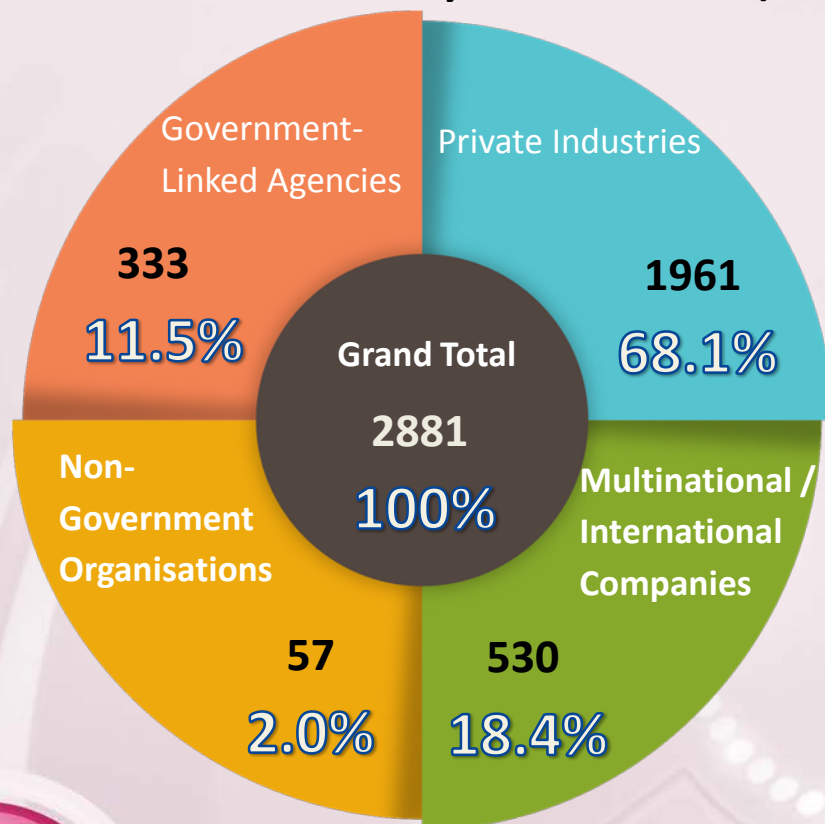
Innovation on Globalisation

USM believes innovation straddles across boundaries and not just product innovation.

Global Innovative Initiatives - Talent Development (T), Research (R) and Academic (A) Activities

KLE International Medical Programme **A**	Scholarly Journals at international levels **R**
APEX Scholar **T**	International Collaborations on research **R**
Penerbit USM **R**	Offshore overseas programmes e.g. Medan **A**

**USM Press (Penerbit USM)
Publisher of Academic E-books Malaysia**

Penetrating 18 countries worldwide and counting…

USM Press (Penerbit USM)
Leading publisher of Academic eBook in Malaysia

Rakan Strategik Global dalam Pemasaran eBuku

Innovation on Academic Globalisation

School of Distance Education and Universitas Pembangunan Pancabudi, Medan, Indonesia offshore project	USM-KPT (Politeknik Port Dickson) offshore project	KLE International Medical Programme	Dual Masters (MSc and MEng between USM and Eastern Bavarian, University of Technology, Regensburg, Germany)	Dual PhD USM with	Pusat Serantau Pengajian Pengurusan Pembangunan Islam (ISDEV)
1	**2**	**3**	**4**	**5**	**6**

5.1 UNIVERSITÉ DE LORRAINE

5.2 Newcastle University

5.3 Universite de Lorrainde (UL) Nancy, France — La Rochelle UNIVERSITÉ

5.4 Communauté UNIVERSITÉ Grenoble Alpes

5.5 Nagaoka University of Technology, Japan — 長岡技術科学大学 Nagaoka University of Technology

USM a Global University

01 — **Royal Society Chemistry accredited programme**

02 — **International academic and accreditation programme (Bachelor of Food Technology Programme)**

03 — **Accreditation of *The Association to Advance Collegiate Schools of Business (ACCSB)***

International accreditation of selected academic programmes

Innovation on Globalisation Academics

Academic Pathways

Academic Excellence in USM does not only encompass the ability to excel in scholastic activities. It is also about providing an ambiance that supports a culture to maximise the intellectual capability, capacity and skills in service to humanity.

01
Global Student Admission criteria

02
Admissions Diversity

03
Undergraduate Curriculum Revision

04
Postgraduate Curriculum Review

05
Co-Tutelle programme

06
Double degree overseas

07
Joint Degree Programme

Success of the
APEX University
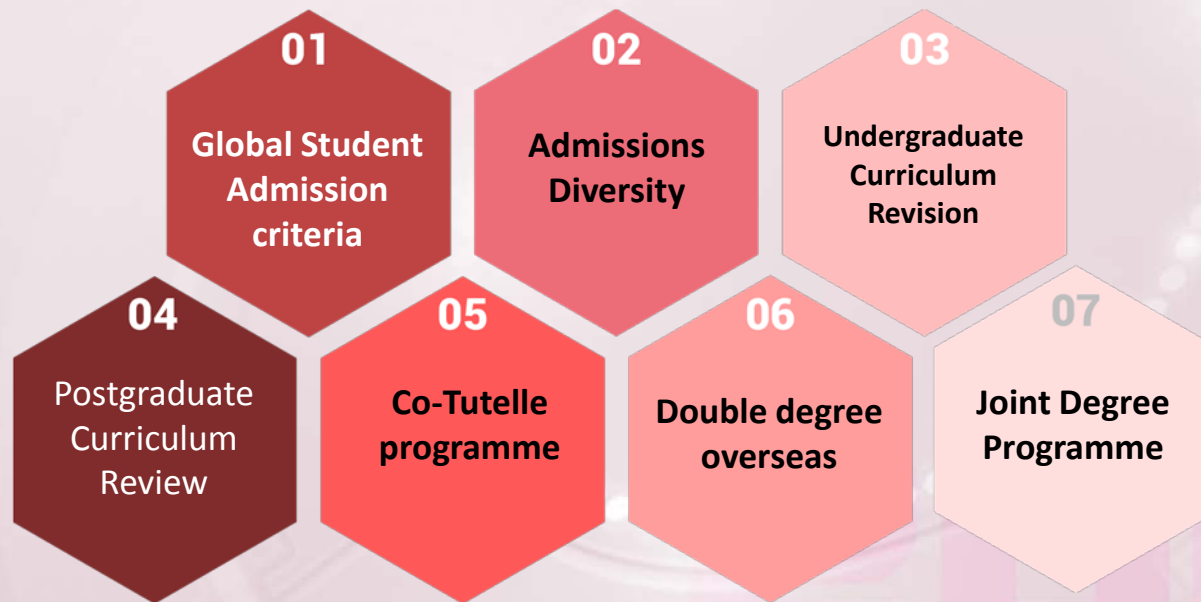
Academic Pathways

1 ⟩⟩ Industry Advisory Panels at School levels

5 ⟩⟩ CEO Initiative

Industry/community in the classroom ⟨⟨ **2**

CEO Talk ⟨⟨ **6**

3 ⟩⟩ Internship Model (for effective and efficient placement of students in the industry)

7 ⟩⟩ CEO talks and industrial classrooms

CEO-I at USM ⟨⟨ **4**

CEO Visit and CEO Fellow ⟨⟨ **8**

USM a Global University

Academic Pathways

Joint Degree USM-UPSI

01 Master of Cognitive Neurosciences

02 Master of Psychology (Clinical)

03 Doctor of Psychology (Clinical Psychology)

04 Doctor of Psychology (Clinical Neuropsychology)

Flagship programmes with multidisciplinary approaches:

01 Heritage Science Programme

02 Master in Sustainable Development Practice

USM a Global University

Academic Pathways

USM has developed 3 MOOC and these courses are:

Universiti Sains Malaysia (USM) MOOC

WINNING CORPORATE STRATEGY FOR BUSINESS

★ 0 kudos

History of New Media

★ 0 kudos

INTRODUCTION TO WOMEN'S AND GENDER STUDIES IN THE

★ 0 kudos

DISASTER MANAGEMENT

Capability to provide infrastructure during emergencies

The only operational hospital during the flood

Reference for the State Government for Emergency Cases

500 volunteers of staff & student

Reference Centre for KKM and Operational Room

ROLES OF HUSM IN DISASTER MANAGEMENT (FLOOD)

USM a Global University

APEX 2020

17
PERFORMANCE
INDICATORS

18
TARGETS

8
KEY FOCUS
AREAS

3
STRATEGIC
OBJECTIVES

5
SITUATIONAL
ANALYSIS

USM a Global University

APEX 2020

APEX 2020

SO 1
TALENT

To develop globally competitive talent relevant to national and international needs

- Students
- Staff

SO 2
RESEARCH

To enhance USM research ecosystem supporting national development and achieving Global Prominence

- Global Research
- National Development

SO 3
INSTITUTION

To enhance institution based on ethical principles; financial and environmental sustatinability

- Values
- Finance
- Sustainability
- Governance

USM a Global University

APEX 2020

SO1 TALENT

To develop globally competitive talent relevant to national and international needs

KFA 1 — **STUDENTS**

KFA 2 — **STAFF**

SG 1 : Nurturing, developing and enhancing Graduates with HEBAT attributes

- S1 : Early talent scouting and improve enrolment and intake mechanism
- S2 : Improve student development policy
- S3 : Alumni mentoring
- S4 : Expand student international networking, mobility and exchange programs
- S5 : Inculcate strong values and ethical principles utilizing APEX core values.

SG2 : To promote academic excellence

- S1 : Enhancing academic programs with a competitive edge, utilizing curriculum and flagship program
- S2 : Achieve excellence in Teaching and Learning
- S3 : Enhance global presence

SG : Nurturing globally competitive talent relevant to national needs, and able to compete internationally

S1 : A Clear and Comprehensive Policy

S2 : Ensure that staffs training are in line with USM's mission and vision.

S3 : Constantly provides motivation and appreciation

SO : Strategic Objectives   **KFA** : Key Focus Areas   **SG** : Strategic Goals   **S** : Strategies

USM a Global University

www.usm.my

APEX 2020

SO2 RESEARCH

To enhance USM research ecosystem supporting national development and achieving Global Prominence

KFA 3 — **GLOBAL RESEARCH**

SG : To enhance USM research eco-system for global research prominence

- S1 : Sustain and synergize three fields
- S2 : Sustain funding
- S3 : Optimized resources
- S4 : Strengthening cohort
- S5 : Ensuring access to talent

KFA 4 — **NATIONAL DEVELOPMENT**

SG : To provide solutions for national development through relevant research
S1 : Enhance knowledge and technology transfer
S2 : Create competitive and innovative entrepreneurship ecosystem
S3 : Become a national referral and repository centre for identified NKRA
S5 : Enhance capital development to meet demands of local and global job market

SO : Strategic Objectives   **KFA** : Key Focus Areas   **SG** : Strategic Goals   **S** : Strategies

USM a Global University

www.usm.my

APEX 2020

SO 3 INSTITUTION

To enhance institution based on ethical principles; financial and environmental sustainability

KFA 5 — **VALUE**

SG : Value-driven institutional: embedded with Rukun Nilai USM

- S1 : Ensure high performance and excellent talent inculcate with Rukun Nilai USM
- S2 : Towards good governance and effective communication
- S3 : Student excellence embedded with Rukun Nilai USM
- S4 : Empowerment of alumni grounded with Rukun Nilai USM

KFA 6 — **FINANCE**

SG : Transforming the financial system through optimization, saving and income (OSI)

- S1 : To be granted financial autonomy
- S2 : Restructure university businesses
- S3 : Initiate cost rationalization at all levels
- S4 : Generate income through various business activities

KFA 7 — **SUSTAINABILITY**

SG : Sustainability: Building tomorrow

- S1 : Acculturate sustainability mindset
- S2 : Develop institutional framework for sustainable development
- S3 : Implement sustainability agenda

KFA 8 — **GOVERNANCE**

SG : International benchmarking and good governance

S1 : Improve USM's position as one of the top 10 universities in the Asia Pacific, in selected areas
S2 : Achieve excellence governance through autonomy empowerment
S3 : Intensify internalization, visibility and connectivity
S4 : Ensure conducive environment and working culture to harness professional mindset
S5 : Ensure the SSU-USS is adopted by the university community.

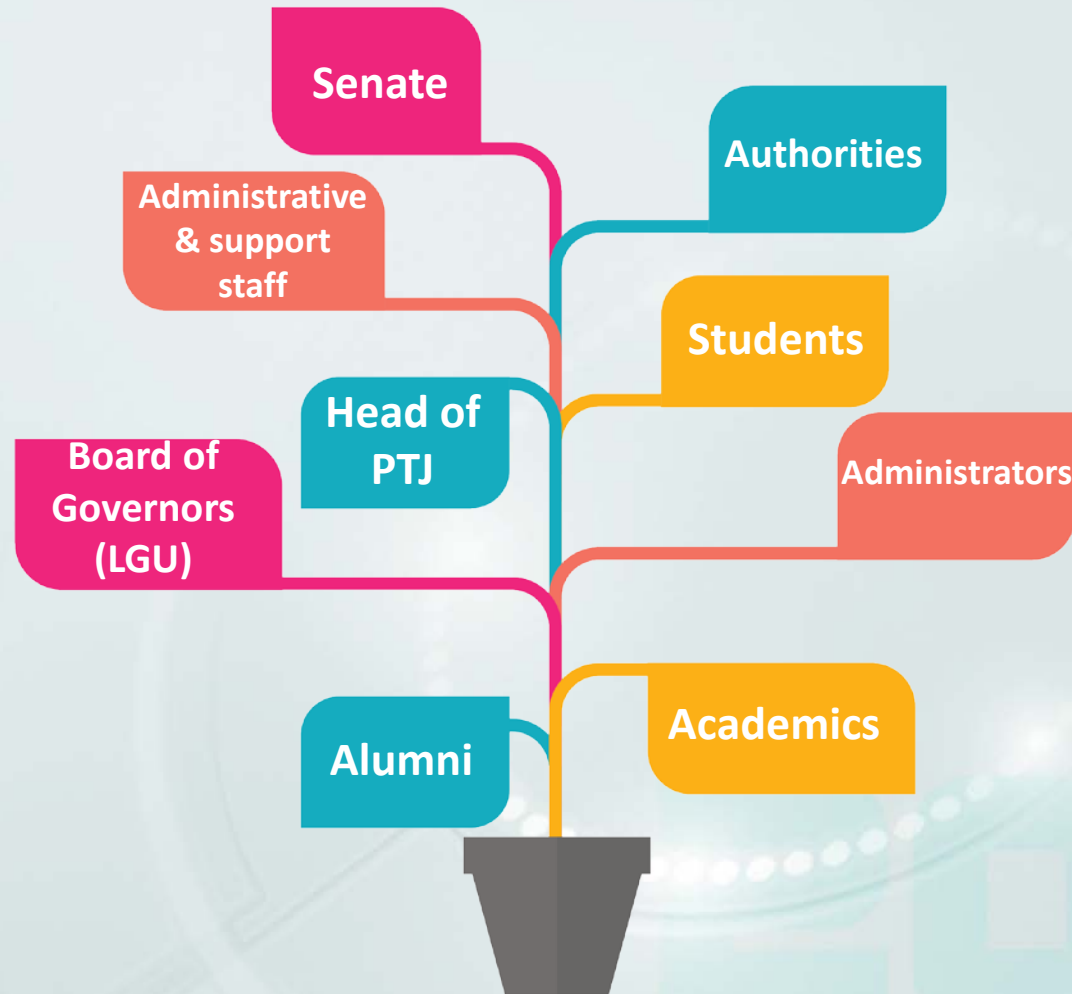**SO** : Strategic Objectives   **KFA** : Key Focus Areas   **SG** : Strategic Goals   **S** : Strategies
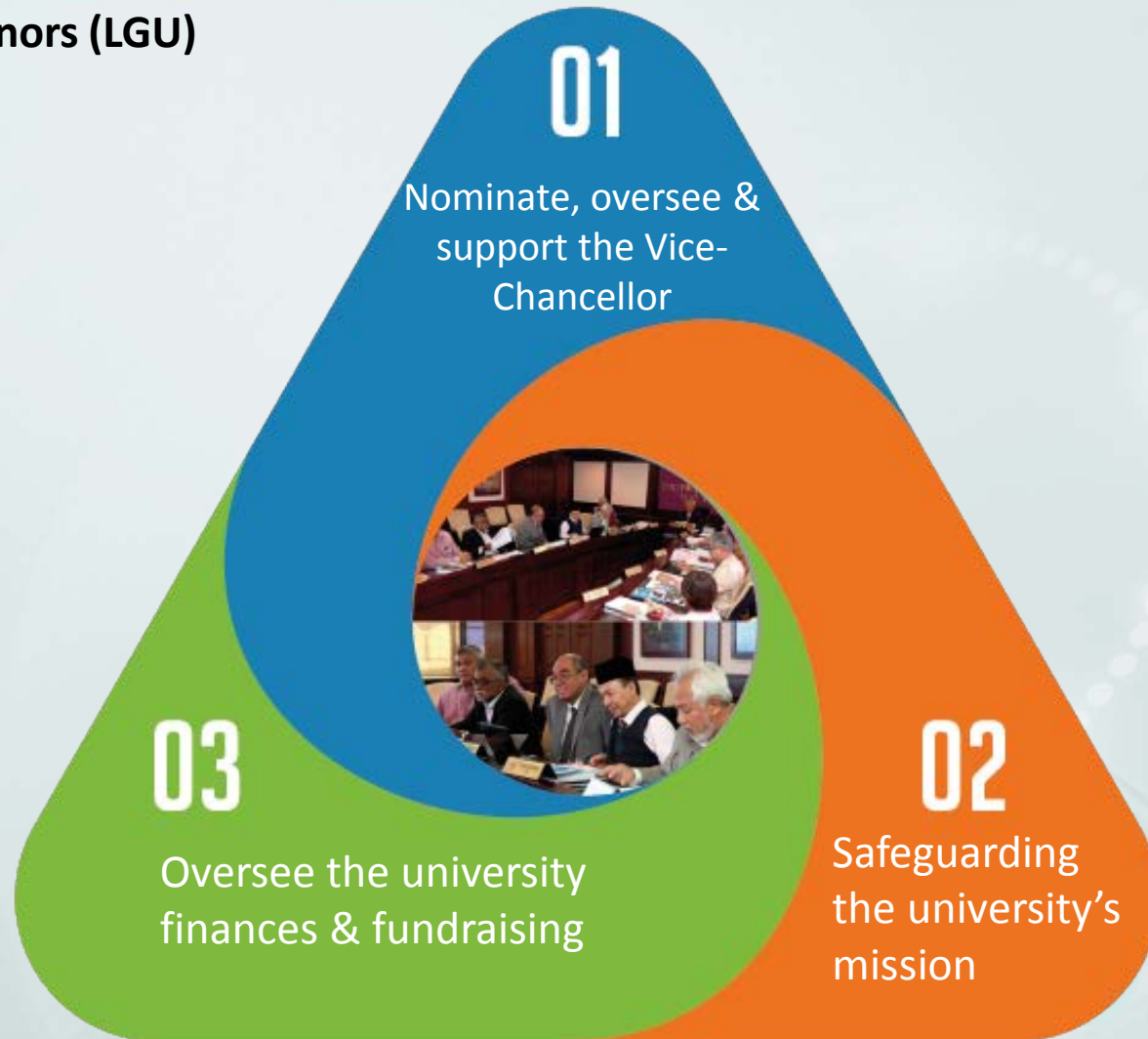
8 KEY FOCUS AREAS USM APEX 2020
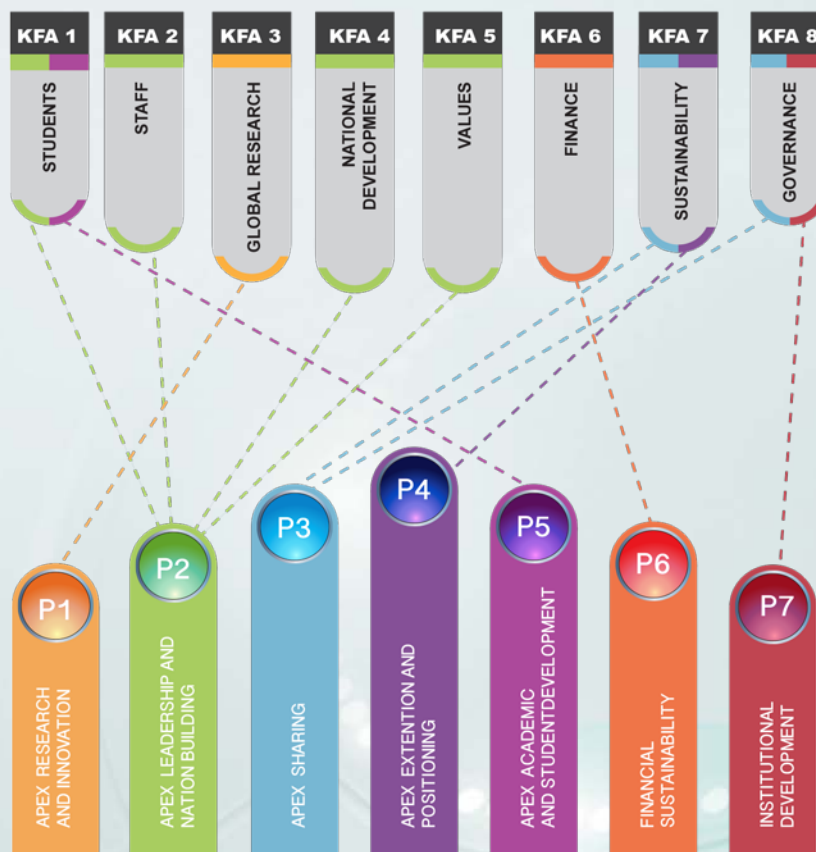
7 PILLARS APEX PHASE II

Board Of Governors (LGU)

01 Nominate, oversee & support the Vice-Chancellor

02 Safeguarding the university's mission

03 Oversee the university finances & fundraising
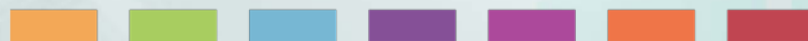
The Authorities (Government & Agencies)

01
Reduce Bureaucracy

02
Adhering to good governance practices

Head Of PTJ

To be a role model

To be a holistic leader

Move the resources and entire staff to work together

USM a Global University

Academics

HAVING A GLOBAL MINDSET

TO BE PROMINENT AND EMINENT

ENHANCE COLLABORATION AND NETWORKING

USM a Global University

Administrator

PRODUCTIVE AND EFFECTIVE

01

04

LEARN & E-MANAGEMENT

GLOBAL MINDSET

02

03

INTEGRITY & ACCOUNTABILITY

Administrative and support staff

01 **Following Procedures**

02 **Practicing high integrity and accountability**

03 **Effective, productive and knowledgeable**

USM a Global University

Students

Having a global mindset and competitiveness
01

Use empowerment given to engage in activities that benefit the society
02

03
Embrace HEBAT (Holistic, Entrepreneurial, Balanced, Articulate, Thinker)

04
Having the APEX Scholar values

Alumni

① Contribute in nation building in multiple sectors

② Contribute back to the University and globally

③ Working together with the university

2016 FOCUS

Key Word

External

Social performance

Competitive performance

Financial performance

Short-term
Mid-term
Long-term

Departmental performance
Key focus areas performance
Goverment functions performance

Time

Internal
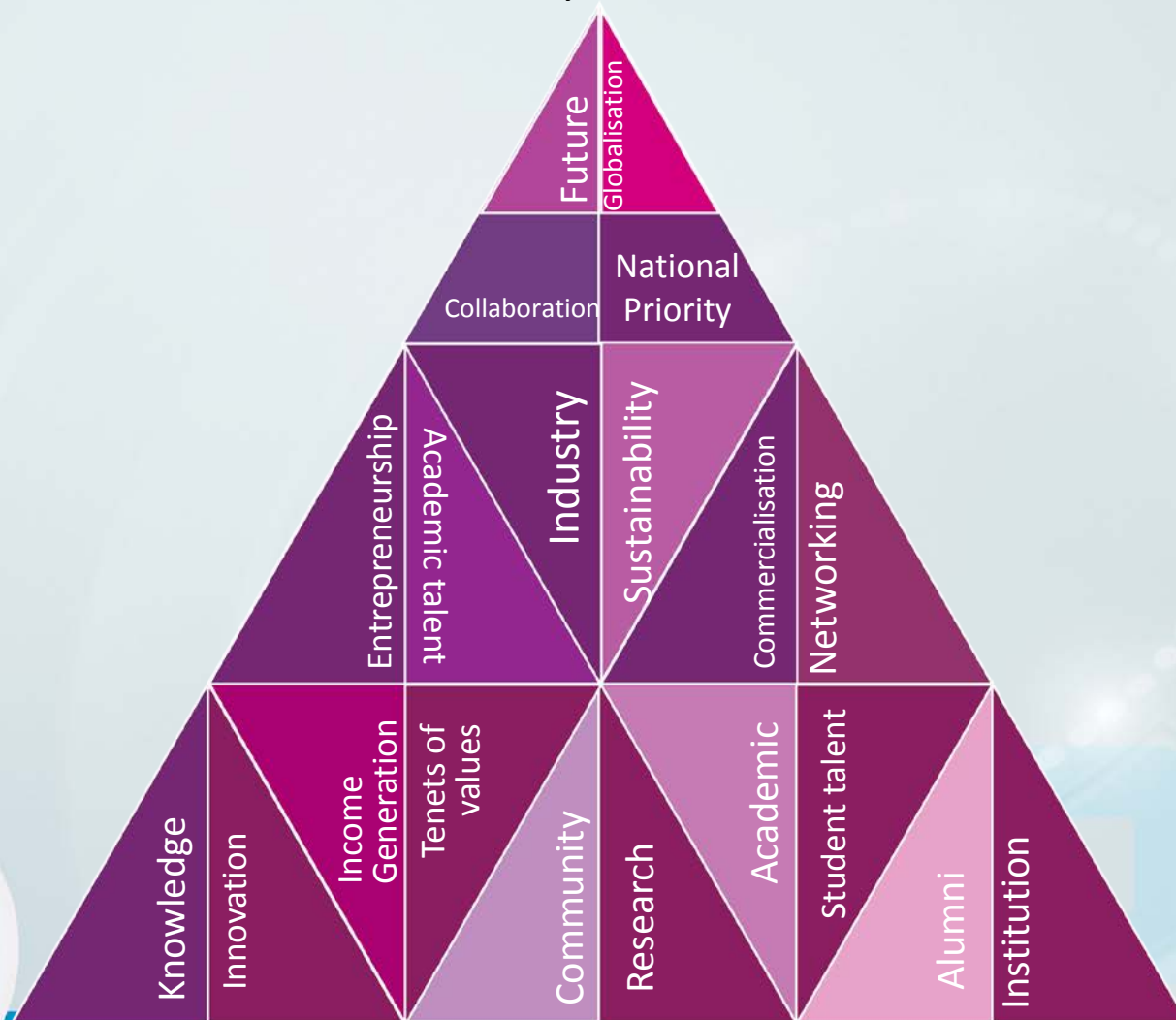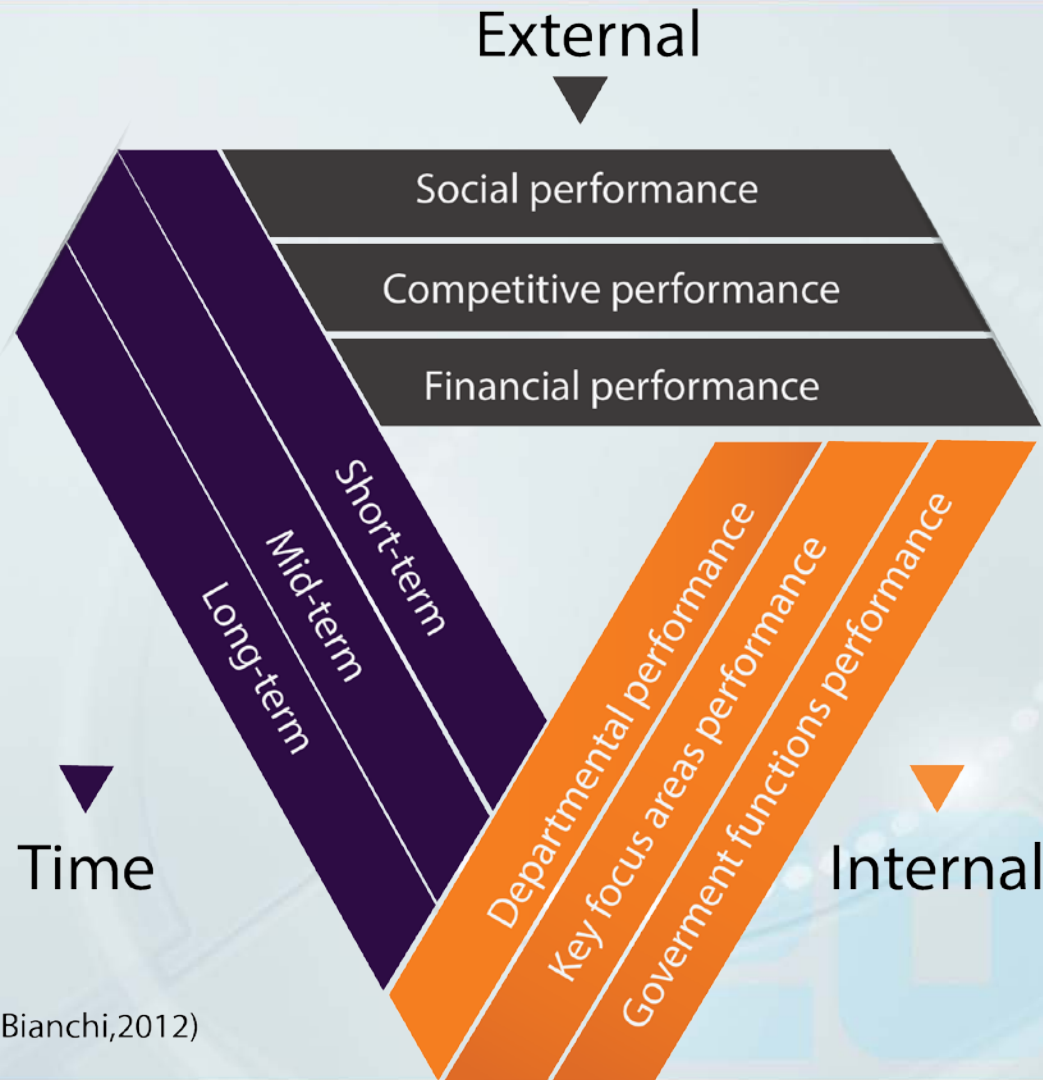
(Sumber : Bianchi,2012)

USM a Global University

www.usm.my
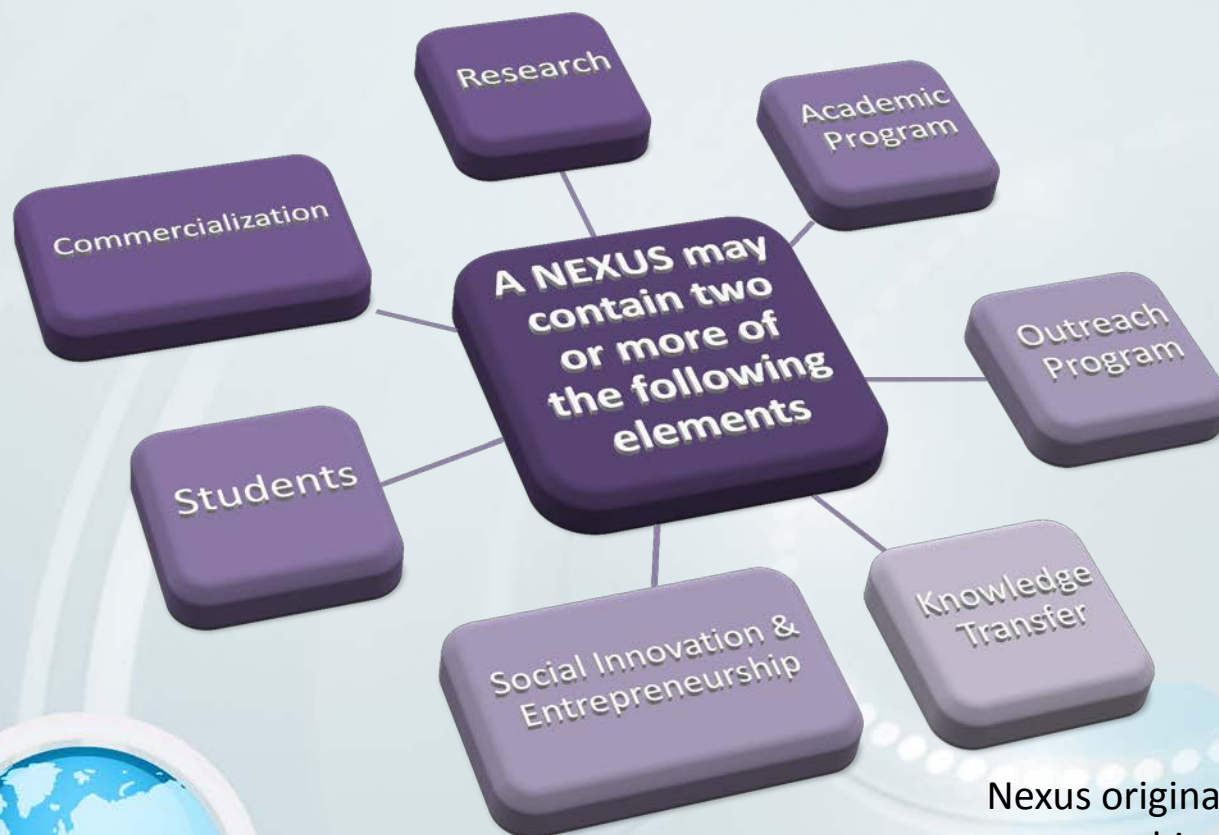
UNIVERSITY KNOWLEDGE BASED NEXUS (UkBN)

Re-focus USM research activities based on thematic issues that are embedded on issues and challenges of national socio-economic development, involving perspectives from various disciplines through the creation of *NEXUS*

Nexus originates from Latin circa 1655, to mean binding, joining, or fastening

Population/Society Well Being

Water Security

Environmental Sustainability

IDENTIFIED
UkBN THEMES

Disaster Management

Heritage and Archaeology

Urbanisation

SMEs (USM4SME)

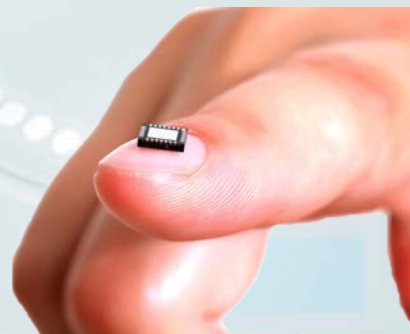Public Sector Delivery & Productivity

USM a Global University

2016 FOCUS

Developing Niches

Section D

QS World University Rankings by Subject 2015: Environmental Science
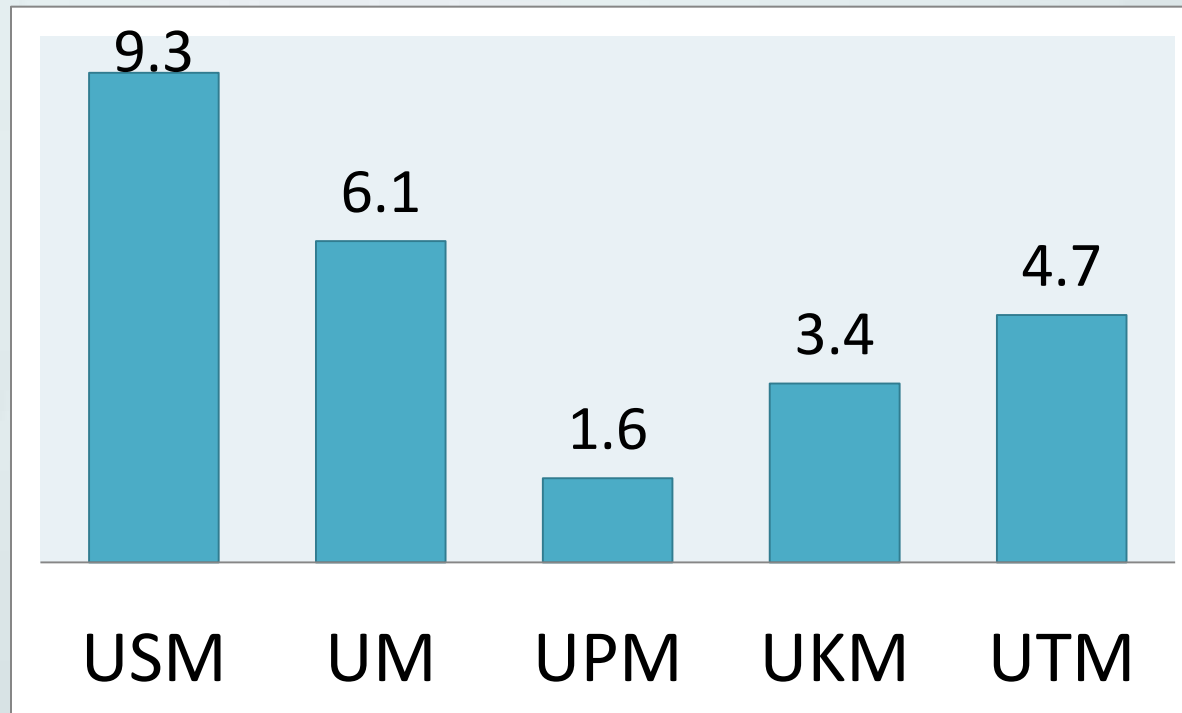
Citation per paper based on Scopus

USM a Global University

www.usm.my

Advanced Research Projects

1. Green Technology
2. Nano Technology
3. Green Building
4. GaN on GaN
5. Solar Cell
6. TIBI
7. Composite Material
8. ADAPT

9. Cerebral Palsy
10. Bioplastic
11. Advanced Materials
12. Crime
13. Mangrove Conversation
14. Urban Storm Water Management
15. Drug Addiction
16. Aging Science

Sains@USM
Research Campus Development Model

- Entrepreneurship & Innovation Acculturation
- Coaching & Mentoring Entrepreneurs

Research, Academic & Service Centers
- R&D Funding
- R&D Facilities
- Expertise
- Services

*Collaboration & Partnership
- Special Projects (R&D and Talent
- Partnering & Matching
- Industry Led Programs`

USM a Global University

Administrative Transformation

- Functional audit through job analysis & job description

- Human Resource Management (HRM) & Human Resource Development (HRD)

Restructuring Administrative Structure of PTJ

Consolidation and restructuring of common administrative functions of Hospital USM and Health Campus

Reduction of management of PTJs including the post of deputy deans and some programme chairmen

Merger of Desasiswa

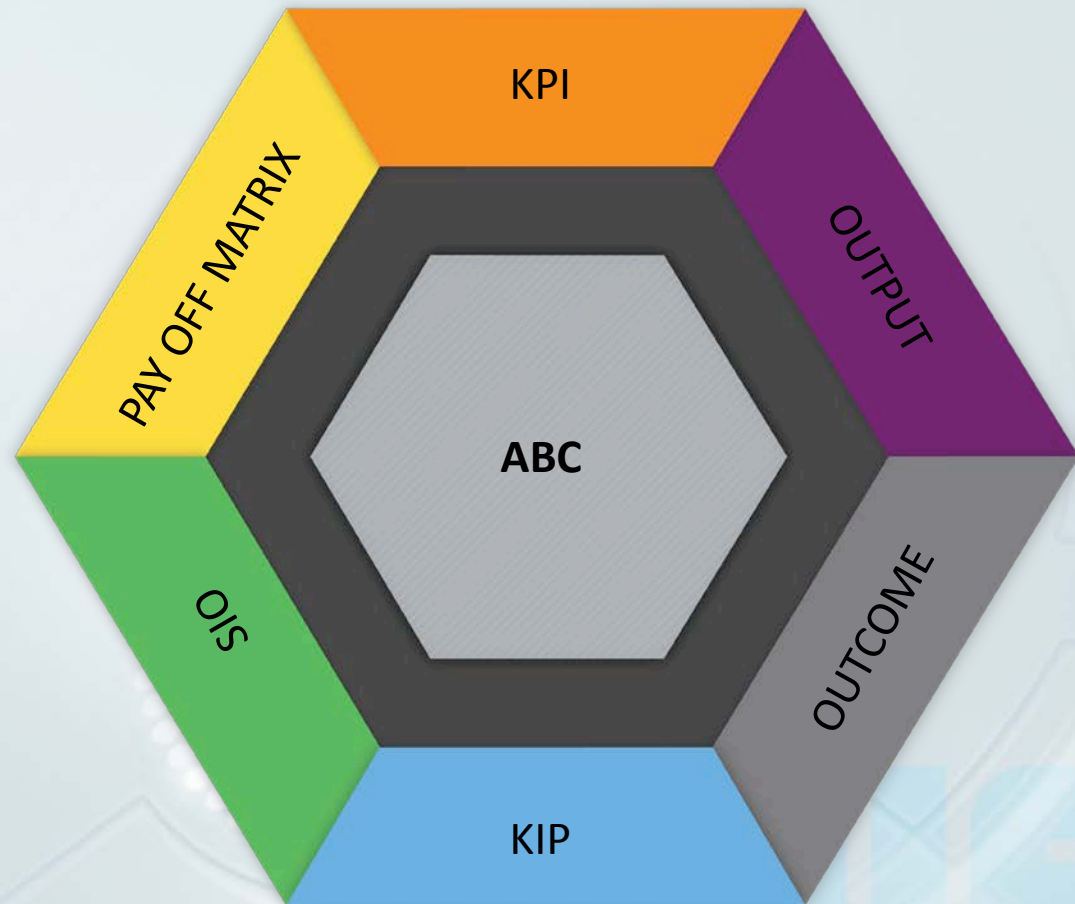The rebranding of CRI to NEXUS

Managing USM Performance

A Alignment / Penjajaran)

B (Business Orientation/ Berientasikan Perniagaan

C Competency / Kompetensi

KPI

OUTPUT

PAY OFF MATRIX

ABC

OIS

OUTCOME

KIP

PAY-OFF MATRIX

K F A

QW	Quick Win	63
TW	Time Waster	2
BO	Business Opportunities	19
SE	Special Effort	30

Output or Outcome Based Programmes

Graduate Employability

Graduate on Time

International Students

Income Generation

Research, Publication and MyRA

KTP and CE

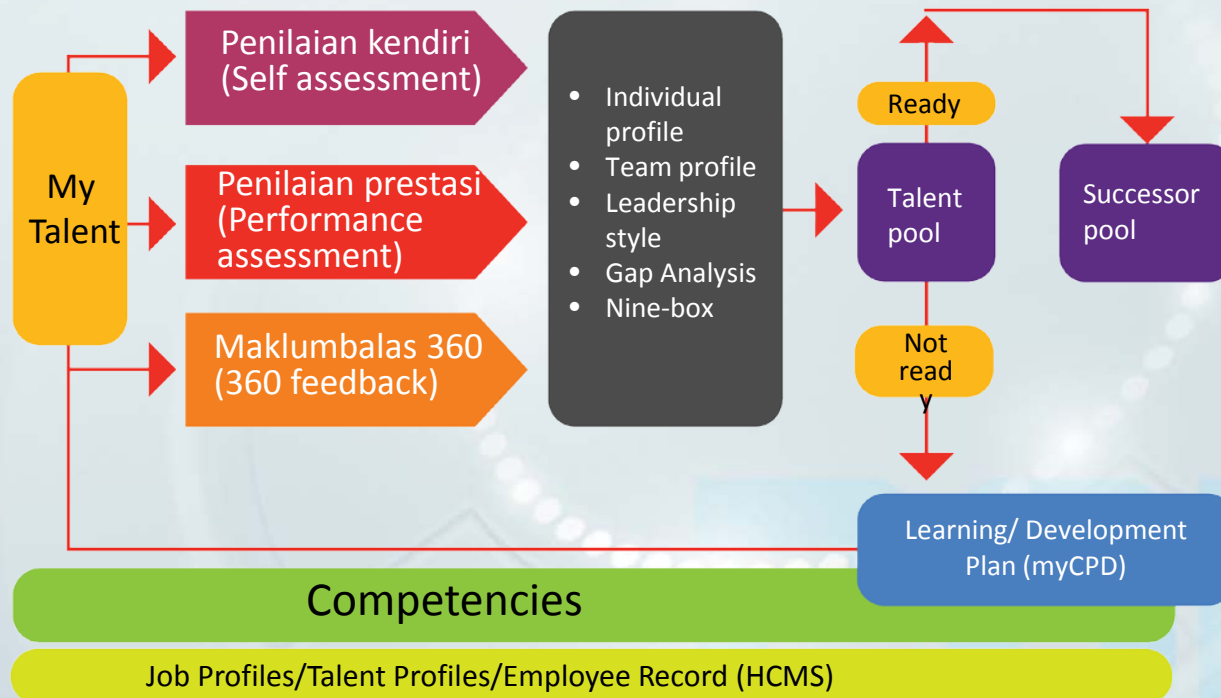Industry Based Research

Subject Ranking

Productivity. Cost/Graduate or Student

MYTALENT

Managing the Performance of USM

**SUCCESSION PLAN OUTLINE UNIVERSITI SAINS MALAYSIA**

My Talent

- Penilaian kendiri (Self assessment)
- Penilaian prestasi (Performance assessment)
- Maklumbalas 360 (360 feedback)

- Individual profile
- Team profile
- Leadership style
- Gap Analysis
- Nine-box

Ready

Talent pool

Successor pool

Not ready

Learning/ Development Plan (myCPD)

Competencies

Job Profiles/Talent Profiles/Employee Record (HCMS)

TeRamPiL

Te	Teachers / Educators
Ram	Researchers (Research in Academic & Management)
Pi	Practitioners
L	Leaders

OUTCOME

TeRamPiL **USM TALENT DEVELOPMENT**

A	Strengthening of soft skills governance and 9 APEX Thrust practices in University
B	Strengthening of staff competency
C	Strengthening of professionalism
D	Platform for assessment and promotion process
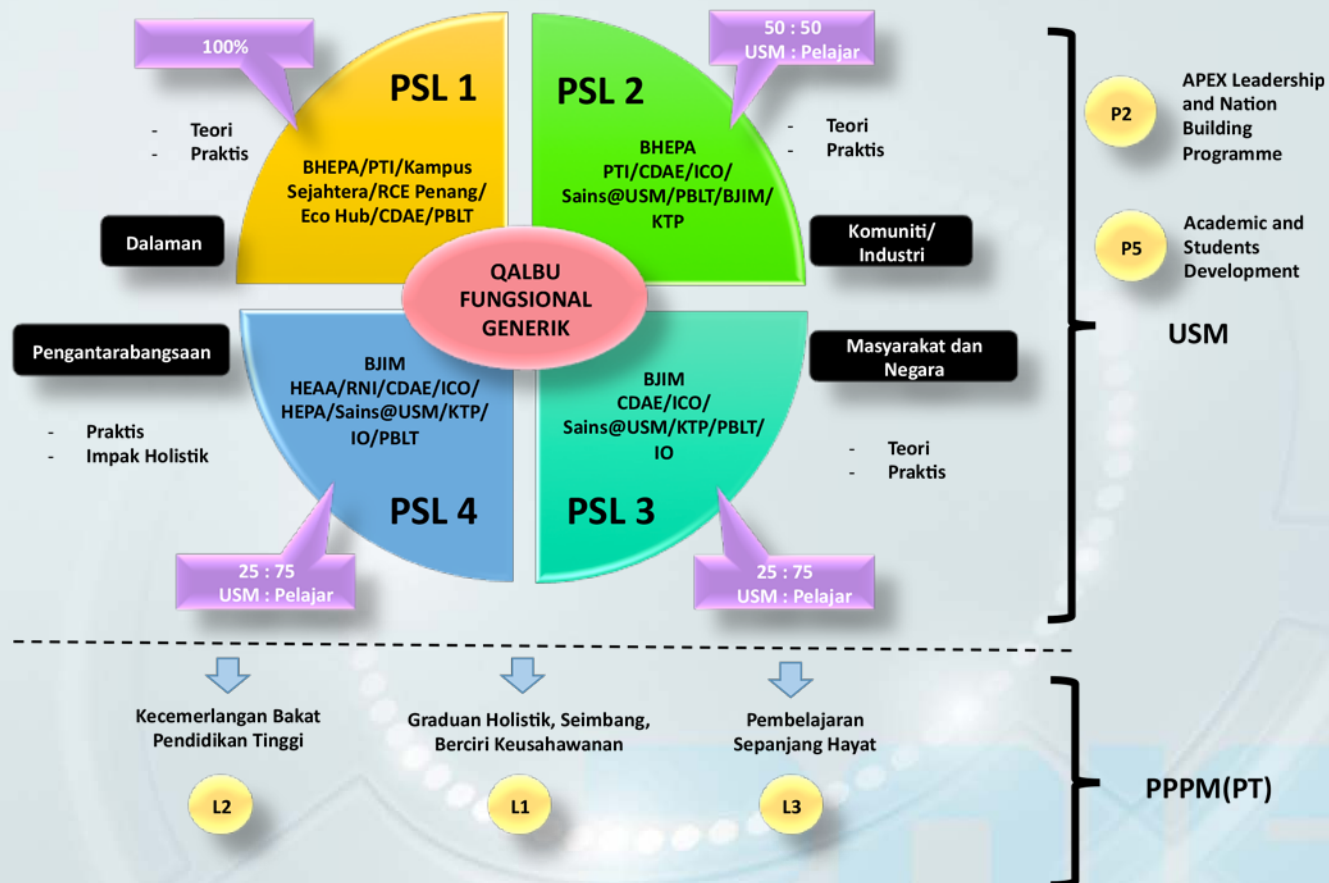
USM a Global University

USAINS Income Generation

100% cost recovery

Identify and explore income generation through win-win collaboration with PTJ

Exploring education business via optimisation of USM's asset

Enhance and maximise income generation program through PTJs and University

YAYASAN USM

Self generation income

Expected to generate additional income to ensure success implementation through philanthropist and alumni effort

Student Aid Program for less fortunate with collaboration Student Council and HEPA.

2016 FOCUS

Pemindahan Ilmu

01 Pusat setempat pengurusan perpindahan ilmu

02 Jaringan Global meliputi
- Asia-Pacific University-Community Engagement Network (APUCEN)
- South East Asian Sustainability Network (SEASN)
- Global Higher Education Network (GHEN)
- Regional Sejahtera Education for Sustainable Development Network (RSEN)
- Asian Local Knowledge Network (ALKN)

Pemindahan Ilmu

03 **Pusat-pusat atau Program Perpindahan atau Pertukaran Ilmu seperti**
- Steinbeis Transfer Centre Network;
- Kesukarelawanan dan Libatsama Komuniti;
- Program Pemindahan Ilmu;
- Pusat Inovasi Komuniti (Community Innovation Centre – CIC);
- *Innovation4Community*;
- *Industry Community Network Information System* (ICN-IS); dan
- Program Libatsama Komuniti;
- UCTC@USM

04 **Pusat atau Kluster Keilmuan**
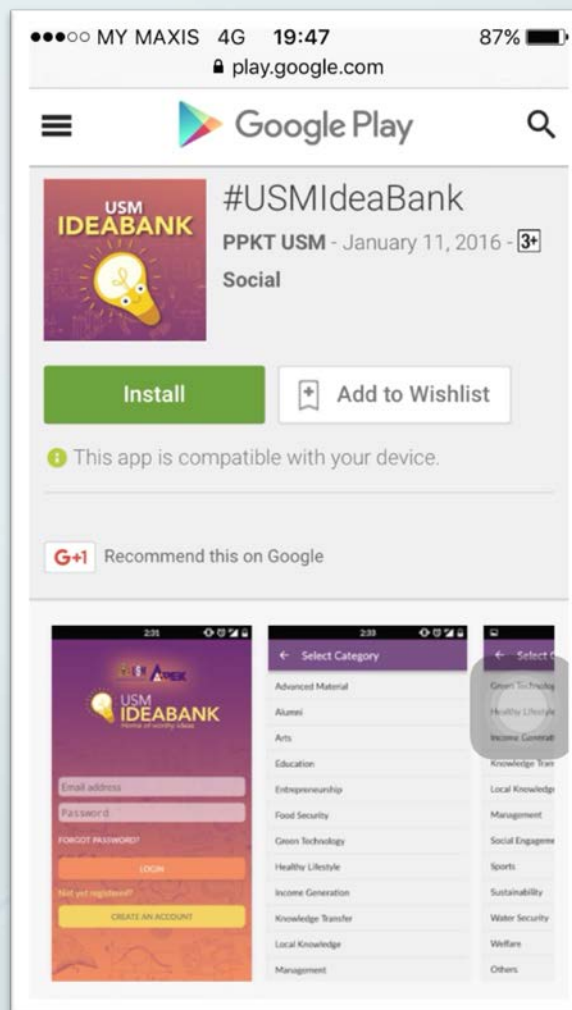- Repositori Kearifan Tempatan;
- Kumpulan Kearifan Tempatan;

05 **Pusat Kolobrasi Antarabangsa**
- Nagoaka University Collaboration
- Toyohashi Universiti Centre
- Kyoto Foreign Studies University Collaboration Centre

#USMIdeaBank

USM-STEINBEIS TRANSFER CENTRE NETWORK (USM-STCN)
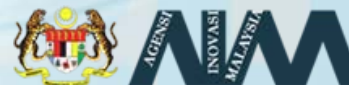
Academician/ Researcher

Industries

USM-STCN

Catalyst for Technology Transfer between University & Industries

78 Knowledge Transfer Network

Steinbeis Malaysia Foundation

Creating Wealth Through Innovation

TRANSDISCIPLINARY FLAGSHIP PROGRAMMES

Heritage Sciences Programmes

Bachelor of Science in Heritage Science (Honors)
- Global Archaeological Research Centre, School of Humanities, School of Humanities, School of Social Sciences, School of Housing, Building and Planning, School of Arts, School of Biology, School of Technology Industry

- Phase
  - Phase I : Minor Package Offered
  - Phase II : Bachelor of Science in Heritage Science Offered
  - Phase III : Establishment of School of Heritage Sciences

Degree Programmes with UPSI

- Master of Cognitive Neurosciences (Approved)
- Degree USM-UPSI (Approved)
- Master of Psychology (Clinical)
- Doctor of Psychology (Clinical Psychology)
- Doctor of Psychology (Clinical Neuropsychology)

USM a Global University

Flagship programme with multidisciplinary approaches

1. **E-LEARNING**
   - Improve quality of P&P
   - Simplify the process of P&P
   - Suitable for current environment and learning style
   - Cost saving

2. **BLENDED LEARNING**

   Blended learning is a learning that incorporates the use of technology (online learning) in face-to-face teaching.

4. **OPEN COURSEWARE**
5. **MASSIVE OPEN ONLINE COURSE**

USM a Global University

USM Engagement Plan

External Engagement

USM Engagement Plan

Community Engagement

Industry Engagement

Research Engagement

Academic Engagement

Collaboration Engagement

Staff Engagement

Student Engagement

Internal Engagement

USM a Global University

OFFSHORE PROGRAMME

- PPPJJ BSc (Hons) in Biology, Physics and Mathematics in North Malaysia & South Thailand
- Training and Consultation Programme with PIPPA
- Technical & TVET Programme
- Post Graduate Programme
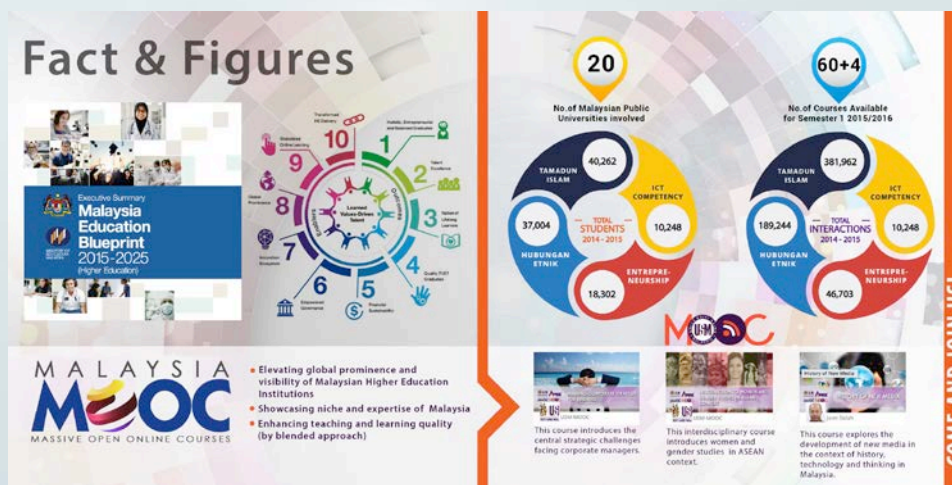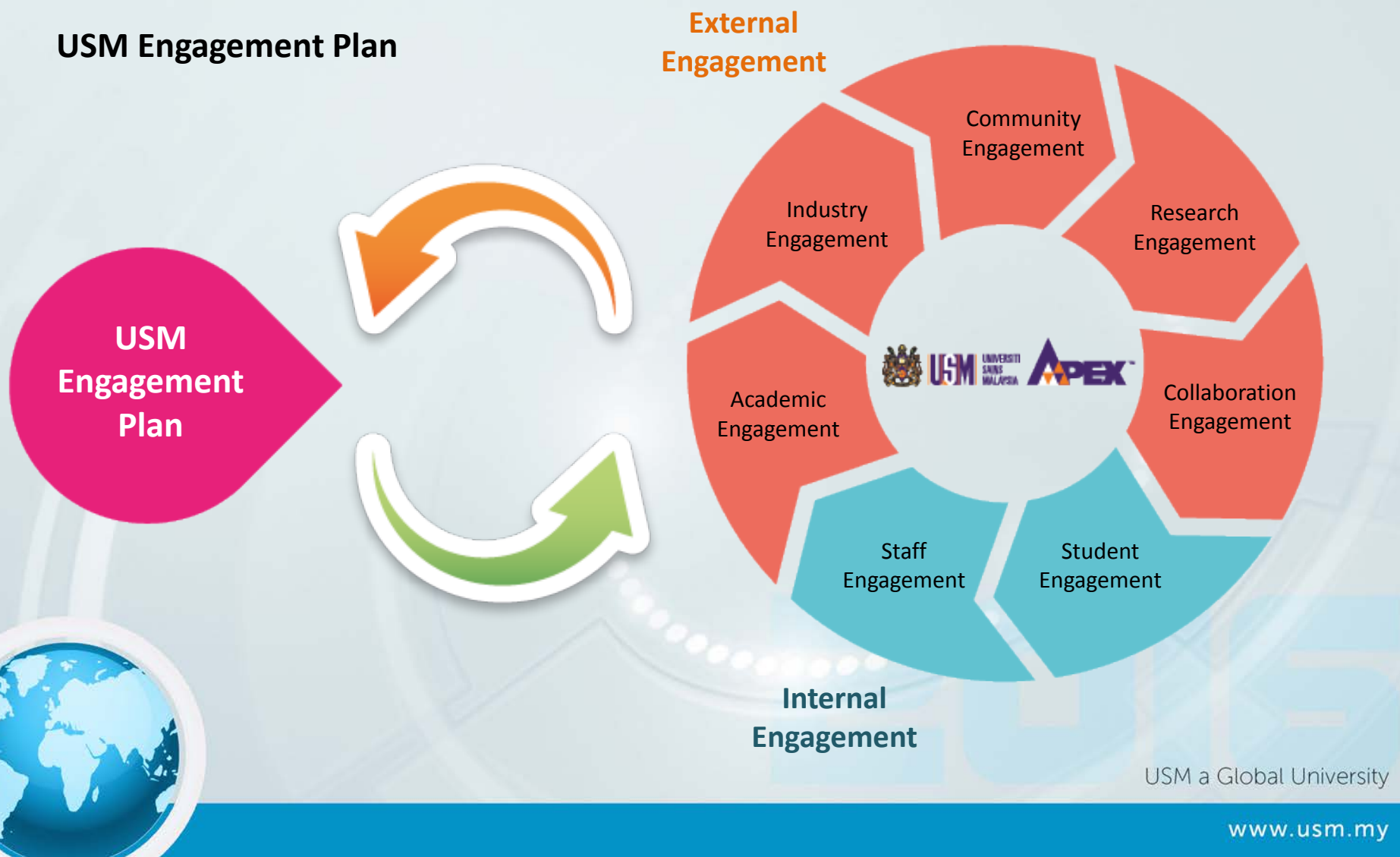
SAINS@KEDAH Collaborative Programme with NCIA and Kedah State Government

KORIDOR UTARA MALAYSIA

Strengthen Human Capacity in Science & Technology

Mobilize technology development at Kedah

- Kedah Science Park
- Kedah Rubber City
- Community Innovation Centre Programme

SAINS@KEDAH KUIN Campus at Alor Setar

USM a Global University

Creative Design House

School of Communication

PTPM

USM MEDIA CENTRE

Identified PTJ

MPRC

USM MEDIA CENTRE
(Niche)

Business Plan

Income Generation

Summary

RESEARCH

TALENT

Staff

Students

Global Research

National Development

Value

INSTITUTIONAL EXELLENCE

Finance

Sustainability

Institutional

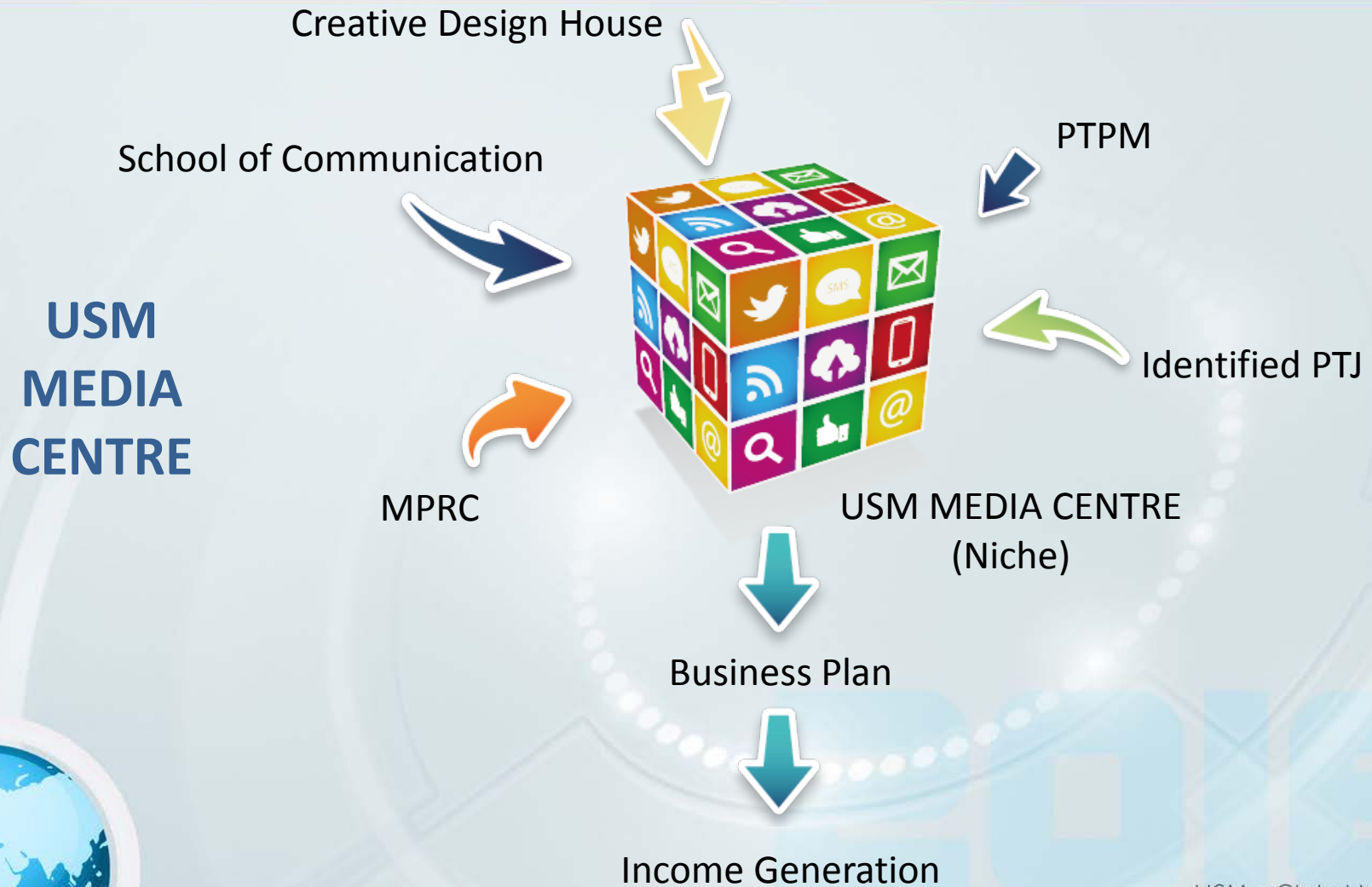**High Impact Citation** (31.4 citation per staff) 10% of Academic Staff with 500 citations or more

World Class RIU 300 3 subjects in Top 50 3 fields in Top 100

National referral and repository centre for 6 identified NKRA

85% Employability 35% International Employment 7.5% Entrepreneurs

28 citation per staff 8.5% of Academic Staff with 500 citations or more

30% Operational Independence

84% Employability 30% IE 6.5% Entrepreneurs

25 citation per staff 7% of Academic Staff with 500 citations or more

WCRIU 400 3 subjects in Top 50 2 fields in Top 100

Rukun Nilai USM

23.1% Operational Independence

Renowned In WEHAB + 3

83% Employability 25% IE 6% Entrepreneurs

22 citation per staff 6% of Academic Staff with 500 citations or more

18.1% Operational Independence

Empowerment to PTJ Autonomy to branch Campus

82% Employability 24% IE 5.5% Entrepreneurs

14.6% Operational Independence

Empowerment to PTJ

81% Employability 18% IE 5% Entrepreneurs

18.5 citation per staff 5% of Academic Staff with 500 citations or more

WCRIU 500 2 subjects in Top 50 2 fields in Top 100

TeRamPiL

11.71% OI

Institute of Environmental Science

KFA

Year

2016 | 2017 | 2018 | 2019 | 2020

TRANSFORMATION MAP USM APEX 2020

USM a Global University

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TRANSFORMATION
MAP
USM APEX
2020

RESEARCH

TALENT

Staff

Students

Global Research

National Development

Value

INSTITUTIONAL EXELLENCE

Finance

Sustainability

Institutional

85% Employability
35% International
Employment
7.5% Entrepreneurs

High Impact Citation
(31.4 citation per staff)
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28 citation per
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Renowned in
WEHAB + 3

81%
Employ
ability
18% IE
5%
Entrepr
eneurs

18.5
citation
per staff
5% of
Academi
c Staff
with 500
citations
or more

WCRIU
500
2 subjects
in Top 50
2 fields in
Top 100

TeRamPiL

11.71% OI

Empowerment
to PTJ

Empowerment to PTJ
Autonomy to branch
Campus

KFA

Year

2016

2019

2020

USM a Global University

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بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ

"…. Bekerjalah (beramalah) kamu, maka Allah dan RasulNya serta orang-orang mukmin akan melihat pekerjaanmu itu, dan kamu akan dikembalikan kepada (Allah) Yang Mengetahui akan yang ghaib dan yang nyata, lalu diberitakanNya kepada kamu apa yang telah kamu kerjakan"

(QS at-Tawbah /9: 105).

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

…Dan tolong-menolonglah kamu dalam (mengerjakan) kebajikan dan takwa, dan jangan tolong menolong dalam berbuat dosa dan pelanggaran…

(QS al-Maidah/ 5 : 2)

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

...Wahai Rabb kami, berilah kami kebaikan di dunia dan kebaikan di akhirat dan peliharalah kami dari azab neraka...

(QS AL-Baqarah/ 2: 201)

Terima Kasih
Thank You