

Perutusan Tahunan  
**Naib Canselor 2017**  
*Universiti Sains Malaysia*

# MENGATASI BERSAMA KESAN TSUNAMI GLOBALISASI GAYA USM

*“Rising above the tsunami effect  
of globalization together... USM style”*

**Profesor Datuk Dr. Asma Ismail, FASc**

**14.2.2017  
8.30 Pagi**  
Dewan Tuanku  
Syed Putra  
Kampus Induk

**15.2.2017  
8.30 Pagi**  
Auditorium Kompleks  
Dewan Kuliah  
Kampus  
Kejuruteraan

**16.2.2017  
8.30 Pagi**  
Dewan Utama  
Kampus  
Kesihatan



# Alhamdulillah

# Today marks my 134<sup>th</sup> day as VC@USM







Profesor Dato' Dr. Ahmad Shukri Mustapa Kamal  
Academic and International

Profesor Dr. Abdul Rahman Mohamed  
Industry and Community Network

Profesor Dato' Dr. Muhamad Jantan  
Research and Innovation

Profesor Dato' Dr. Adnan Hussein  
Student Affairs and Alumni





**Tan Sri Hamzah  
Sendut**  
*The First Vice-  
Chancellor of USM*

**Tun Hamdan Sheikh  
Tahir**  
*The Second Vice-  
Chancellor*

**Tan Sri Musa  
Mohamad**  
*The Third Vice-  
Chancellor*

**Professor Dato' Dr  
Ishak Tambi Kechik**  
*The Fourth Vice-  
Chancellor*

**Professor Tan Sri  
Dzulkifli Abdul Razak**  
*The Fifth Vice-  
Chancellor*

**Profesor Dato'  
Dr.Omar Osman**  
*The Sixth Vice-  
Chancellor*



# Why I returned to USM?

**Qada' dan Qadar  
It is my destiny**





What do I want the university to be?

## Purpose-Driven University

**QUANTUM LEAP** USM to a new  
level by **DESIGN** and  
not by **CHANCE**

**....USM style**

Melonjakkan USM  
dengan rekacipta  
tersendiri dan tidak  
mengharap pada  
nasib



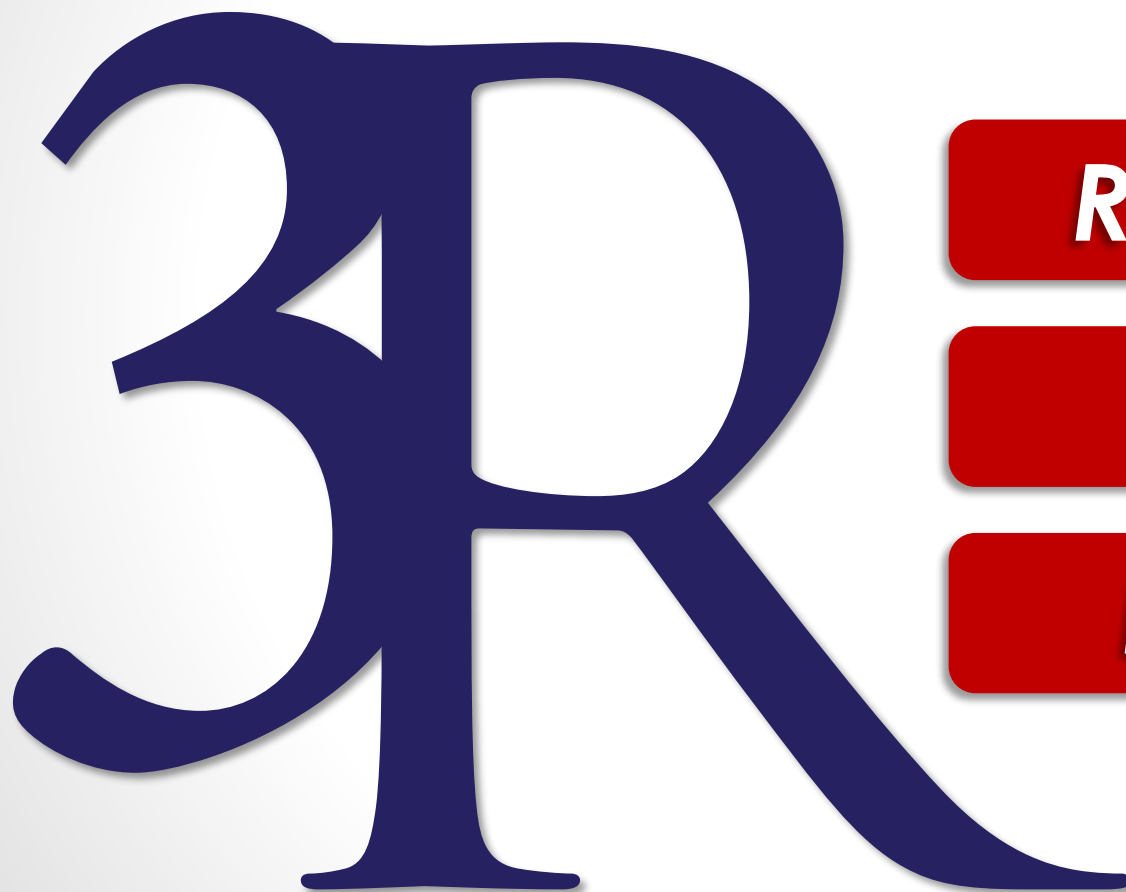
# Enhance and consolidate APEX University





# USM

## A global player



***RESPECTED***

***REFERRED***

***RELEVANT***



Perutusan Tahunan **2017** Universiti  
Naib Canselor Sains  
Malaysia

# *Challenges to higher education in the 21<sup>st</sup> century*

Kami Memimpin | *We Lead*  
[www.usm.my](http://www.usm.my)



# Higher education potential

- Education is a lucrative economic sector with a global annual fee income estimated at US\$30 billion, and this market has been growing at an annual rate of seven percent since 1990s (Economist, 2005).
- It is estimated that Asia will dominate the global demand for international higher education for the next two decades.
- The demand is forecasted to increase from 1.8 million in 2000 to 8.4 million international students in 2025.
- This is a potential that Malaysian Higher education should tap into.

# Challenges of the 21<sup>st</sup> Century

- The world is changing and the demands on higher education is changing.
- We have to learn to accept 21<sup>st</sup> century realities.
- Change is inevitable (perubahan yang tidak dapat dielakkan)

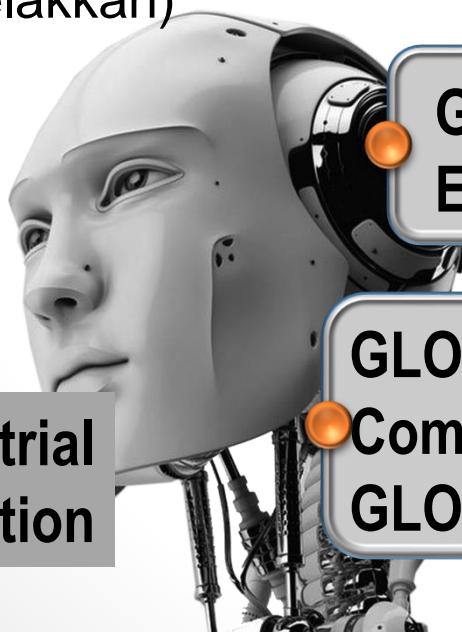
**Accelerating PACE of CHANGE  
due to DIGITAL age**

**ASEAN economic  
community**

**GLOBAL  
Economic crisis**

**GLOBAL  
Competition due to  
GLOBALIZATION**

**4<sup>th</sup> Industrial  
Revolution**





# Defining Globalization

- Globalization can be defined as the broad economic, technological and scientific trends that directly affect higher education.
- It allows the global flow of trade, knowledge, investment, capital, people and popular culture.
- In combination with information age, the world is a borderless village



# Globalization + Digital age + Economic crisis = Tsunami effect on higher education





# Impacts on higher education

- Massification of higher education (Menyebarkan Pendidikan Tinggi)
  - No of students needing higher education is more than the number of seats available in the university.
  - There is a need to change the delivery of the curriculum so that more can be educated without having to be in the classroom.
  - Need for blended learning.



# Impact of the challenges

- With the advent of the global economic crisis, students today need to work while obtaining a degree
- Education today need to move from structured to FLEXIBLE Education
  - Re-think Teaching
  - Re-design learning





# How do we go about it?

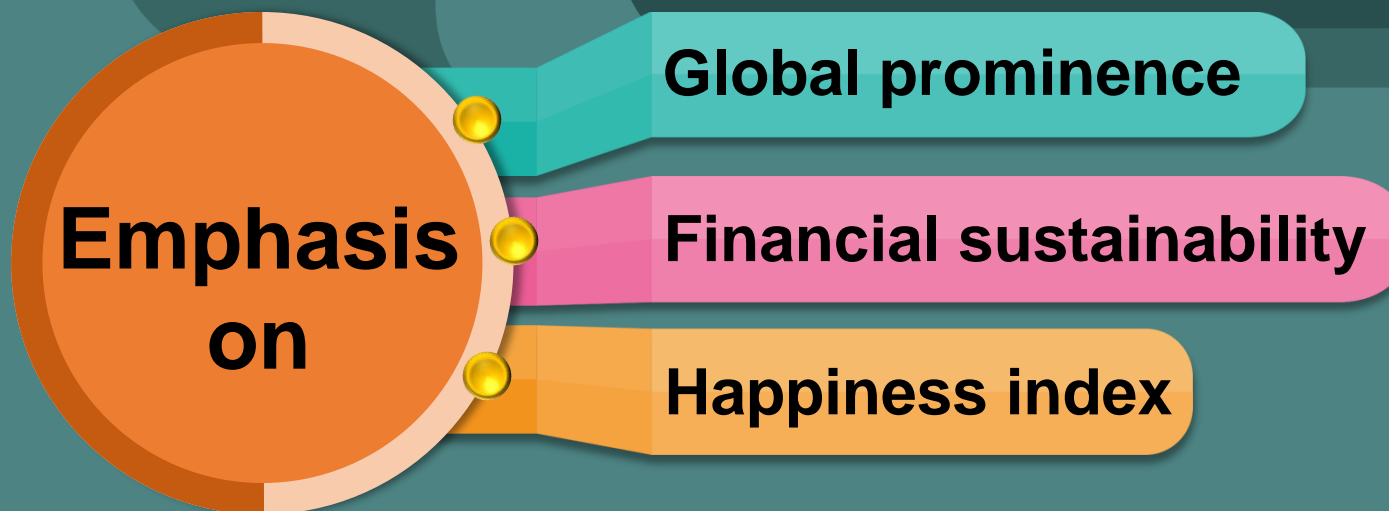
- Accept the need for CHANGE brought about by globalization. This will allow USM to shape the future of higher education
- As we embark on our journey to evolve for tomorrow, we need to focus on what we can UNIQUELY contribute to our stakeholders.
- We need the feedback from our stakeholders to determine how we need to move forward and formulate our response.
- Its important that we know what students are thinking, what the community is thinking, what the nation is thinking, and what our peers and strategic partners think about us.
- The journey ahead will require that we learn from the past, in order to evolve today and create new opportunities tomorrow.



# Clarity of purpose

- As we strive forward we need to set high ambitions. If we think small, we get modest results. If we think big, you get big results... most of the time.
- This means there is a need for **clarity of purpose** and **sense of mission** that will allow us to work together to **strive for the impossible and deliver it**.
- The tsunami effects of globalization on higher education is real and it is here to stay. Together we will deliver the impossible.

Let us rise above the tsunami  
effect of globalization together...  
**USM style**







Perutusan Tahunan **2017** Universiti  
Naib Canselor Sains Malaysia

# *Global Prominence*

Kami Memimpin | *We Lead*  
**www.usm.my**

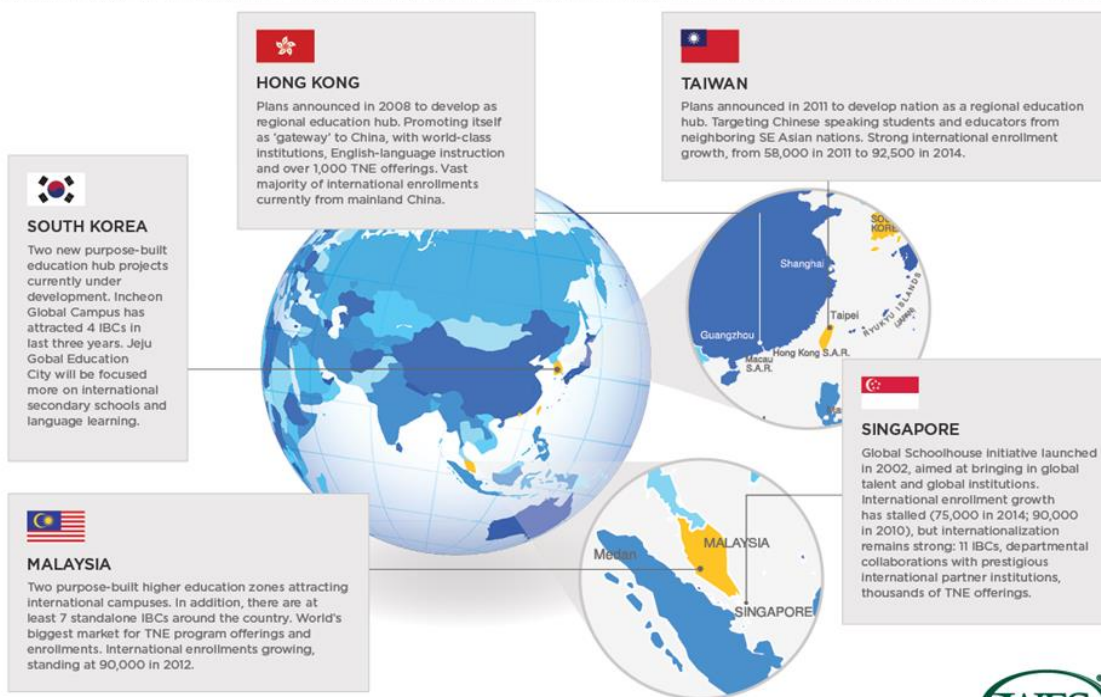
## Global prominence via RDCL

- Let me begin with global prominence via RDCI
- USM is a Research University. As a research-intensive university we should produce new knowledge and this knowledge should be disseminated to the students and shared with community and industry to create wealth for the country.
- As a research university we should set the trend of technology and change the academic content of our curriculum with the latest research findings.
- As an APEX university we should use the knowledge to transform the economic well being of the bottom billion
- We cannot run away from our responsibility as a research university and our apex agenda.



## Malaysia as the Regional hub for higher education

# INTERNATIONAL EDUCATION HUBS IN ASIA



IBC = International Branch Campus  
TNE = Transnational Education

World Education Services



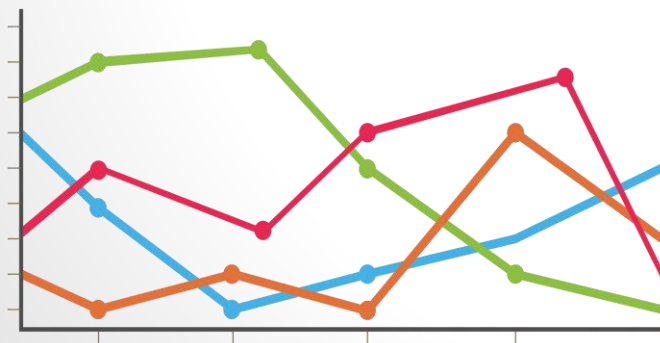
## What's our attraction?

1. World's biggest market for transnational education
2. Anchor Universities (individual universities in the rankings);
3. Quality education system in the country yet affordable



# Addressing the ranking game

- Whether we like it or not, to be an international attraction for foreign students to come to Malaysia, we cannot avoid the ranking game.
- Ensure the ranking indicators that we respond to is aligned with our fundamentals and we do not go overboard with the indicators that do not align with our fundamentals.
- What is important is that we must acknowledge that RDCI will make or break a research university.
- I keep reminding myself that failure of leadership is when we see a downward pattern and we did not do anything to address it.
















**USM** UNIVERSITI  
SAINS  
MALAYSIA



## Pencapaian Universiti








Updated: 19/12/2016  
QS Official Website

		
Overall Rating	Search for universities...	
★★★★★	Sunway University	
★★★★★	Taylor's University	
★★★★★	Universiti Malaya (UM) 	
★★★★★	Universiti Malaysia Perlis	
★★★★★	Universiti Sultan Zainal Abidin	
★★★★★	Universiti Teknologi MARA - UiTM	
★★★★★	Universiti Teknologi Petronas (Petronas) 	
★★★★★	Universiti Tun Hussein Onn Malaysia (UTHM)	
★★★★★	Universiti Sains Malaysia 	

## Rising Stars of the Higher Education World

Top 50 universities under 50 years old



UNIVERSITY	RANK
 <p>UNIVERSITI PUTRA MALAYSIA</p>	17
 <p>UNIVERSITI TEKNOLOGI MALAYSIA</p>	25
 <p>UNIVERSITI KEBANGSAAN MALAYSIA National University of Malaysia</p>	26
  <p>UNIVERSITI SAINS MALAYSIA</p>	33









# by FACULTY RANKINGS









Faculty excellence among the **Top 100** in the world

## SOCIAL SCIENCES & MANAGEMENT

UNIVERSITY	2014	2015
 UNIVERSITY OF MALAYA	123	69
 USM APEX	161	89
 UPM	232	152
 UNIVERSITI KEBANGSAAN MALAYSIA	196	161
 UTM	283	211
 UNIVERSITI TEKNOLOGI MARA	350	327

TOP  
100

## ENGINEERING & TECHNOLOGY

UNIVERSITY	2014	2015
 UNIVERSITY OF MALAYA	83	54
 USM APEX	122	85
 UTM	134	100
 UPM	161	133
 UNIVERSITI KEBANGSAAN MALAYSIA	186	149
 UNIVERSITI TEKNOLOGI PETRONAS	335	288




TOP  
100

## by FACULTY RANKINGS

*Did you know?*



For Life Sciences & Medicine, Universiti Sains Malaysia Academic Reputation is ranked at **53** in the world

1	Harvard University	100.0
17	University College London (UCL)	90.2
28	Monash University	87.1
48	Nanyang Technological University	82.7
48	Universiti Malaya (UM) 	82.7
51	University of Pennsylvania	82.6
53	Columbia University	82.0
53	<b>Universiti Sains Malaysia (USM) </b>	<b>82.0</b>
57	Universiti Kebangsaan Malaysia (UKM) 	81.7
67	University of Glasgow	80.6
77	Princeton University	79.4
90	Boston University	78.2
92	New York University	78.0
101	Korea University	76.9





# Achievements

## Subject / Faculty:

For the first time in history, three subjects offered by our public universities were ranked in the world's top 50.



### TOP 50

SUBJECT	2015	2016
 DEVELOPMENT STUDIES	32	30
 ENGINEERING (ELECTRICAL & ELECTRONIC)	51-100	37
  ENGINEERING (CHEMICAL)	51-100	46

But we used to have 4 in 2016. USM dropped in Environmental studies



## TOP 50 & TOP 100 IN THE WORLD



Development Studies - 30<sup>th</sup> \*TOP 50  
Engineering - Electrical & Electronic - 37<sup>th</sup> \*TOP 50

Architecture / Built Environment  
Computer Science & Information Systems  
Education  
Engineering - Chemical  
Engineering - Mechanical, Aeronautical & Manufacturing  
English Language & Literature  
Linguistics



Architecture / Built Environment  
Education  
Engineering - Chemical  
Social Policy & Administration



Architecture / Built Environment  
Engineering - Chemical  
Engineering - Electrical & Electronic



Engineering – Chemical – 46<sup>th</sup> \*TOP 50  
Architecture / Built Environment  
Computer Science & Information Systems  
Development Studies  
Education  
Engineering - Electrical & Electronic  
Engineering - Mechanical, Aeronautical & Manufacturing  
Environmental Sciences  
Pharmacy & Pharmacology



Agriculture & Forestry

9 subjects  
in top 100





# CONGRATULATIONS

**BEST MASTERS RANKING**  
**4000 BEST MASTERS &**  
**MBA's in 30 FIELDS OF**  
**STUDIES WORLDWIDE**



Source:

<http://eduniversal-ranking.com/business-school-university-ranking-in-malaysia.html>

 4 PALMES OF EXCELLENCE - TOP BUSINESS SCHOOL WITH SIGNIFICANT INTERNATIONAL INFLUENCE	RANK BY PALMES LEAGUE	DEAN'S RECOMMENDATION RATE 2016
UNIVERSITY OF MALAYA - FACULTY OF BUSINESS AND ACCOUNTANCY	1	140‰
 3 PALMES OF EXCELLENCE - EXCELLENT BUSINESS SCHOOL WITH REINFORCING INTERNATIONAL INFLUENCE	RANK BY PALMES LEAGUE	DEAN'S RECOMMENDATION RATE 2016
UNIVERSITI PUTRA MALAYSIA (UPM) - PUTRA BUSINESS SCHOOL	1	114‰
UNIVERSITI SAINS MALAYSIA (USM) - SCHOOL OF MANAGEMENT AND GRADUATE SCHOOL OF BUSINESS	2	70‰
UNIVERSITI TEKNOLOGI MALAYSIA INTERNATIONAL BUSINESS SCHOOL (IBS)	3	61‰



# Malaysia's Rising Stars Award 2015 -2016

## Lecturers & Research



7 out of  
14 from  
USM

### CONGRATULATIONS

# TOP 1% MOST GLOBALLY CITED RESEARCHERS

14 MALAYSIAN ACADEMICIANS

BY  
  
THOMSON  
REUTERS



# Outstanding Research ACHIEVEMENTS



32

**Top Research  
Scientist  
Malaysia by ASM  
(2010 – 2016)**



10

**Rising Star  
(2015 – 2016)**



3

**The Most Cited  
Researchers  
Shanghai  
Academic  
Ranking  
of World  
Universities  
(ARWU) -  
(2016)**



3

**The World's  
Most Influential  
Scientific Minds  
(2014 – 2015)**

**total  
48**



Data update : 8 December 2016

**Excellence in Research**

THOMSON REUTERS  
**MALAYSIA'S  
RISING STARS**



No new  
faces  
#muka2tuje

2014



Professor Dr. Abdul Latif Ahmad  
Chemical Engineering



Professor Dr. Saidur Rahman  
Engineering



Professor Dr. Ishak Hashim  
School of Mathematical Sciences  
Science & Technology



Professor Dr. Bassim H. Hameed  
Chemical Engineering



2015



Professor Dato' Ir. Dr. Wan Ramli  
Engineering



Professor Dr. Bassim H. Hameed  
Chemical Engineering



Professor Dr. Siti Kartom Kamarudin  
Engineering



THOMSON REUTERS

THE WORLD'S MOST  
INFLUENTIAL  
SCIENTIFIC MINDS



# 2016



**ACADEMIC RANKING OF WORLD UNIVERSITIES** SINCE 2003

## USM, UTM scholars among most cited

**MAJOR RECOGNITION:** Success attributed to dedicated groups, world-class facilities

**O.C. YEON**  
ocyeon@nkt.com.cn

FOUR academicians from two local universities have been listed among the Most Cited Researchers in the latest Shanghai Academic Ranking of World Universities 2016 by Subjects.

Representing various fields of engineering, three of these top researchers hail from Universiti Sains Malaysia (USM), while the fourth is from Universiti Teknologi Malaysia (UTM).

USM's most cited researchers are Professor Dr Bassim H. Hameed and Professor Dr Lee Keat Teong from the USM School of Chemical Engineering, and Professor Dr Hanafi Ismail from the USM School of Materials and Mineral Resources Engineering.

UTM's deputy Vice-Chancellor (Research and Innovation) Professor Dr Ahmad Fauzi Ismail was also listed as one of the Most Cited Researchers for Chemical Engineering.

Rassim was cited as being top in the field of Chemical Engineering and Environmental Science and Engineering. Hanafi is in the field of Chemical Engineering and Lee in the field of Energy Science and Engineering.

Rassim said he was both proud and honoured to have been recognised for his research work in Chemical Engineering and Environmental Science and Engineering by the Shanghai Jiao Tong Academic World University Rankings.

Before this, he was listed by Thomson Reuters as among the World's Most Influential Scientific Minds and also the Highly Cited Researcher for 2015 and 2014 in the field of Engineering.

"I wish to express my sincere appreciation to the Ministry of Higher Education (MOHE), Ministry of Science, Technology & Innovation (MOSTI) and USM for granting me funds to make my research possible," said Rasmis, who hails from Iraq.

"I also want to acknowledge the excellent works and contributions of my colleagues."

Fellows, postgraduate students, and members of the International Association of Agricultural Chemists (IAAC) & Adsorption Society (IAS) who show research interest in the field of adsorption.

# No

# No fac

ava:  
Eng:  
USM's  
and the  
there, U

"The young people are positive and positive in any situation, they see research as their core business."



Malaysia's most-cited research scholars (clockwise from top left) Professor Dr Bassim H. Homeed, Professor Dr Hanafi Ismail, Professor Dr Lee Keut Teong and Professor Dr Ahmad Fouzi Ismail.

to cooperate with others in their research, he said.



Professor Dr Phua

used as an immediate encouragement.

new

ces

...the development

achievement in the

**THE MOST CITED  
RESEARCHES SHANGHAI ACADEMIC  
RANKING OF WORLD UNIVERSITIES (ARWU)**

by Elsevier 2016



**Prof. Dr. Bassim H. Hameed**  
Chemical Engineering & Environmental Science



**Prof. Dr. Hanafi Ismail**  
Chemical Engineering



**Prof. Dr. Lee Keat Teong**  
Energy (Science & Engineering)

RESEARCHERS	SUBJECTS	INSTITUTION
Hameed, Bassim H	Chemical Eng	USM
	Environmental Sci & Eng	
Ismail, Hanafi	Chemical Eng	USM
Ismail, Ahmad Fauzi	Chemical Eng	UTM
Lee, Keat Teong	Energy Sci & Eng	USM

## No new faces



**Pockets of  
Excellence**  
**No new faces**  
**#muka2tujeagain**













 **Clarivate  
Analytics**  
**ON HIGHLY CITED  
RESEARCHERS 2016.**

**CONGRATULATIONS**



## Malaysian & International Universities Compared

### TOP 100

1		Massachusetts Institute of Technology (MIT)	
6		University of Oxford	
12		National University of Singapore (NUS)	
13		Nanyang Technological University (NTU)	
65		Monash University	
75		The University of Nottingham	

OUR AIM  
 By 2025:  
 2 universities in Top 100



### TOP 150

















133		Universiti Malaya	
135		Kyushu University	
140		Cardiff University	
157		University of Liverpool	
168		Newcastle University	
175		University of Reading	
189		King Fahd University of Petroleum & Minerals	
214		Georgetown University	
221		Université Paris-Sorbonne (Paris IV)	
228		Victoria University of Wellington	
249		National University of Ireland, Galway	
252		Chulalongkorn University	
252		RMIT University	

### TOP 300

270		Universiti Putra Malaysia	
276		Queensland University of Technology (QUT)	
288		University of South Australia	
288		Universiti Teknologi Malaysia	
291		University of Ottawa	
296		University of California, Berkeley	

Top 1%  
in the  
world

### 301-500

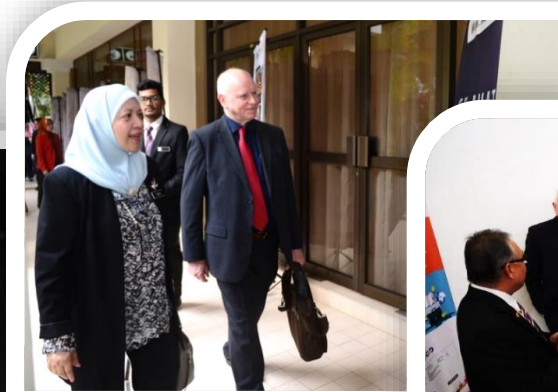
302		Universiti Kebangsaan Malaysia	
306		Curtin University	
313		Indian Institute of Technology Kharagpur (IIT-KGP)	
325		Universitas Indonesia	
327		Heriot Watt University	
330		Universiti Sains Malaysia	
363		George Washington University	
393		Qatar University	
401		Bandung Institute of Technology (ITB)	

We are the last among the RUs

We also do not show sustainability of cohorts



## Selected as **FINALIST** in MOHE Entrepreneurial Award 2016 (MEA2016) – Public University



# Heart to heart on RDCI at USM

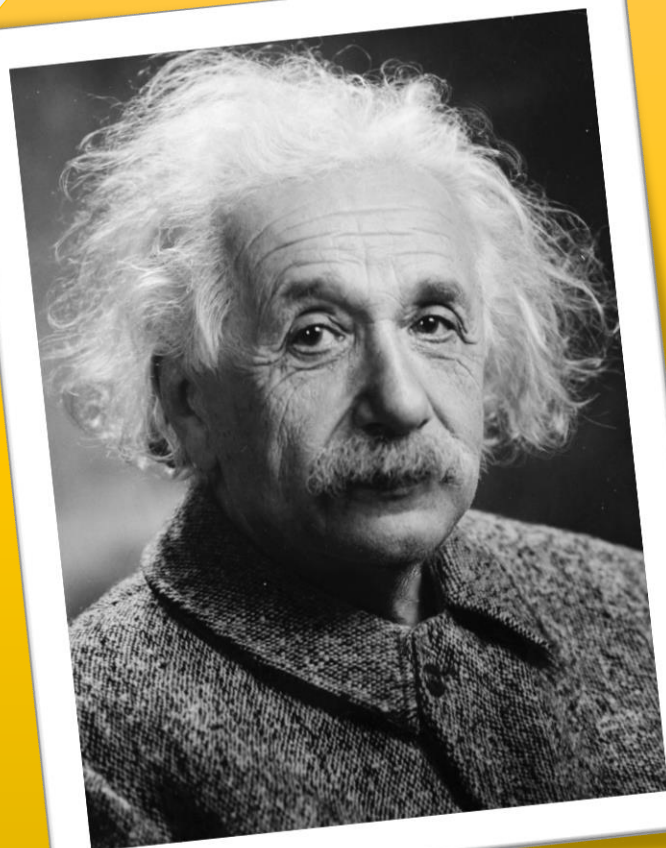
From nowhere we went into the finals at the MEA and was announced that we were close second to UPM. What made UPM win is that their commercialization policy is way ahead of us and they have many impactful products

I want to congratulate USMMers for trying our level best to win the hearts of the judges but what we have managed to show is POCKETS OF EXCELLENCE.

To me it is no longer about winning. The MEA award forced USM to look closely at our policies on being an entrepreneurial university, our commercialization policies and whether we can be a sustainable as a Research university



# Some of the things we do have got to change



**IT IS INSANE TO CONTINUE  
TO DO THE SAME THING  
OVER AND OVER AGAIN  
AND EXPECT TO GET  
DIFFERENT RESULTS**

Einstein



# MOHE'S R&D ROADMAP : Value Chain Pathway

Paradigm shift in  
HOW we approach  
the RDCI value  
chain

2010-2015  
Enhancing  
Performance

2007 -2009  
Laying the  
foundation

2016-2025  
Delivering  
Excellence

Talent  
Development

Research  
Prominence

Wealth  
Creation

Bridging the  
Grand  
Challenge

PEOPLE GROWTH



RESPECTED  
REFERRED  
RELEVANT

High Tech ↔ High Touch

Despite our RUs are in the top  
1%, OECD report on R&D still  
states that Malaysian R&D need  
to show impact

# Amanat YBM MOHE :

## 2017 is the The year of translational research

### New thinking in R&D&C&I @ USM



# New thinking in RDCl

The global economy in the information age is no longer about cheap labour

**Knowledge** is now the currency of the new economy.

With the information age, location is no longer the barrier.

**Ideas can now cross border easily** and thus collaboration and information sharing now becomes important

Tomorrow is no longer about being in control but about **collaborative network with sharing of information**

As the world become more connected and collaborative, we should now be motivated to co-learn and co-create

**Collaborative model is now the necessary platform to allow for technology assimilation.** With assimilation we will see a sustainable change in society

Hence if we want impactful translational research we need to move into the

**COLLABORATIVE MODEL APPROACH**

R&D


Business



Courtesy of  
ASM



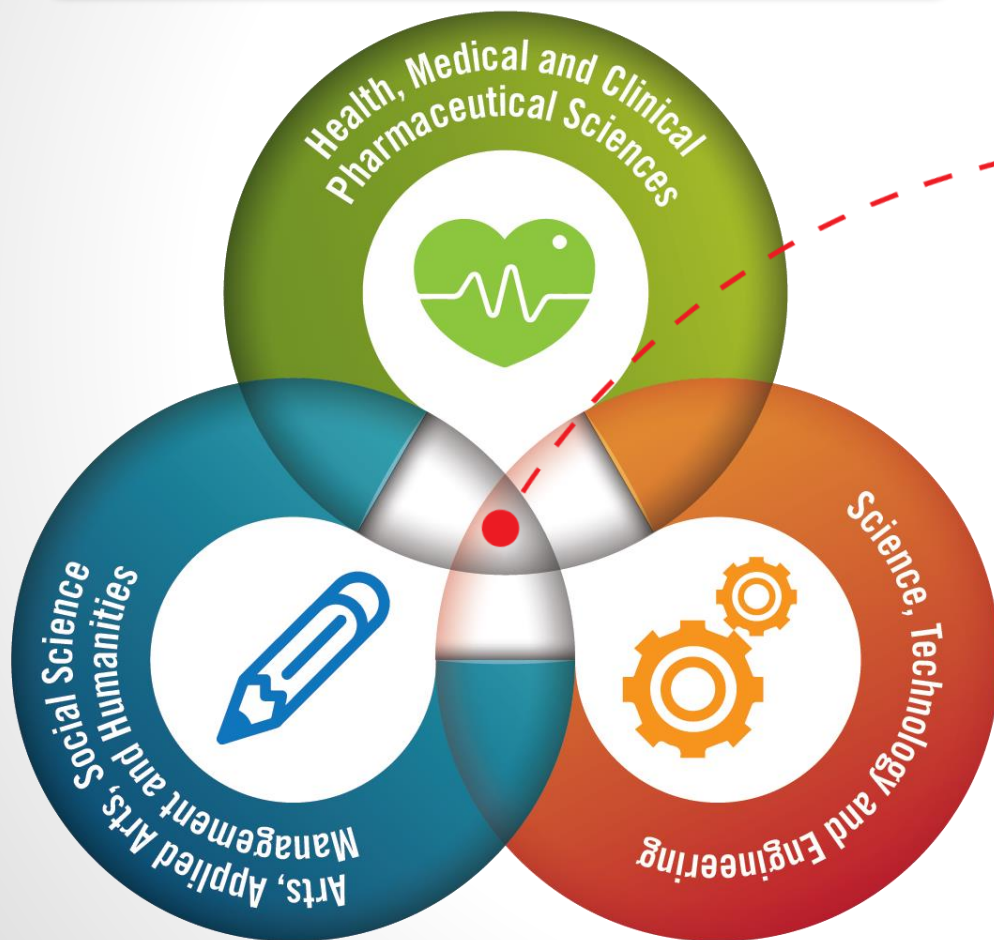
# USM's mantra for 2017



**Learn  
Un-Learn  
Re-Learn  
Co- Learn  
Co-Create**

# Synergizing Arts, Sciences and Technology to Action (total participation) at USM

**STEM to STEAM to STREAM**

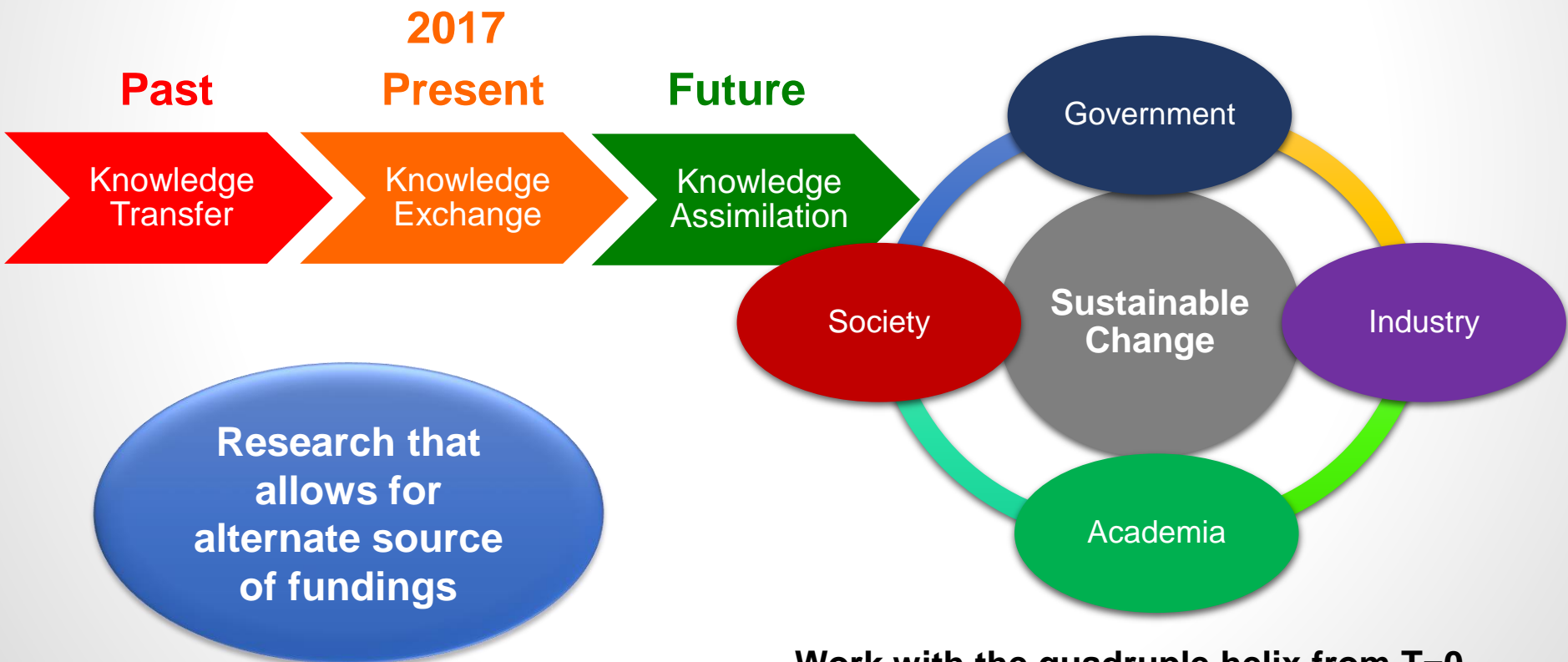


**SYNERGIZING**  
Arts, Sciences  
and Technology

To provide  
comprehensive  
understanding of the  
problems that we face  
today, but also offer a  
fresh alternative in  
solving them

**Celebrate differences  
and varieties**

## Collaborative Model Approach Assimilation of Knowledge & Diversification of Source of Research Funding





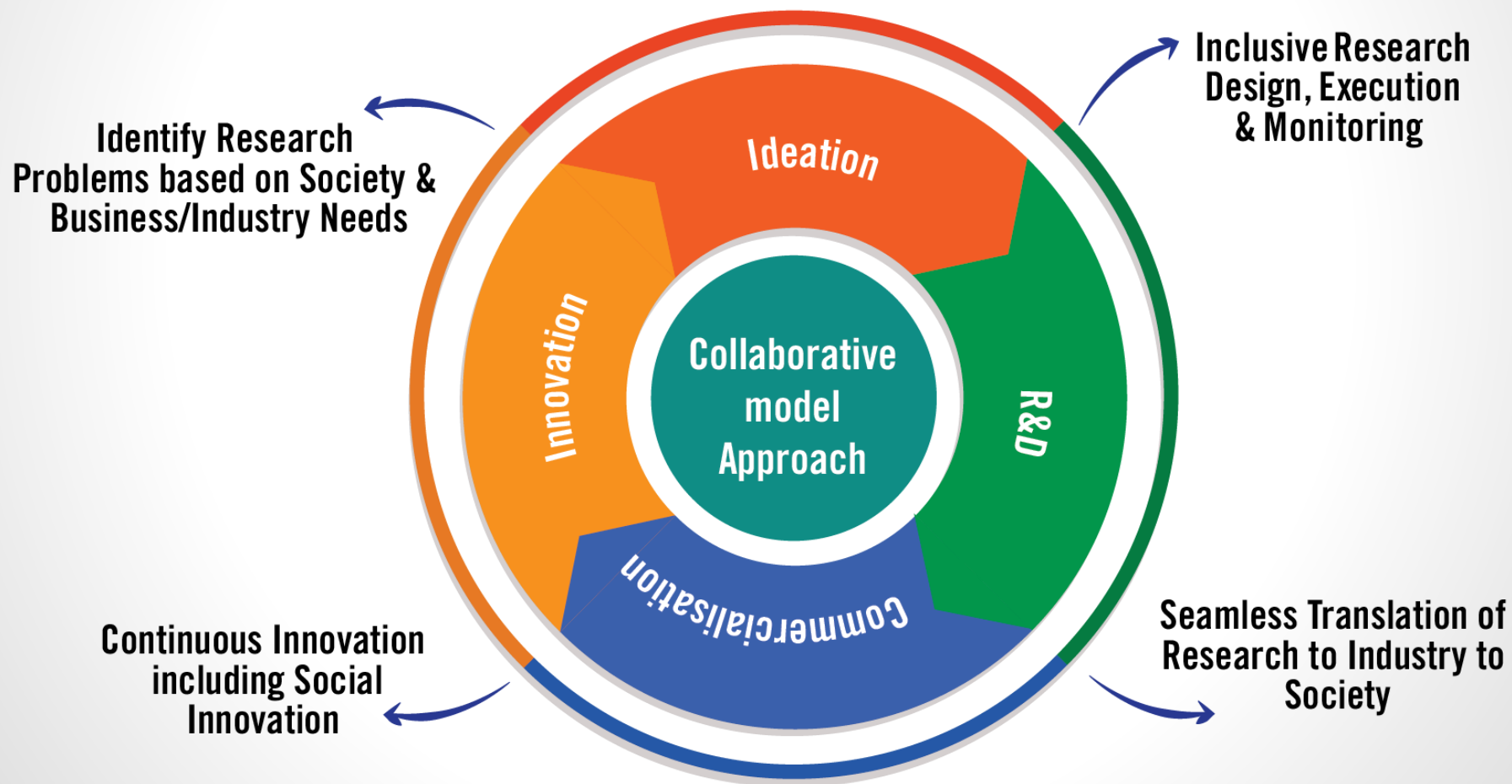
# Collaborative Model Approach

- University, Ministry, NGO, community are collaborators involved in the very beginning
- Designing of innovations are with the involvement of the industry
- Services to be provided are in collaboration with the service sector
- The R&D will be collaborative and multidisciplinary and not silo based. There will be convergence of technology (4<sup>th</sup> Industrial revolution) with high output for publications and IPR
- The center for collaborative approach can be demand-driven or values-driven. Choose research topics that can easily obtain grants via CSR from industry, endowment, waqaf as alternative to government grants.
- Providing local solutions to solve global problems via knowledge assimilation to create impact

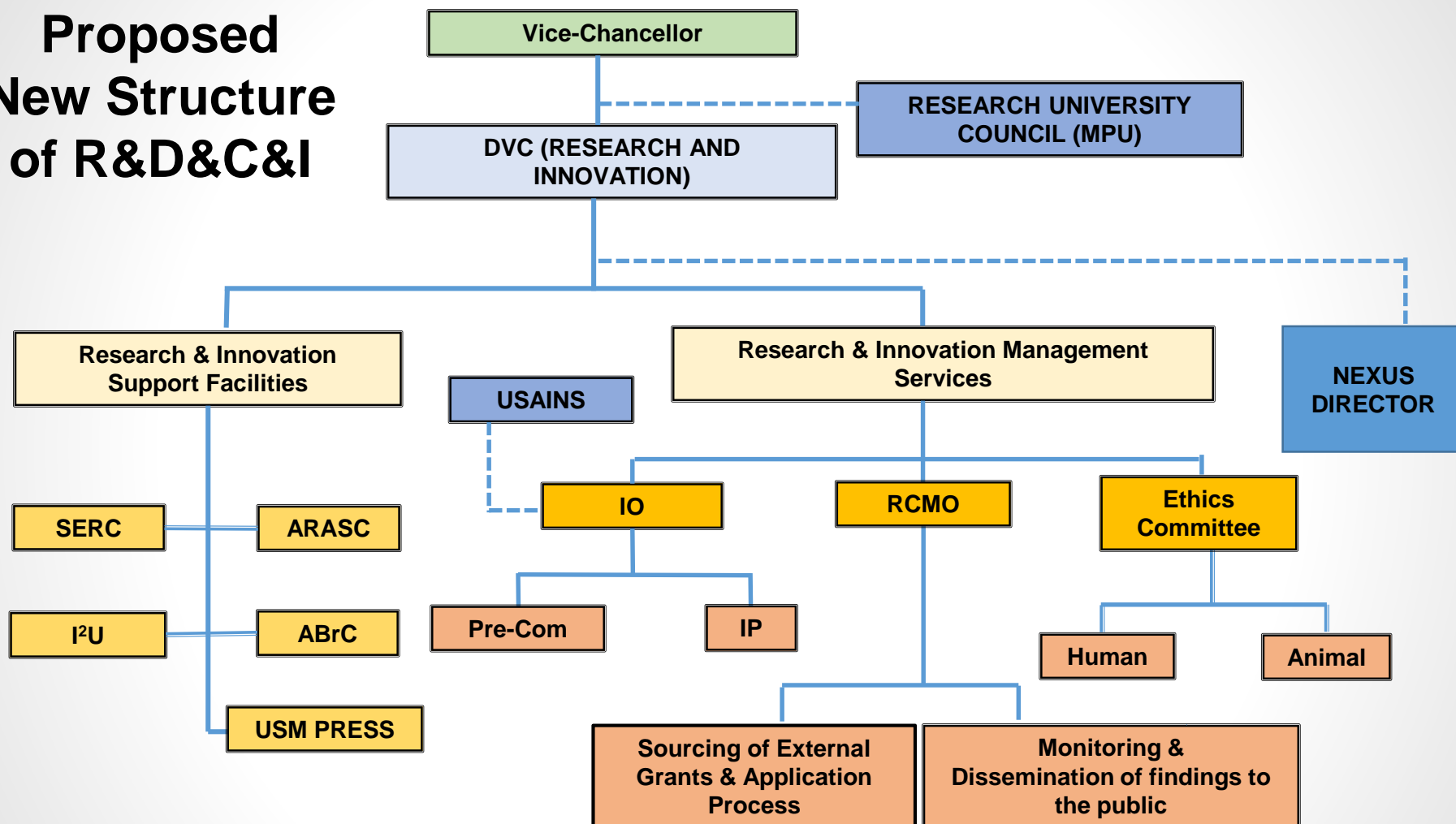


## Collaborative model:

Creation of sustainable RDCI ecosystem that assimilates the collective knowledge and resources of the quadruple helix at all stages of RDCI



# Proposed New Structure of R&D&C&I



ABrC – Analytical Biochemistry  
Research Centre  
ARASC – Animal Research and  
Service Centre



# NEXUS@USM

**N**urture good science and good attitude towards social wellbeing and wealth creation

**E**xchange ideas and expertise beyond borders

**U**niversality: comprehend diverse range of knowledge

**S**alient: driving USM towards world prominence

4 NEXUS DIRECTORS

**VICE- CHANCELLOR**

DVC (A&A)

DVC (R&I)

DVC (ICN)

DVC (HEPA)

Nexus Director  
(Science)

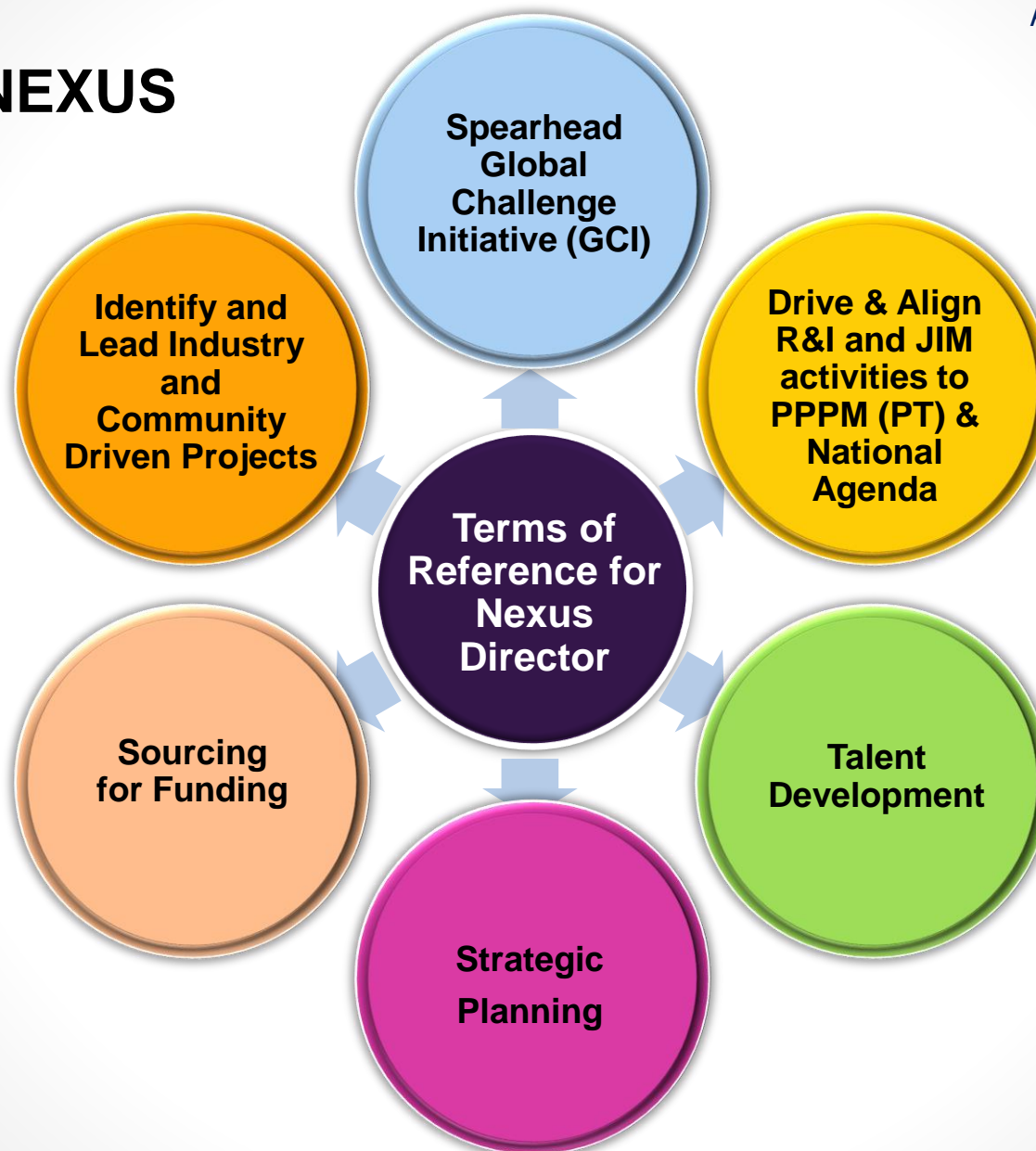
Nexus Director  
(Social  
Science &  
Humanities)

Nexus Director  
(Engineering )

Nexus Director  
(Medical &  
Health  
Sciences)

Joint Committee  
to be chaired by  
DVC (R&I) and  
DVC (JIM) on an  
alternate basis

# TOR for NEXUS Directors



# Global Challenge Initiative (GCI)



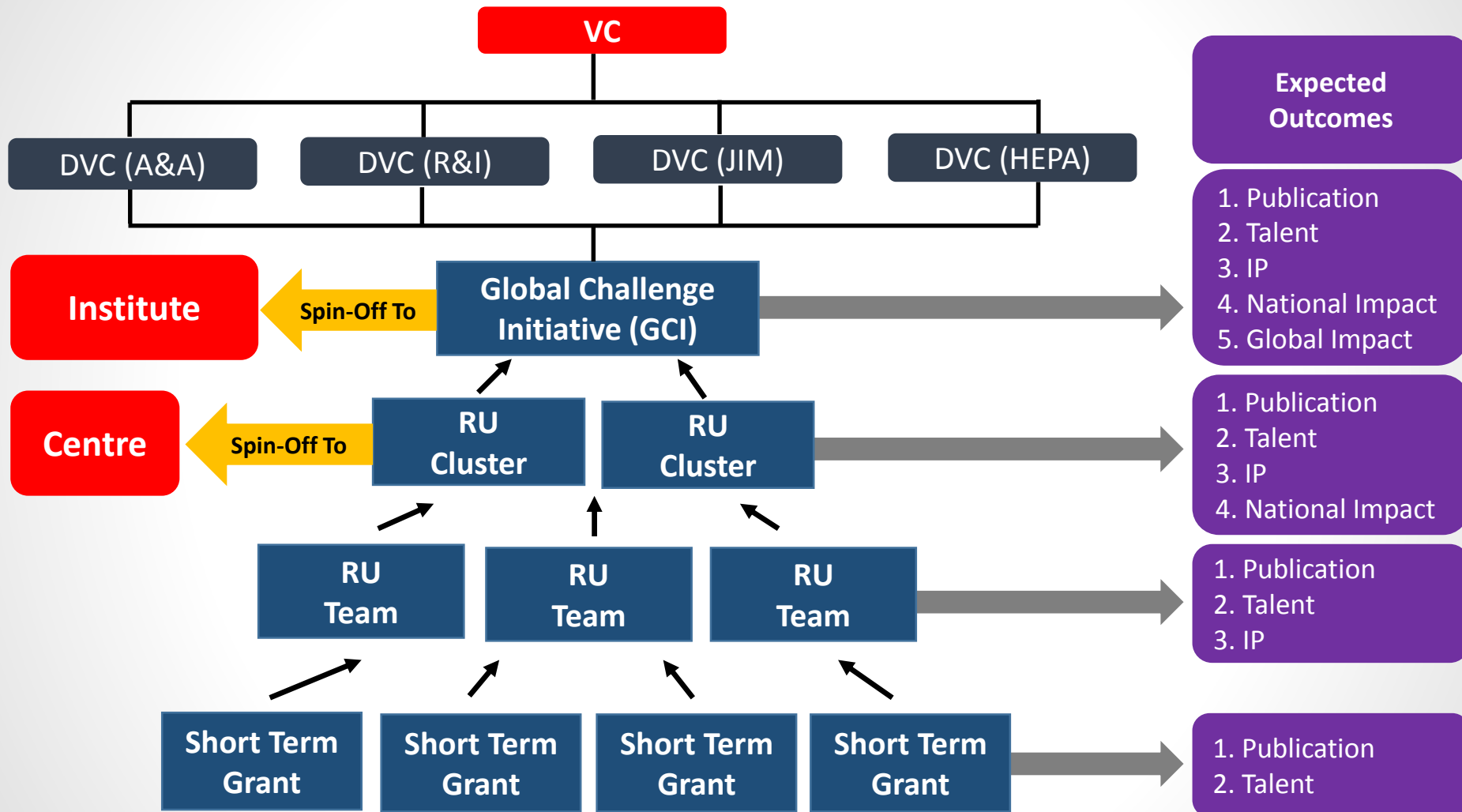
## Philosophy:

GCI is a concerted effort by the University to address issues and challenges of global & national socio-economic importance based on a collaborative model approach through knowledge exchange with community and/or industry up until assimilation. It is a multidisciplinary approach

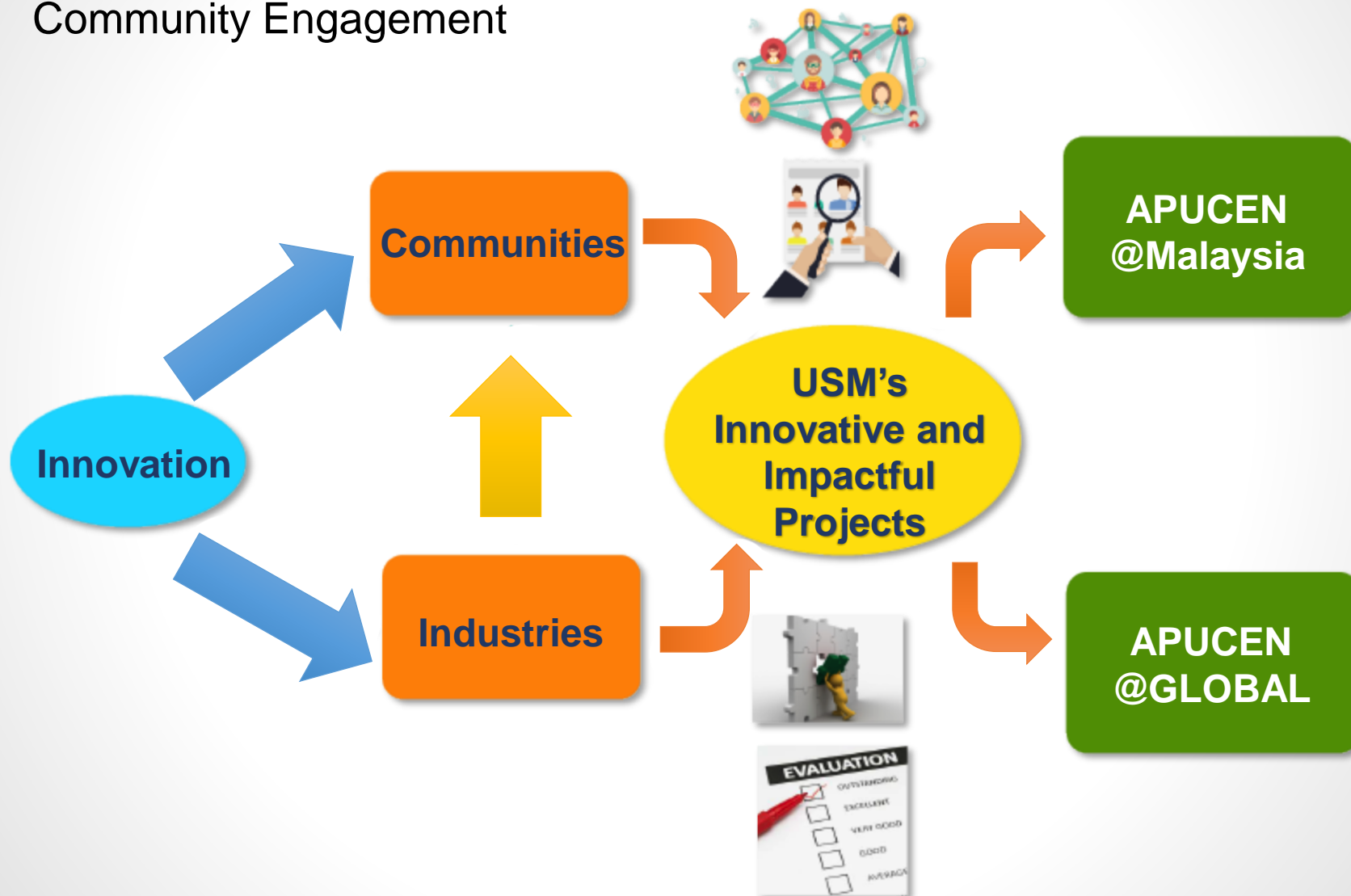
This will be a top down initiative that may involve all the following core activities of a university; teaching, research, outreach program, social innovations and entrepreneurship



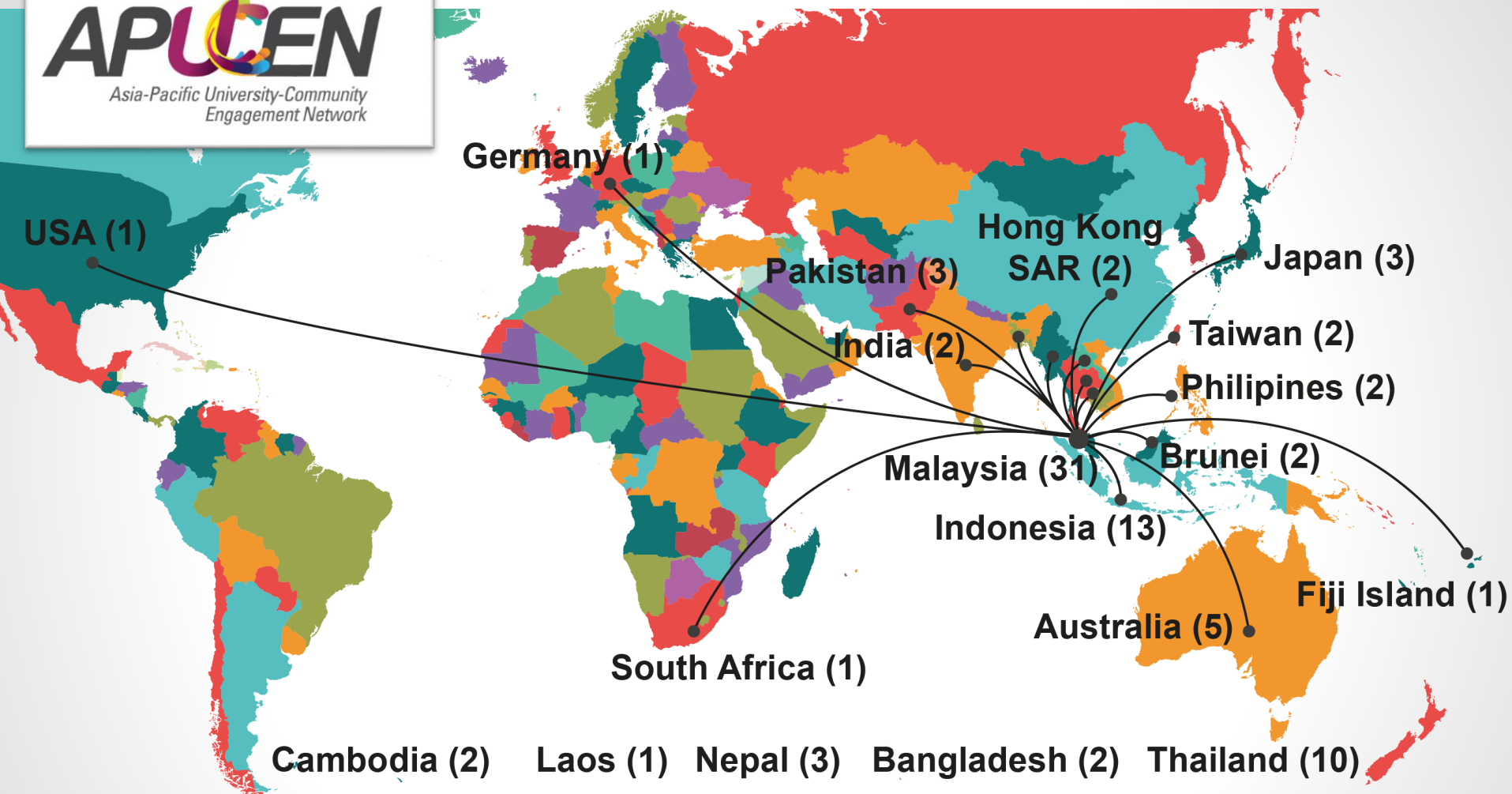




# Global Prominence through **academia**-industry relationship and Community Engagement







Number of Institutional Membership	87
------------------------------------	----

Number of Country	19
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**APUCEN was launched on 13<sup>th</sup> July, 2011.  
19 countries and 87 institutions**

# Hope for RDCI@USM

- We hope that the presence of the Nexus directors will help to nurture, encourage and catalyse researchers to move impactful research forward, enhance demand driven and social innovation in the country.
- What is important is that USM should conduct responsible research with integrity.
- And we need to set olympiad targets and move USM in the ranking by DESIGN and not by CHANCE.





Perutusan Tahunan **2017** Universiti  
Naib Canselor Sains  
Malaysia

# *Financial Sustainability*

Kami Memimpin | *We Lead*  
[www.usm.my](http://www.usm.my)



# Generating surplus for USM

- Currently government can no longer maintain the requirement for massification of higher education. This is a phenomenon worldwide.
- Hence public universities including USM have been asked to generate up to 30% of its required operational costs.
- USM is a university for public good. We are not for profit organization
- Hence entrepreneurial policy must be put in place to ensure sustainability of the university
- We need to make new money and not be dependent on our reserves. We need to make the new money in matters that we are good at which is our core business.
- As an entrepreneurial university USM has not unleashed its full potential. We are working on it...fast.



## Members Of The Board Of Governors



Chairman Of The  
Board Of Governors



### Government



### Corporate members



Secretary

50% Board of  
Governors  
are corporate  
members.



**Chair of  
Finance  
Board, USM  
is corporate  
member.**

**Big agenda  
in JKPU to  
drive income  
generation  
up to 30% of  
operating  
budget**



**Director of  
Business  
Development**



## INSTRUMEN STRATEGIK PERNIAGAAN USM

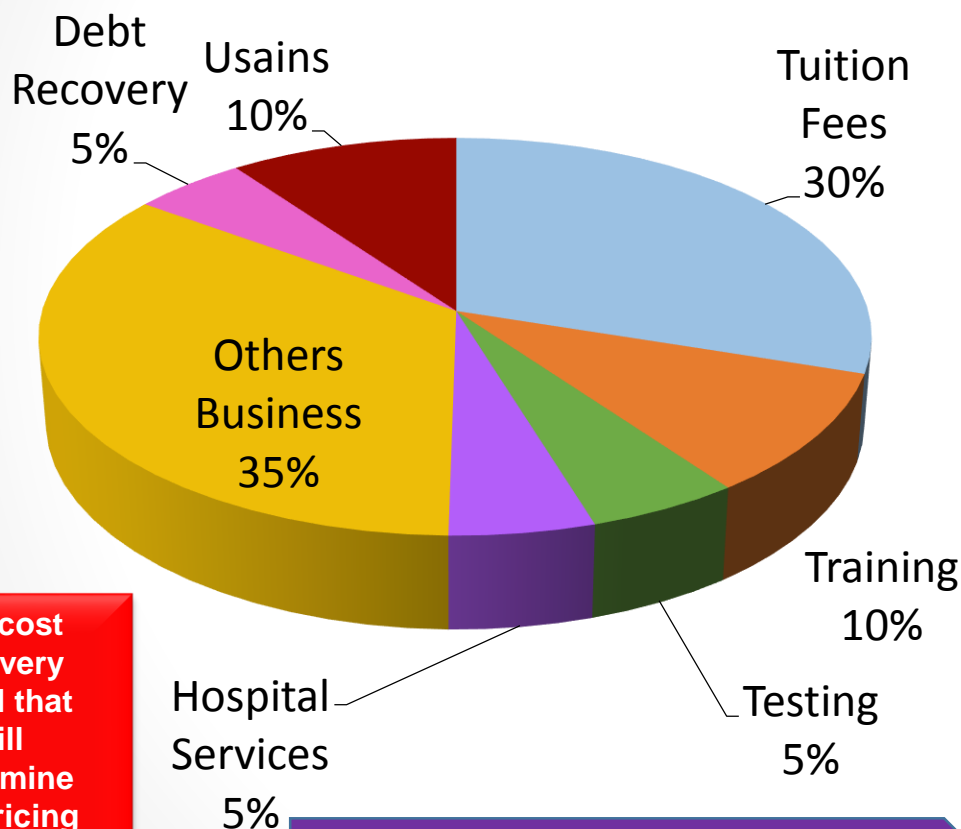


**Last year we  
are short of  
7%**



# USM Income Generation Strategy For 2017

This year we have a game plan



Target: RM380 million

1

## Strategic initiative: Tuition Fees

1. Charging foreign students in USD
2. Full cost fee for Medical UG Programs
3. Cost recovery fees of local sponsored students (T20)
4. Effective marketing strategies and promotional packages to increase international students
5. Double/dual degree

2

## Strategic initiative: Training

1. Professional Certificates, HRDF, short term executive courses.
2. Student Attachment
3. Mobility Programs

3

## Strategic initiative: Testing

1. Revise business model & new charges to achieve full cost recovery (ABrC, SERC, IPPT, Pusat Sejahtera, INFORMM, PPSP, other PTJs)

4

## Strategic initiative: Hospital Services

1. New business models & restructure charges.
2. After office clinics (Pusat Sejahtera, IPPT Dental Services, HUSM).

5

## Strategic initiative: Other Business

1. Commercialise spaces, facilities & research products
2. Top performing investments & cash managements
3. New business initiatives (private hospital, accommodation services, potential low risk business ventures)
4. Tapping to research findings potential (i.e. Archeology Centre, Sungai Batu Kedah)

6

## Strategic initiative: Debt Recovery

1. Collect 20% of outstanding debts (avg. total debt is RM90m).
2. Enforce rules, contracts and agreements on debt management.
3. Improve operating procedures
4. Shared responsibility between Bursary and Legal Office

7

## Strategic initiative: Usains

1. Increase Usains contributions to USM (10% of 2017 targeted income).

## Deep dive

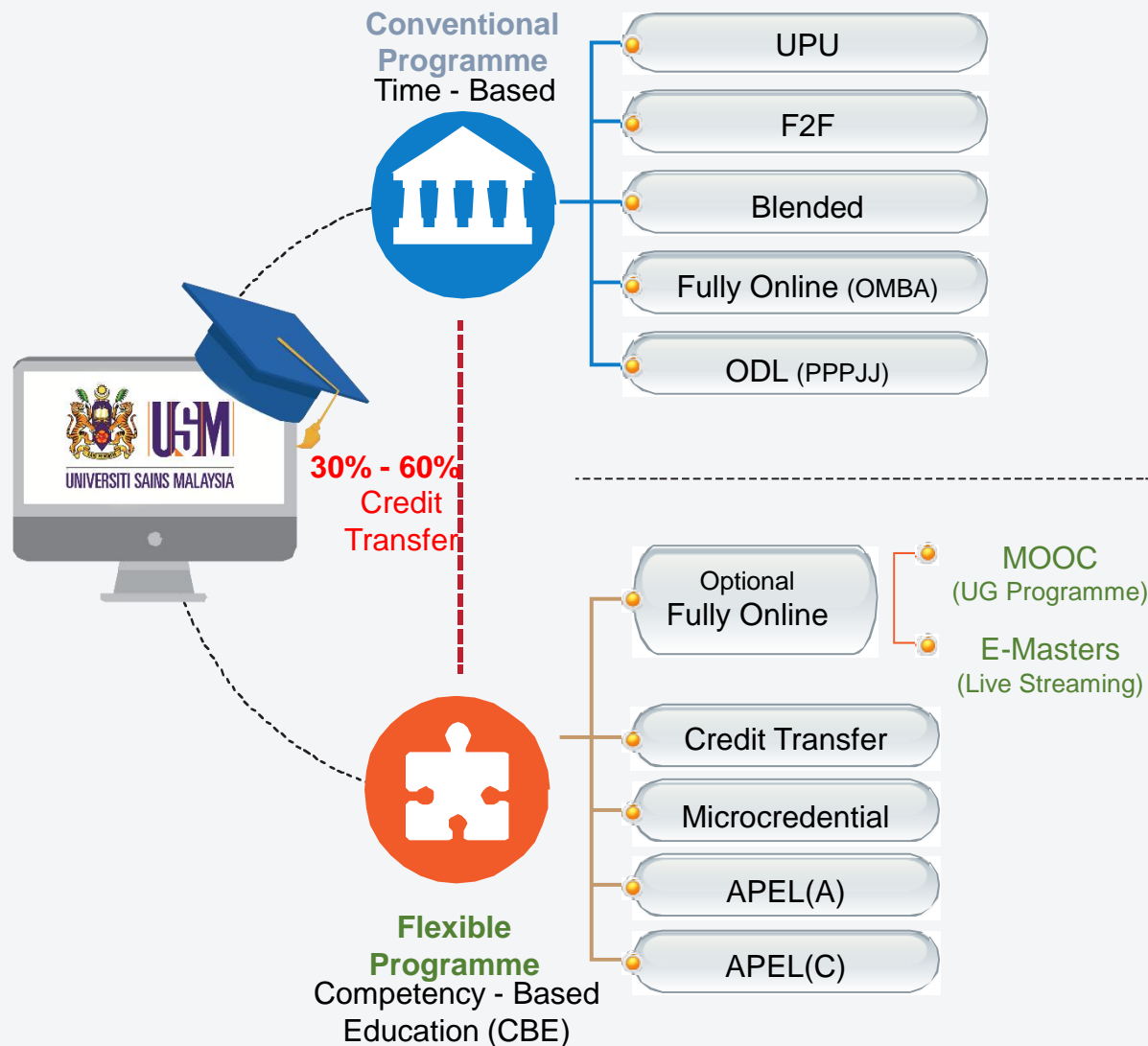
1

### Strategic Initiative 1: Tuition Fees

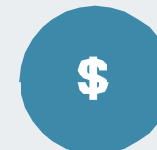
Programs	RM million
1. Undergraduate	34
2. Postgraduate	68
3. Distance learning	5
4. KLE	6
5. Offshore Programs	1

114

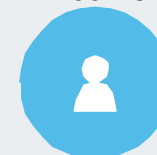
## MOVE TOWARDS FLEXIBLE EDUCATION



## DELIVERABLES



Limited Income



Limited Enrollment



High Maintenance



Unlimited Enrollment



Unlimited Income



Low Maintenance

## 2

### Strategic Initiative 2: Training

Initiatives	RM million
1. Professional certification, HRDF, short-term executive courses	
a. PIPPA, USM	4
b. HRDF	5
c. Cost Centers (Conference/Seminars)	5
d. USM@KL City Campus (UTM Space Model)	7
2. Mobility Programs	9
3. Student Attachment	8

38



3

## Strategic Initiative 3: Testing

**KPIs will be given to PTJs**

### Initiatives

### RM million

Revise business model and new charges (full cost recovery and competitive market pricing)

a. ABrC	4
b. SERC	2
c. IPPT	3
d. Pusat Sejahtera	1
e. INFORMM	2
f. School of Medical Sciences	1
g. INOR	2
h. CEDEC	2
i. Other cost centres	
i. Biology	0.4
ii. Physics	0.4
iii. Chemistry	0.4
iv. Industrial Technology	0.4
v. Chemical Engineering	0.4
vi. Materials Engineering	0.4
vii. House, Building & Planning	0.4
viii. Archeology	0.2

**Fikir positif**

**KITA CUBA DULU**

20

## 4

### Strategic Initiative 4: Hospital Service

#### Initiatives

#### RM million

- 1 New business model and restructure of charges
- 2 Private wing full paid patients
- 3 After office clinics
  - a. Pusat Sejahtera
  - b. IPPT - Dental Services
  - c. Hospital USM

0.4

0.5

18

19

5

## Strategic initiative 5 : Other Business

Initiatives	RM million
1. Commercialising University spaces and facilities for rental	
a. Eureka/Sains@USM	2
b. Cost centres	0.5
c. Hostels	13
d. Sports Arena and sport facilities	0.5
e. Other spaces and facilities	2
2. Investing in top performing cash investments	45
3. Commercialisation of research products	7
4. Tapping to research findings potential	
a. Archeology Center; Sungai Batu Kedah	0.5
b. Others	1.5
5. New business initiatives	13
6. Student services	47

132

\* Student Services refers to other than tuition fees i.e registration, library, transportation, ICT. Most of these fees are due for revision

6

## Strategic Initiative 6: Debt recovery

Initiatives

RM million

- 1 Enforcement of rules, contracts and agreements with regards to debt management
- 2 Improve accounts receivable operating procedures
- 3 Shared responsibility on debt collection between Bursary and Legal Office

19



7

## Strategic Initiative 7: USAINS Holdings Sdn. Bhd.

Initiatives

RM million

To increase USAINS contribution  
to the University (10% of 2017  
targeted income of USM)

38

# CHALLENGES TO INCREASE NUMBER OF FOREIGN STUDENTS

## CHALLENGES

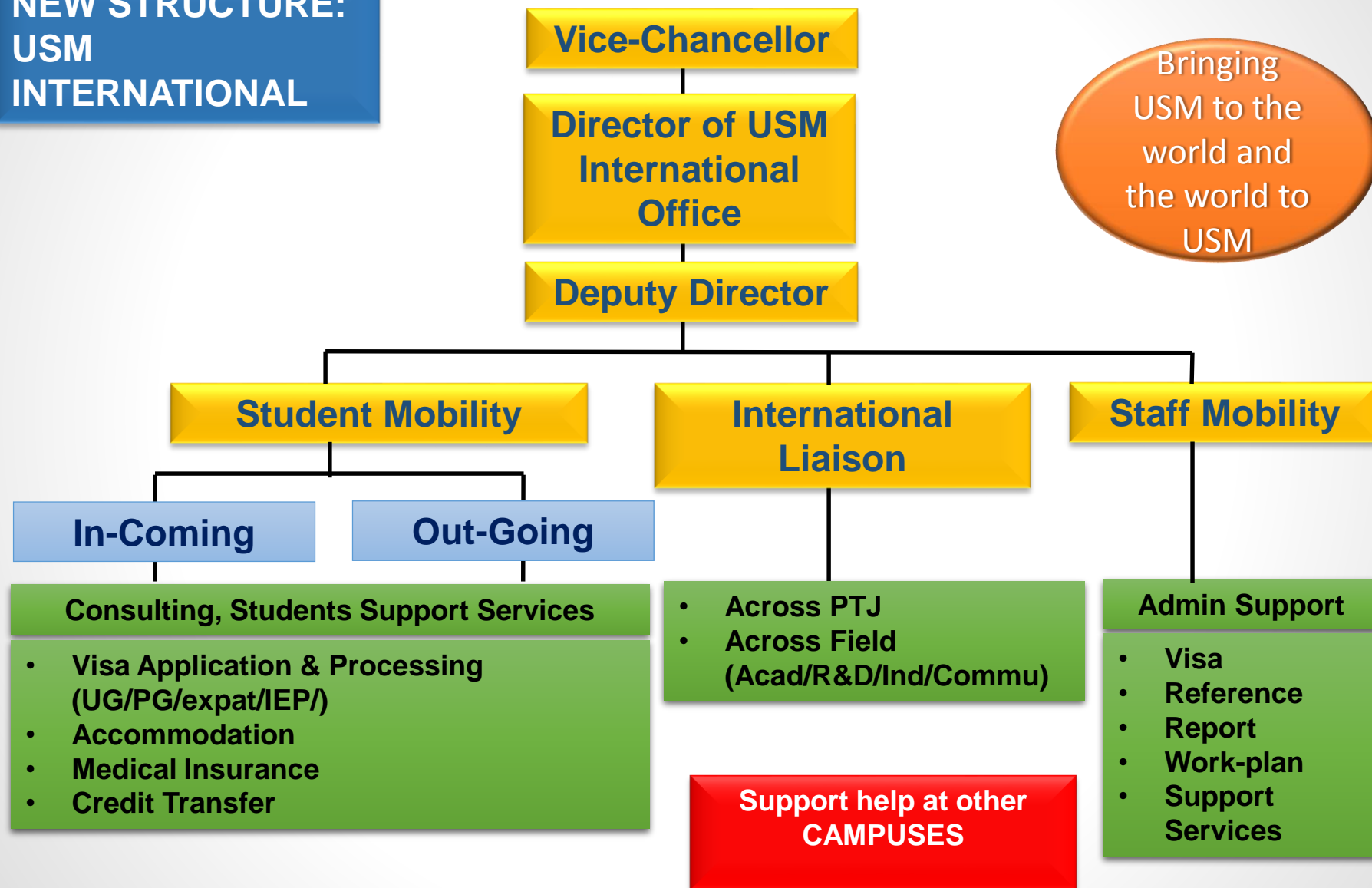
Increase enrolment of international students

Increase number of students participating in mobility programmes

Strengthening USM's Education brand



## NEW STRUCTURE: USM INTERNATIONAL



# New initiatives

- Towards the end of 2016, government has allowed UG tuition fees for Medicine, Dental and Pharmacy to be charged at full cost to Foreign students.
- Hence allowing for the first time foreign students to be enrolled in these courses.
- All foreign students enrolled (not more than 5%) for UG and no limit for PG
- All new intake will be charged in USD
- We are not raising the fees we are just converting to USD. All charges (accommodation etc) will be in USD. This way we are not affected by the exchange rate.



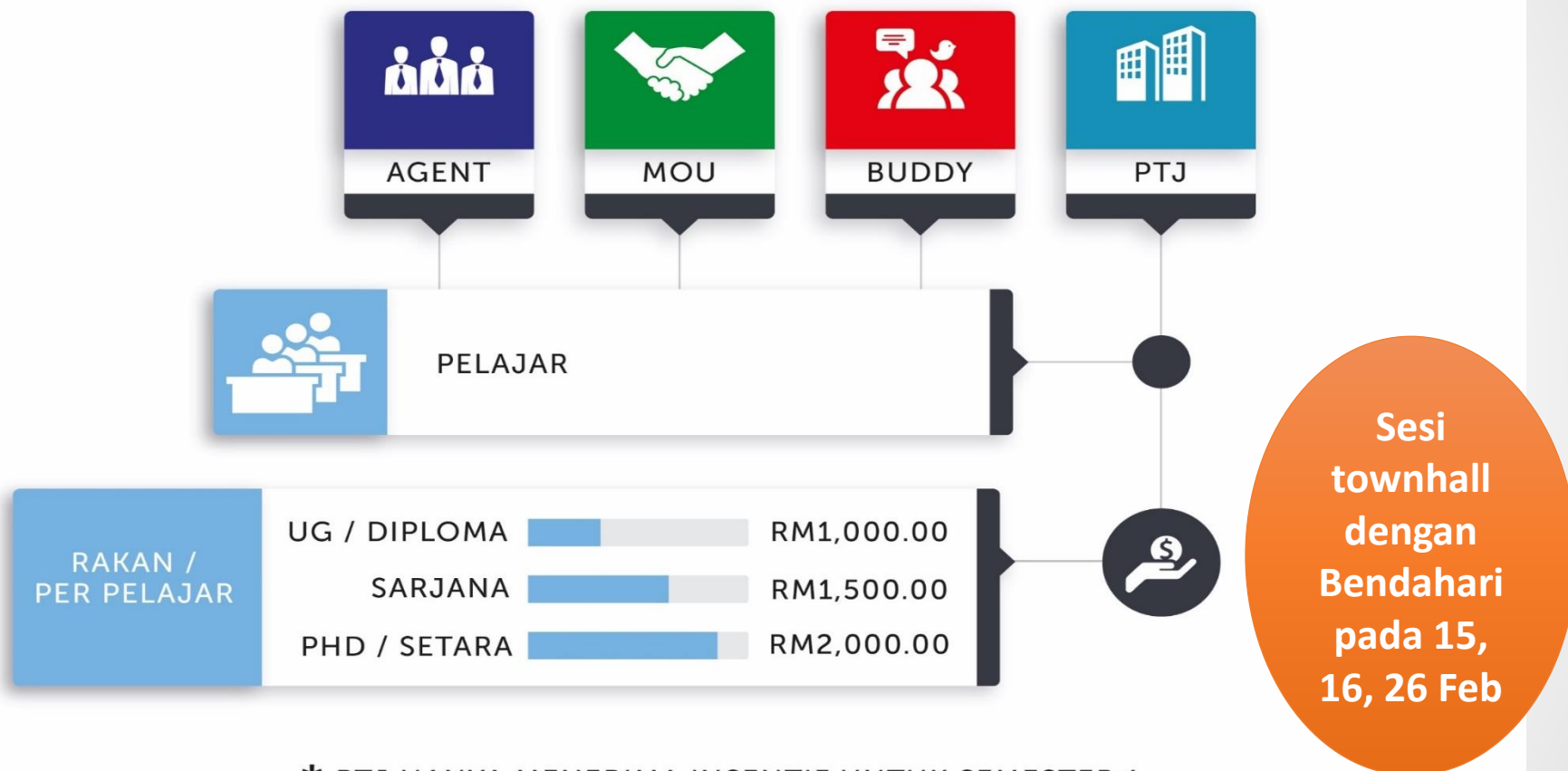


# Marketing for foreign students

- What is obvious is not to have a marketing and promotion arm in the university.
- EVERYONE in the university has to do the marketing and promotion because only the PTJ knows best about what to promote and where to find the market.
- We are creating new initiatives to get foreign students to USM
  - Buddy system (students/staff find the potential candidates)
  - MOU/MOA
  - Agents
  - PTJ itself finding the students
- The university will therefore INCENTIVISE the PTJs to find and register the foreign students.



## MODEL PROMOSI DAN INSENTIF PENGAMBILAN PELAJAR ANTARABANGSA

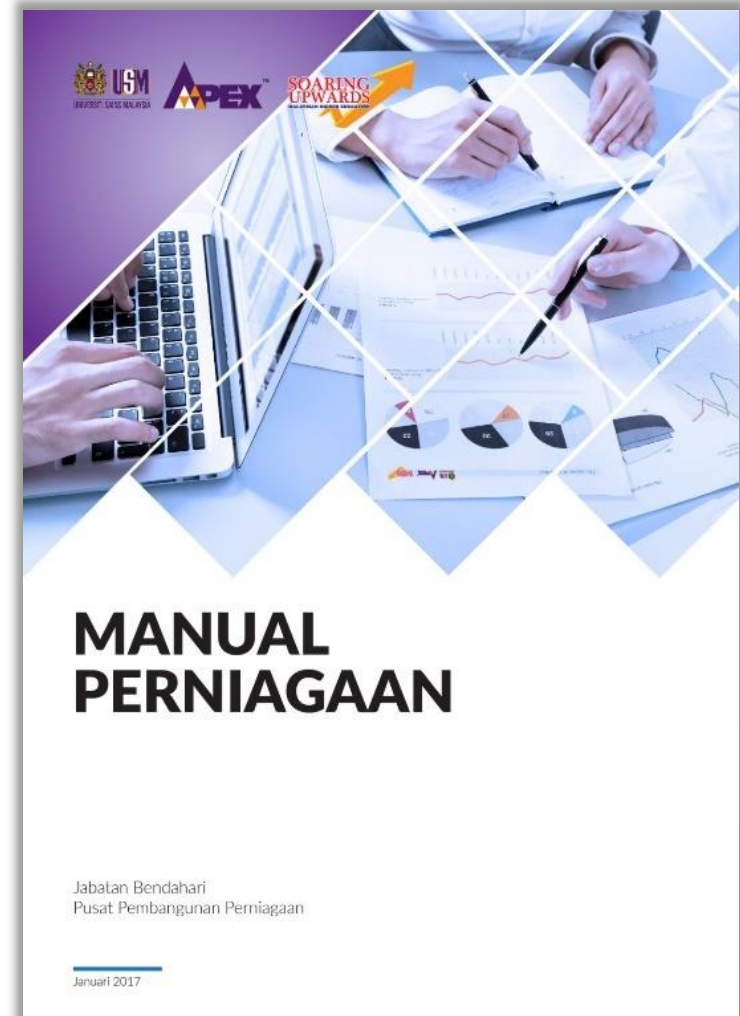


\* PTJ HANYA MENERIMA INSENTIF UNTUK SEMESTER 1  
KEMASUKAN PELAJAR ANTARABANGSA, SEMESTER 2 DAN SETERUSNYA  
PENDAPATAN YURAN PELAJAR KEPADA UNIVERSITI

# MANUAL PERNIAGAAN UNIVERSITI

Menggariskan asas panduan penjanaaan pendapatan PTJ dan universiti melalui instrumen strategik perniagaan universiti *Optimization-Saving-Income (OSI)*

Tahniah pada Bendahari dan Pusat Pembangunan Perniagaan





Perutusan Tahunan  
Naib Canselor **2017** Universiti  
Sains  
Malaysia

# *Happiness Index*

Kami Memimpin | *We Lead*  
[www.usm.my](http://www.usm.my)



# Happiness index

- The asset of any organization is its people.
- We spend a large number of hours per day thinking about work or doing work. But its also possible to spend quantity without quality output.
- We need to be outcome-based driven by both KPI and KIP (tangibles and intangibles)
- To strive for outcome-based, we need **INTRINSIC MOTIVATION within the organization.**
- We must develop passion in people.
- The need to move USM to grow, evolve and embrace change must be felt by everyone.
- Only then can USMers feel a sense of belonging to the university, passion for the university and be inspired by what it plans to do.



# Happiness index

Before we deep dive into the USM's Happiness Index, ask ourselves are Malaysians in general happy people?



# WHERE IS MALAYSIA NOW?

**Aim:** One of the top 20 nations in the world (TN50)



No	Economic (The Global Competitiveness Index 2016-2017)	Creativity and Innovation (Global Innovation Index 2016)	Happiness (World Happiness Report 2016)
1	Switzerland		Denmark
2	Singapore		Switzerland
3	USA		Iceland
4	Netherlands		Norway
5	Germany		Finland
6	Sweden		Canada
7	United Kingdom		Netherlands
8	Japan		New Zealand
9	Hong Kong SAR	Netherlands	Australia
10	Finland	Germany	Sweden
	<b>Malaysia</b>	<b>25</b>	<b>35</b>
			<b>47 (29%)</b>

**#SYUKUR  
SELALU**

**Happiness index: Singapore 22; Thailand 33; Indonesia 79 Out of 157**

# Happiness index for students

**Good learning  
experience**

**To get a job or be a  
job creator**

**Students come to USM not just to  
have a degree but to have a future**





# Student Enrolment (2016)



UG:  
**21,210**

PG:  
**10,323**

TOTAL:  
**31,533**

UPDATED:  
20 OCTOBER 2016



# OUR STUDENTS DESERVE THE BEST EDUCATION USM CAN OFFER



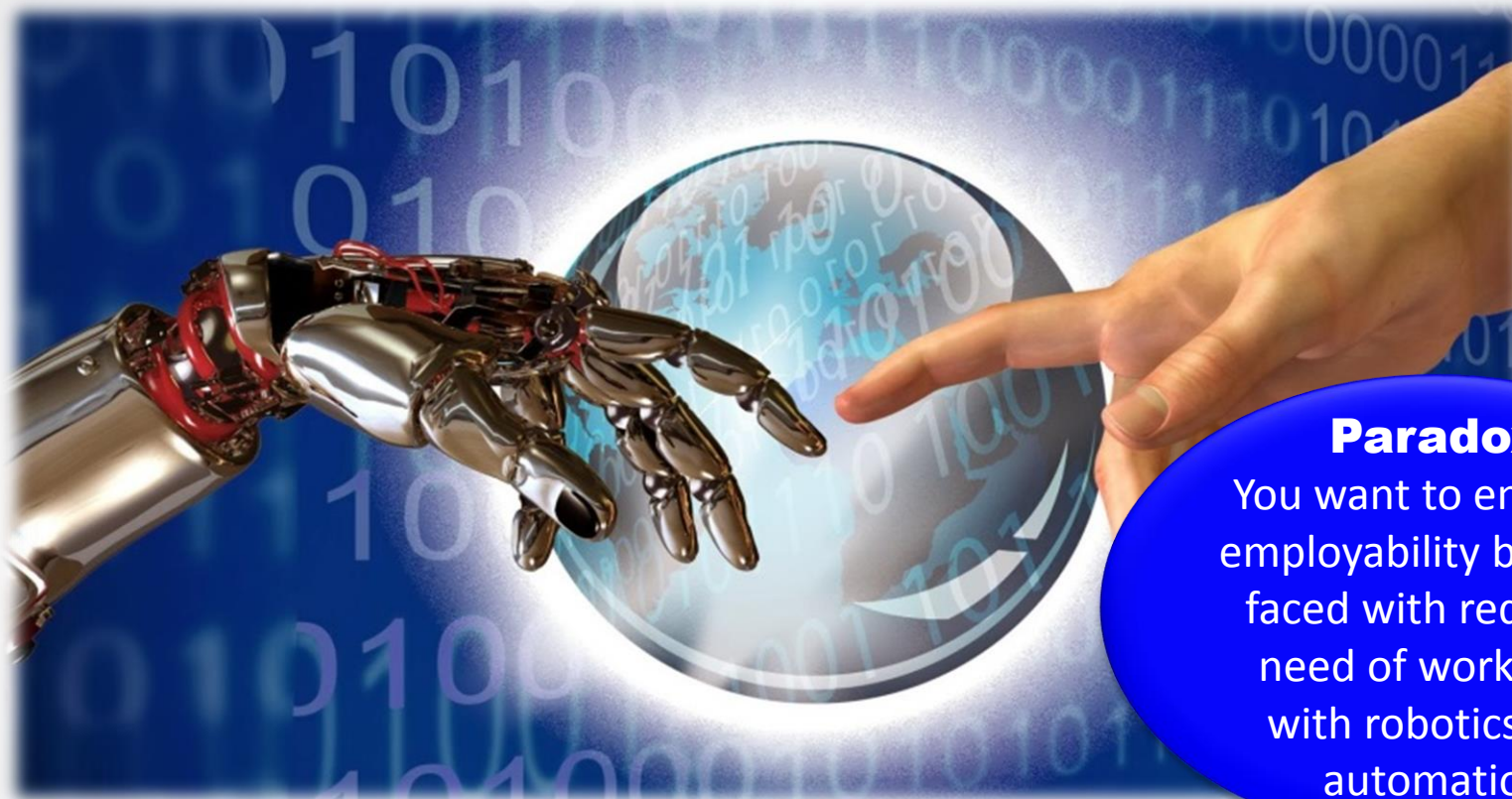
# What can students expect from USM?

- 35% of jobs today will no longer exist 20 years from now.
- USM degree must offer value-add and be relevant
- The degree should teach the students to be able to **ADAPT** in the future.
- The adaptability can be nurtured with experiential learning





# 4th Industrial Revolution



Convergence of technology, internet of things, big data, robotics and automation

Interface between man and machines



# Entrepreneurial Culture

## Job Creators



The best solution is to create job creators rather than job seekers.

As an APEX university, USM's entrepreneurial policy is to nurture **JOB CREATORS** with emphasis on **VALUES**.



# A balanced job creator with values

**H.E.B.A.T**  
students

**Malaysia Education  
BLUEPRINT – Shift 1**

**Sustainability-led  
university (APEX Agenda)**

**Rukun Nilai  
(Values)**

Wisdom | Truth | QALBU | Humanity |  
Beauty



Graduan Holistik, Berciri  
Keusahawanan dan  
Seimbang



1

2

Kecemerlangan  
Bakat



27%  
INCREMENT  
(14,263)

	2014/2015 Students	2015/2016 Students
Band 6	0	9
Band 5	555	1,316
Band 4	5,295	11,128
Band 3	20,088	27,748
Total	25,938	40,201

MUET

STUDENT  
ENTREPRENEURS



- Siswa Tani
- Pribumi Investment Camp
- Entrepreneur Incubation

2u2i

2 years University  
2 years Industry

- UMK: Entrepreneurship
- UPM: Plantation
- UiTM: Communication
- UMT: Accountancy  
(Industrial Collaboration)

USM will move  
towards flexible  
education



CEO@FACULTY PROGRAMME  
Learn from the PROs

INDUSTRY  
EXPOSURE

MOHE's Efforts to Enhance  
GRADUATE  
EMPLOYABILITY



iCGPA

Integrated Cumulative  
Grade Point Average

- Entrepreneurship
- Management Skills
- Communication Skills







## The “Oscars of Higher Education” 2016

- **Dr. Muhamad Saiful Bahri Yusoff** from School of Medical Sciences, **USM** made Malaysia proud by winning the **Reimagine Education Award 2016 – Teaching Delivery Category**
- An annual global recognition to educational innovators organized by **QS World University Rankings** and Wharton School-SEI Centre University of Pennsylvania.
- Attracted **807 submissions** from **56 countries**, 527 entries were accepted and 140 shortlisted.
- International panel of judges comprise of 40 experts (i.e., **Google, Microsoft, IBM, Coursera, Harvard Innovation Lab, etc**).
- Three main evaluation criteria: **innovation, impact, depth or scalability**.
- The **first Asian** to win this Award for this category.



<http://www.reimagine-education.com>





Reimagine Education Award  
2016 – Teaching Delivery  
Category



The **first Asian** to win this Award for  
this category



**Congratulations**

# Re-Imagining Education for the Twenty-First Century in USM

## WHAT

## IF ?

- We don't own any buildings
- We don't own any dorms
- We don't own any labs
- We have classes round the world
- The lecturers can be anywhere
- Small classroom to five personal attention
- Low tuition fees
- Students are global

# 7 cities

during four years of  
intensive study.


San Francisco  
Berlin  
Buenos Aires  
Seoul  
Bangalore  
Istanbul  
London



**We can do it via  
our partners in  
APUCEN**

**Everything is  
rented/  
outsourced**

# The APEX agenda: Meaning through purpose



Learn  
Un-Learn  
Re-Learn  
Co- Learn  
Co-Create



# Aligning with APEX agenda

- To create a USM global player with emphasis on values
- Why not all of USM students own a passport
- They will use this passport to observe and experience a week in the life of the marginalised population and deliver solutions to real- life problems

Sometimes in life we do good things not because it is a must but because it is the right thing to do

# Happiness index for staff



# Talent in USM



**3,608**

Main Campus



**841**

Engineering  
Campus



**578**

Advanced  
Medical and  
Dental Institute

**TOTAL  
10,075**

**1,976**

Health  
Campus



**3,072**

HUSM



As of 24/1/2017



**1,948 academic  
vs 8,127 non  
academic  
Ratio 1:4.2**



**Total population**  
**Health campus=5048**  
**Bigger than campus**  
**Penang!!**

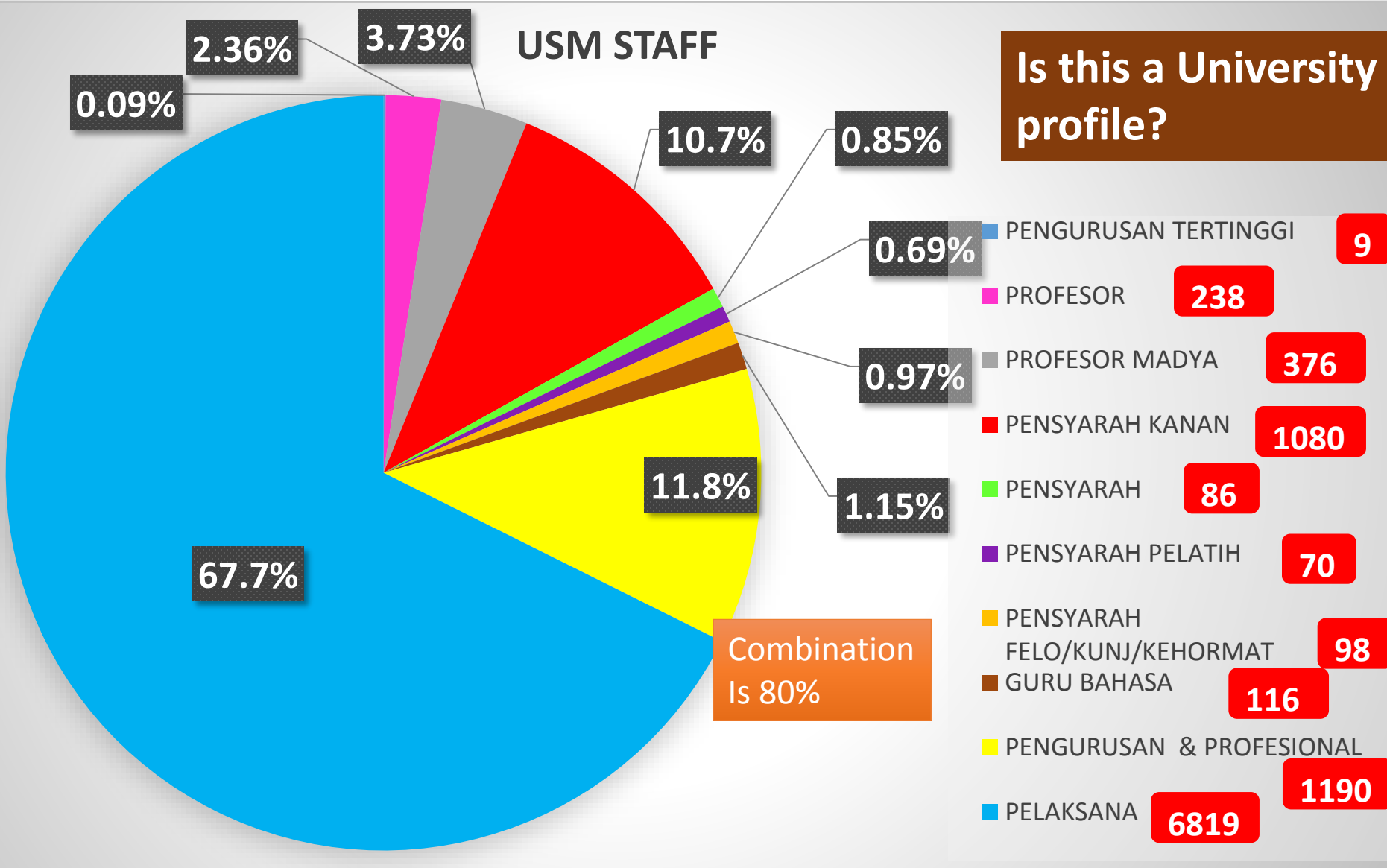


GROUP/ CAMPUS	MAIN CAMPUS	ENGINEERING CAMPUS	HEALTH CAMPUS	HUSM	IPPT
TOP MANAGEMENT	9	0	0	0	0
ACADEMIC STAFF	1,010	249	591	0	91
LANGUAGE TEACHERS	86	14	16	0	0
MANAGEMENT & PROFESSIONAL STAFF	513	81	203	325	68
SUPPORT STAFF	1,990	497	1,166	2,747	419
<b>TOTAL</b>	<b>3,608</b>	<b>841</b>	<b>1,976</b>	<b>3072</b>	<b>578</b>

As of 24/1/2017



# Composition of USM STAFF



**3.5%**  
attrition rate  
in 2016

	2016	2017
1. Bersara Wajib	176	12 / 171
2. Bersara Pilihan	88	21
3. Bersara Kesihatan	1	0
4. Kematian	10	0
5. Letak Jawatan	61 (0.6%)	4
6. Khidmat Ditamatkan	19 (0.18%)	0
7. Pelepasan Jawatan	0	0



# Mirror mirror on the wall

- Expected ratio is **1 academic to 2 non-academic**
  - UM without hospital staff 1:1.8
  - USM without hospital staff is 1:2.3
- Mirror mirror on the wall: **USM is FAT.**
- In fact **WE are OBESE.** How obese are we compared to other universities in the world? This phenomenon is not strange. UK universities (71%) also show the same phenomenon with a national average support staff of 53% . London School of Business (85%)(Times Higher Education)

## So HOW to reduce weight?

- Following the government ruling, we need to exercise the exit policy
- HR has investigated the PTJs that are with surplus and will undergo re-positioning and re-tooling of existing staff
- We will undergo trade-off of posts to attain a better career development of the staff
- To all heads of PTJs. We beg your indulgence. Until things improve, we will not be replacing those that has left the university. However we will consider replacements for posts that will contribute to the advancement of our RU status.

# Happiness index



- The motto “**Saya sayang USM**” showed positive vibes but “**Adakah USM sayang saya?**” needs to be addressed.
- Its unrealistic that a big organisation like USM can satisfy everyone but at least lets open the channels of communication.
- This is especially so regarding promotion exercises. We will townhall on this aspect because while many understand the criteria for promotion many more still do not understand and assumes that the goal post is changing.
- The university needs to work harder on this aspect and we will improve based on your feedback
- What we want is a 2 way communication so that we do not create gaps and misunderstandings



We need to do Townhall, we need to send infographics, we need to do face to face ...

# Communicate

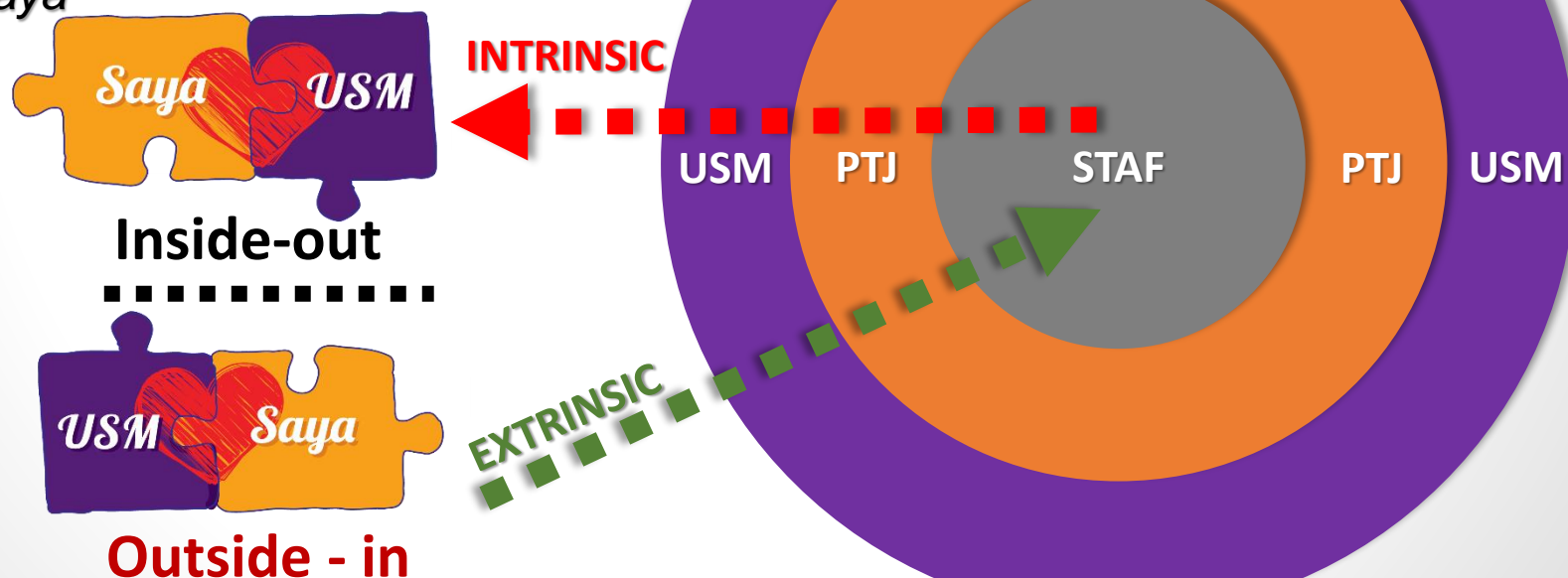
# Communicate Communicate



# “Saya sayang USM, USM sayang saya”

- Walaupun selalu ditanya apa USM boleh buat untuk kita, perlu juga kita bertanya apa yang kita boleh buat untuk USM.
- Kita perlu ada harapan bersama (**mutual expectations**) bagi *inputs* and *outcomes*.
- Konsep ini akan menjadi tunjang pada slogan ‘*Saya sayang USM, USM sayang saya*’

## MUTUAL Expectations for inputs and outcomes



# “USM sayang saya”

- Siapa kata USM tak sayang dengan kakitangannya.
- Walaupun kita menghadapi peruntukan yang telah dipotong tetapi setakat ini tidak ada lagi kakitangan yang tidak dibayar gaji dan bonus. Dengan itu #syukur selalu.
- Universiti ada banyak cara untuk memberi ganjaran pada kakitangannya.
- Ganjaran ini akan memainkan peranan meningkatkan Motivasi dalaman (intrinsic motivation) warga bekerja USM

## ANTARA GANJARAN DARIPADA UNIVERSITI.....

- Gaji dan bonus ( lebih RM 500 juta setahun tidak termasuk HUSM)
- Bayaran Bantuan Khas Kewangan (RM 500 seorang)
- Peluang kemajuan kerjaya (akademik 121; pentadbiran 711)
- Pembangunan potensi diri melalui peluang latihan melalui CDAE, PTI, PTJ – (94.5% capai mata minimum CPD)
- Kemudahan rawatan staf (RM 2.6 juta)
- **Flexible Scheme For Retired Scholars (FSRS)**
- e-Birthday Card (kepada semua staf tetap dan kontrak)
- **Majlis Penghargaan dan Pengiktirafan Universiti (1951 penerima)**
- *Job Rotation* pentadbiran (559)
- Staf Pelaksana dinaikkan ke kumpulan Pengurusan dan Profesional (56)
- Staf kontrak diserap ke jawatan tetap (68)
- Kemudahan fizikal dan sokongan

# **FLEXIBLE SCHEME FOR RETIRED SCHOLARS (FSRS) (4 tracks ++)**

We need to retain the seniors to provide mentorship and be the role models to inspire the young

The wealth of the university lies in its wisdom. To stop brain drain FSRS was developed



# FLEXIBLE SCHEME FOR RETIRED SCHOLARS (FSRS)

## PRINSIP

- Profesor dan Staf Akademik yang kompeten dan telah bersara
- Lantikan selama satu (1) tahun
- Pilihan TREK
- Gaji FSRS dibayar secara puka

## HONORARIUM

JAWATAN	Honorarium SEBULAN
PROFESOR A	RM 12,000
PROFESOR B	RM 10,000
PROFESOR C	RM 8,000
PROFESOR MADYA/SETARAF	RM 6,000

- Dilantik sebagai pensyarah dan dibenarkan gelaran Professor
- Tandatangan "agreement"

## TREK LALUAN FSRS

Bridge to USM

- Trek Pengajaran
- **Trek Pengajaran (USAINS)\***
- Trek Penyelidikan
- Trek Kepimpinan Institusi
- Trek Amalan Profesional
- **Trek Amalan Profesional (USAINS)\***
- **Trek Amalan Profesional (CLINICIAN)\***

\* Trek baru yang dicadangkan oleh USM

**Pensyarah Kehormat**  
(tanpa bayaran)

## KELEBIHAN FSRS USM

- Mengekalkan Profesor/staf akademik dalam ekosistem bakat USM
- Menawarkan pelbagai laluan(trek) 4 trek++ berbanding 4 trek dalam BLUE PRINT

WE will also have the 4 track for promotion as stated in the blueprint

# Rewarded for loyalty to USM

General worker who kept campus clean among 283 award recipients



Sanjungan Budi award recipient Ahmad (left) and Jasamu Dikenang award recipient Abd Wahab showing the certificates and watches they received.

KEEPING the Universiti Sains Malaysia (USM) campus in Penang clean has been a passion of Abd Wahab Aziz, 60, for four decades.

It was a bittersweet moment when the general worker finally retired on Sept 29.

"I was completely in sync with all my former colleagues.

"Working at the campus was such a great experience for me. I always found something to do as I never like to laze around," he said during an awards and recognition ceremony at USM's Dewan Tuanku Syed Putra recently.

Abd Wahab was one of 160 recipients of the Jasamu Dikenang for their excellent service to the university.

At the ceremony, USM broadcasting producer Ahmad Zulman Mohd Zain, 52, was spotted wearing Police Volunteer Corps attire.

"Oh, I'm not a police officer. It's just that

you are supposed to wear your uniform every Wednesday," Ahmad said.

His love for the university started when he was a student there.

He obtained both his bachelor's and master's degrees from USM and now, he is pursuing his PhD on a part-time basis there.

"I will be here at USM until I retire at 60. I love it here."

Ahmad was among 123 staff members who received the Sanjungan Budi award for serving the university for 25 years.

USM vice-chancellor Prof Datuk Dr Asma Ismail commended all the 283 recipients for their loyalty to the university.

"I encourage everyone here to share and pass on their knowledge.















"In teaching others, we teach ourselves. A candle loses nothing by lighting another candle," she said in her opening speech.



## Majlis Penghargaan dan Pengiktirafan Universiti (1951 penerima)

# **APA PULA HARAPAN USM PADA KAKITANGANNYA?**

# USM Headline KPIs 2016

Headline KPIs	Description	Target	Achievement
Headline KPI 1	Percentage graduates with employed status as of convocation	83%	74.3% 
Headline KPI 2a	(i) Number of international students enrolled	4,659	1,945 
Headline KPI 2b	(ii) Number of international postgraduate students enrolled	4,211	1,750 
Headline KPI 3a	(i) Total number of publications per lecturer in indexed journals	2	1.45 
Headline KPI 3b	(ii) Total number of citations per lecturer	39	92.5 
Headline KPI 4	Self-generated income as % of total operating expenditure	25%	28.7% 
Headline KPI 5a	(i) Student attrition rate - UG	5%	3.71% 
	(ii) Student attrition rate - Masters	18%	12% 
	(iii) Student attrition rate - PhD	18%	20.7% 
Headline KPI 5b	(i) Intake Graduate on-time rate (iGoT) - UG	89%	86.5 
	(ii) Intake Graduate on-time rate (iGoT) - Masters	52%	52.4% 
	(iii) Intake Graduate on-time rate (iGoT) - PhD	48%	37.4% 
Headline KPI 6	Percentage of student enrolment in TVET programmes	-	NA
Headline KPI 7a	(i) Number of placements within QS Top 50 global ranking by subjects	2	1 
Headline KPI 7b	(ii) Number of placements within QS Top 200 global ranking by subjects	16	19 

**Overall:**



(8/14)



(3/14)



(3/14)



Perutusan Tahunan  
Naib Canselor **2017** Universiti  
Sains  
Malaysia

**This is a journey ...not a destination  
We don't grow when things are easy, we  
grow when we fix challenges**

**Sama-sama kita  
bangunkan  
Universiti...gaya USM**

Mentransformasi Pendidikan Tinggi untuk Kelestarian hari esok  
*Transforming Higher Education for a sustainable tomorrow*

**Terima kasih  
Thank you  
vc@usm.my**

Kami Memimpin | **We Lead**  
**www.usm.my**