UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein

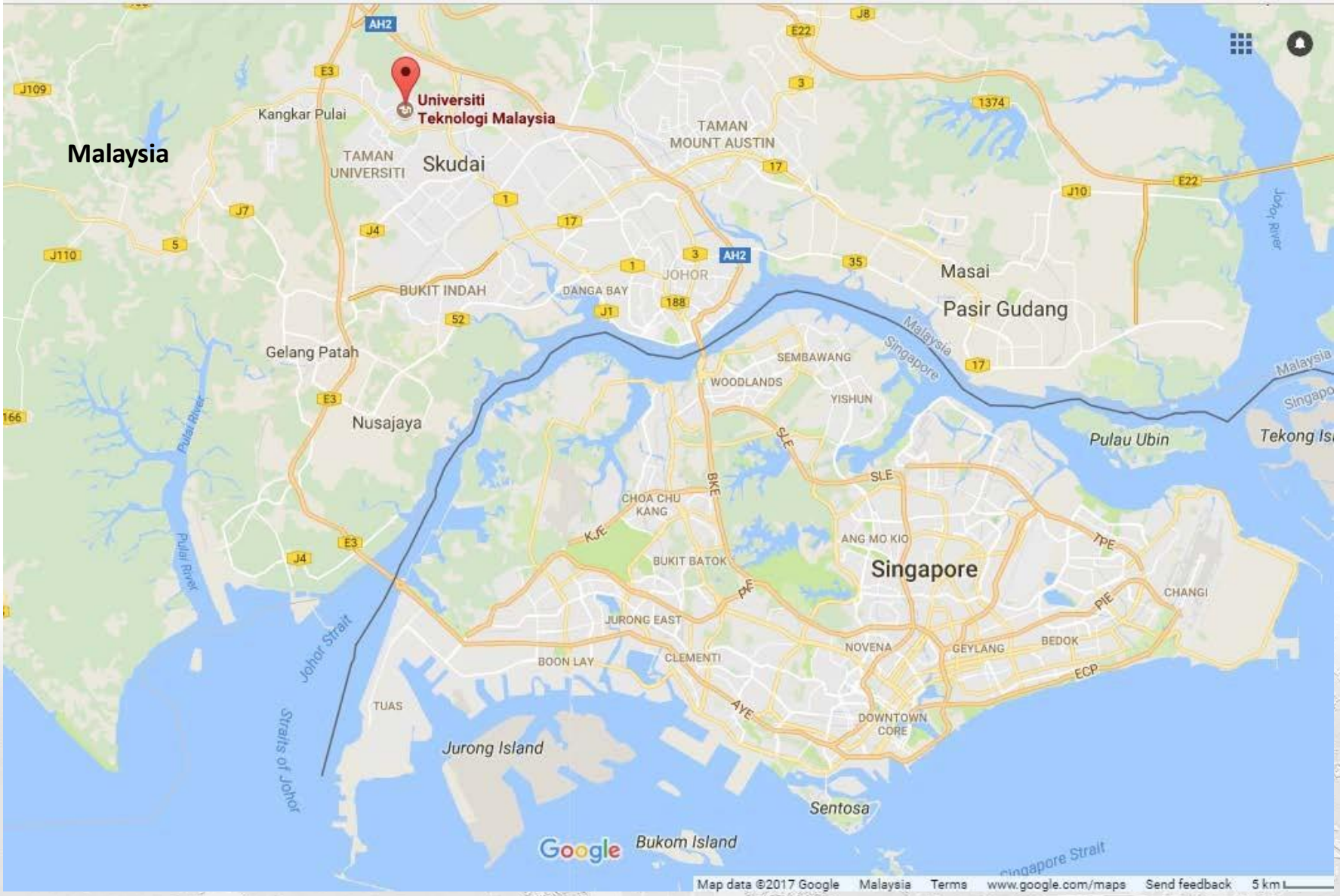
REPESEA

UTM Johor Bahru Campus
(1,147 Hectares)

UTM Kuala Lumpur Campus
(35 Hectares)

UTM Johor Bahru (JB) Main Campus

(3500 Hectares)



UTM's Journey

From Technical School to Research University

Autonomous University
2012

Research University
2010

Universiti Teknologi Malaysia (UTM)
1975

National Institute of Technology (ITK)
University Status
1972

[1960] Technical College
– Professional Programmes

[1955] Technical College, Jalan Gurney

[1946] Technical College – Diploma

[1930] Technical School, High Street

[1925] Technical School, Jalan Briickfields --- JKR

[1906] Technical School, Batu
Lane , Bukit Nanas

[1904] Treacher Technical
School, Weld Road

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Faculties, Research and Business Entity(ies)

UTM
UNIVERSITI TEKNOLOGI MALAYSIA

ENGINEERING

- Civil Engineering
- Biosciences and Medical Engineering
- Electrical Engineering
- Mechanical Engineering
- Chemical and Energy Engineering

SCIENCE & TECHNOLOGY

- Science
- Computing
- Geoinformation and Real Estate
- Razak School of Engineering and Advanced Technology
- Malaysia Japan International Institute of Technology
- Advanced Informatics School

18
faculties and schools

190+
postgraduate courses offered

12k+
postgraduates enrolled (2016)

SOCIAL SCIENCES

- Built Environment
- Education
- International Business School
- Islamic Civilization
- Language Academy
- Management
- Perdana School of Science, Technology and Innovation Policy

UTMSPACE ESTD 1993™ PUPW

- Lifelong learning
- Franchise
- Part time, off campus
- International Degree Programme (UTM-IDP)

Research Entities

5	Research Niche Areas
4	Higher Institution Centre of Excellence (HICoE)
11	Centre of Excellence including research institutes
150	Single & multi discipline research groups

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UTM in Numbers

Notes : * As of 31 March 2017
As of 58th UTM Convocation

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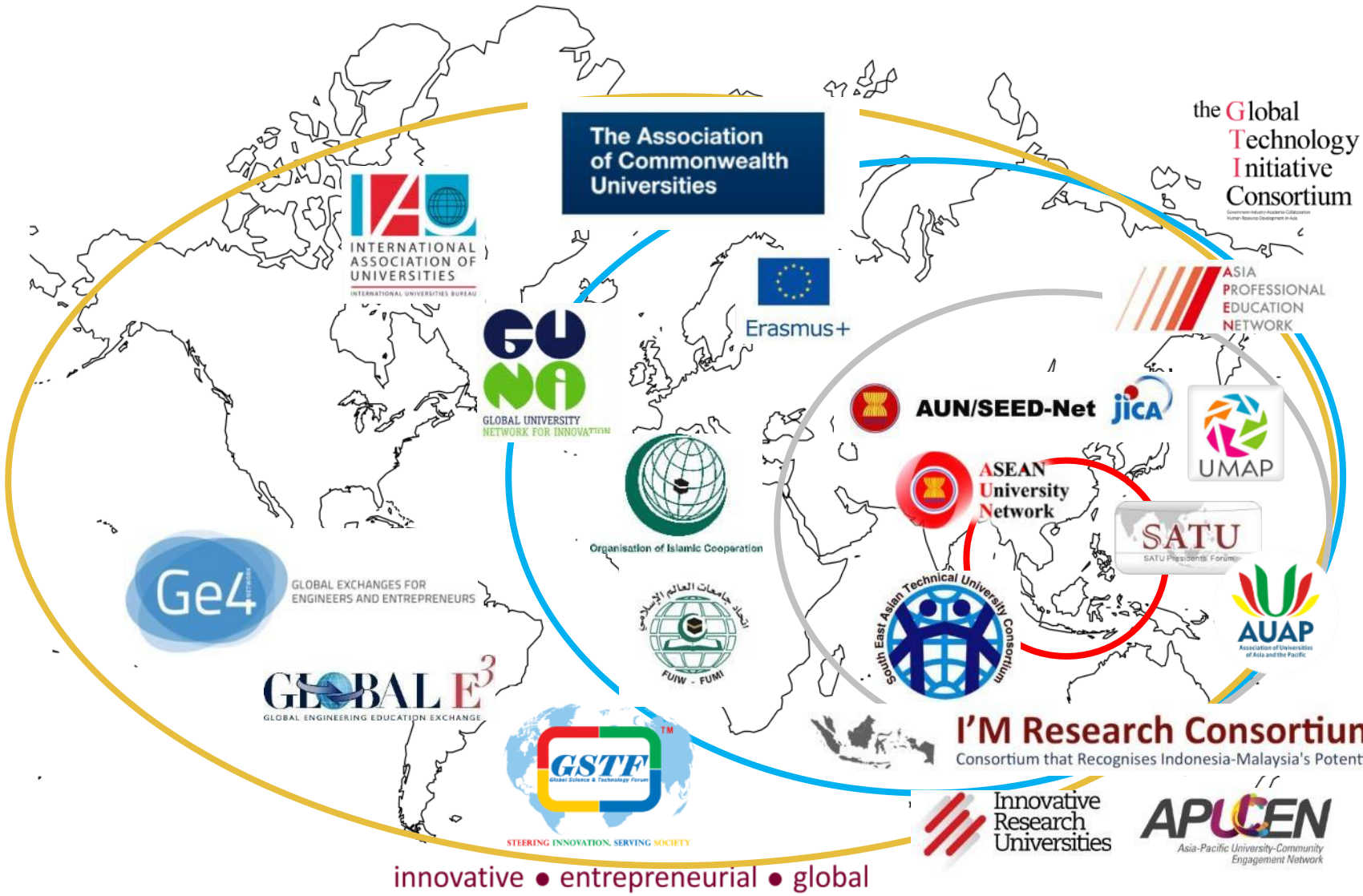
UTM
UNIVERSITI TEKNOLOGI MALAYSIA

UTM Global Rankings 2016/2017

Global Alliances in Niche Area (multi-lateral partnerships)



MIT-UTM Malaysia Sustainable Cities Program (MSCP)

40 MALAYSIAN GOVERNMENT AGENCIES

27 VISITING SCHOLARS

60 NON-GOVERNMENT AGENCIES

30 UTM STUDENTS INVOLVED

55 COMPANIES

60 MIT STUDENTS INVOLVED

45 INDIVIDUALS /ACTIVISTS

Massachusetts Institute of Technology

UTM UNIVERSITI TEKNOLOGI MALAYSIA

MIT CoLab

ISI INSTITUTE SULTAN ISKANDAR OF URBAN HABITAT AND HIGHRISE

DUSPMIT

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- Heriot-Watt University, Dearman Engine Company (UK) and Green Data Centre LLP in
  - "Next Generation Green Data Centres for Environmental and Business Sustainability" worth MYR12.9M (GBP2.3M)
- University of York and University of Leeds in Southeast Asia Small Scale Research Partnerships-Newton-Ungku Omar Fund (UK-SEA-NUOF) 2016,:
  - "Sustainable production of compost, biofuels and chemicals from oil palm residues". – worth MYR453,700 (GBP80,000)
- Loughborough University in:
  - "Printed solar modules for large area roof applications"
- University of Northumbria in:
  - Development of the Incremental SI(Structure and Infill) Housing for Low-income Population in Malaysia
- Future Cities Catapult Limited (UK) in:
  - "Building local capacity in understanding, analyzing and visualizing big data in Malaysian cities in Malacca"

HERIOT WATT UNIVERSITY

Dearman.

UNIVERSITY of York

UNIVERSITY OF LEEDS

Loughborough University

northumbria UNIVERSITY NEWCASTLE

CATAPULT Future Cities

Strategic Global Partnership with Japan: MJIIT

Malaysia-Japan International Institute of Technology (MJIIT)

- Mechanical Precision Engineering
- Electronic Systems Engineering
- Chemical Process Engineering

- Osaka University
- Tsukuba University
- Kyushu University
- Keio University
- Saitama University
- Shibaura Institute of Technology
- Takushoku University
- Tokai University
- Tokyo University of Agriculture and Technology
- Nagaoka University of Technology
- Nagoya Institute of Technology
- Japan Advanced Institute of Science and Technology (JAIST)
- Toyohashi University of Technology
- Meiji University
- Ritsumeikan University
- Ritsumeikan Asia Pacific University
- Yamaguchi University
- Kinki University
- Tokyo University of Technology
- Tokyo Denki University
- Tokyo University of Science
- Okayama University of Science
- Kyushu Institute of Technology
- Kanazawa University
- Yamagata University
- Tokyo City University

❖ **26 Japanese Consortium Universities**
❖ **5 Partner Government Agencies**

- *Ministry of Foreign Affairs of Japan*
- *Ministry of Education, Culture, Sports, Science and Technology-Japan*
- *Ministry of Economy, Trade and Industry-Japan*
- *The Japan Chamber of Commerce and Industry*
- *Japan International Cooperation Agency (JICA)*

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LOW CARBON SOCIETY ASIAN NETWORK

SATREPS

Science and Technology Research Partnership for Sustainable Development Program

FUND

200 million ¥

(RM 8 million)

PERIOD

2011 – 2016

(5 years)

RESEARCH TEAM: **Universiti Teknologi Malaysia (UTM),** Kyoto University (KU), Okayama University (OU), National Institute for Environmental Studies (NIES)

SPONSOR: Japan International Cooperation Agency (JICA) , Japan Science and Technology (JST)

HOST: UTM

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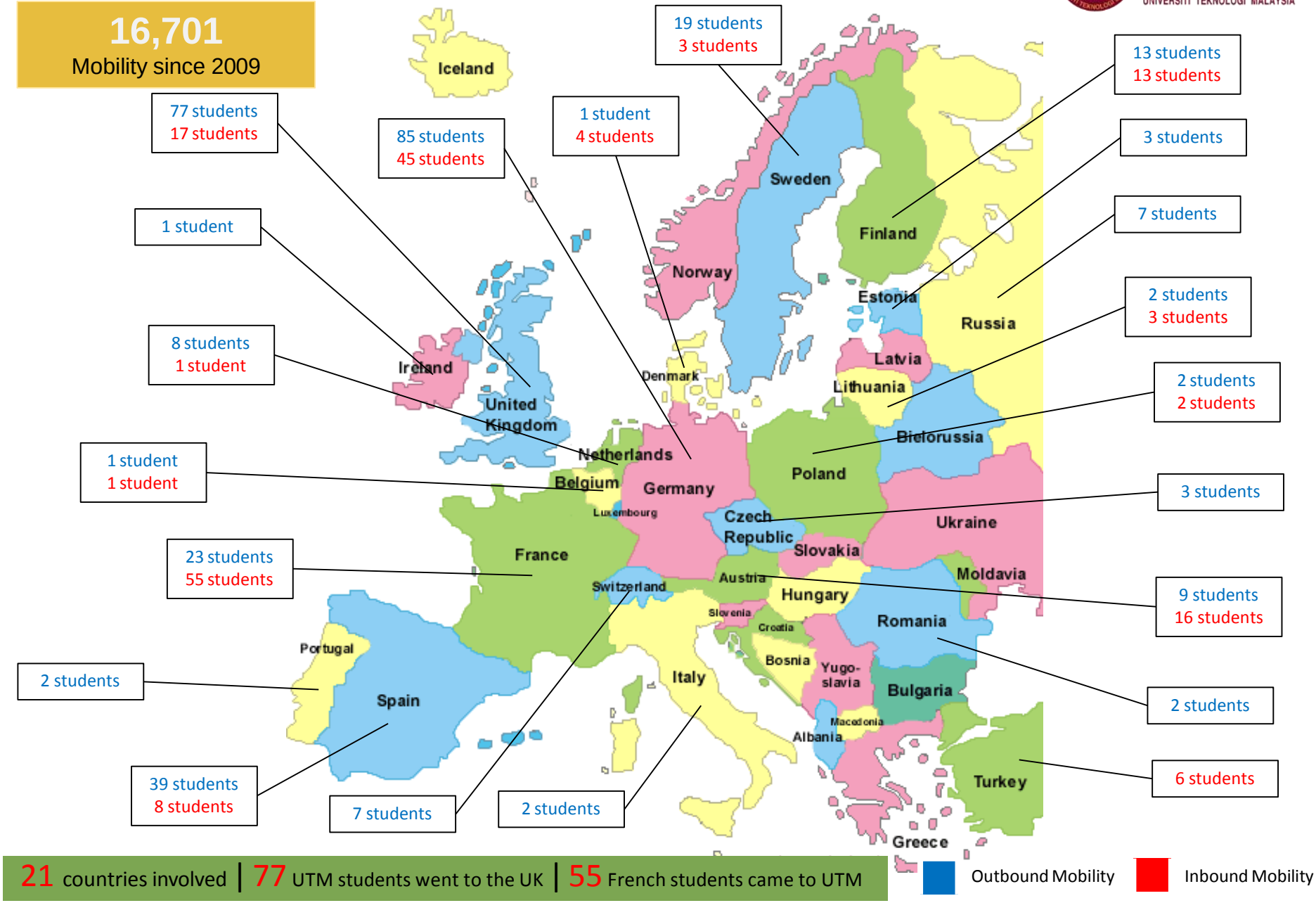
(Source: National Institute of Environment Studies, Japan)

UTM-EU Mobility Achievements (2013-2017)

UTM UNIVERSITI TEKNOLOGI MALAYSIA

16,701
Mobility since 2009



21 countries involved | 77 UTM students went to the UK | 55 French students came to UTM

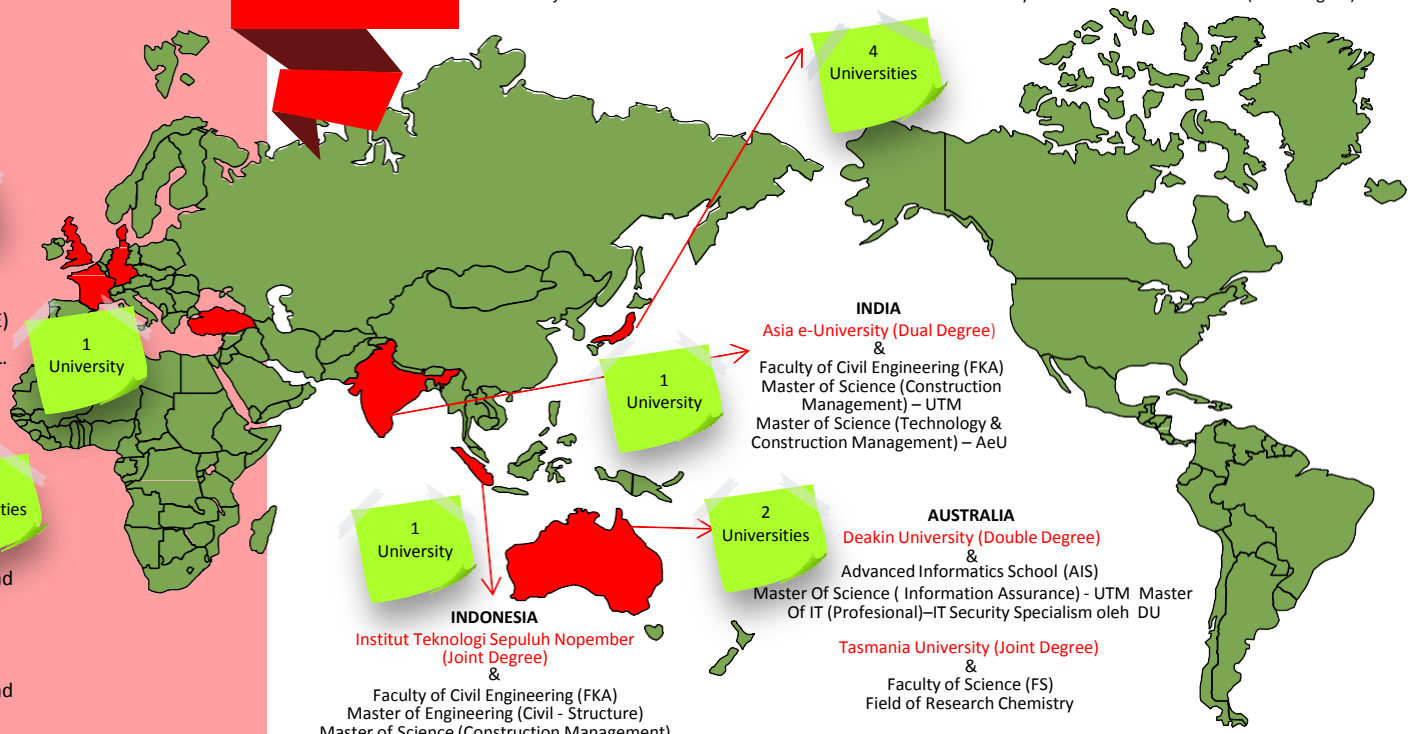
Outbound Mobility

Inbound Mobility

UTM Global Joint Programmes

UTM UNIVERSITI TEKNOLOGI MALAYSIA

9 Countries



UNITED KINGDOM
2 Universities

University of New Castle Upon- Tyne (Joint Degree)
&
Malaysian Japan International Institute of Technology (MJIIT)
Master of Philosophy
Doctor of Philosophy

University of Kent (Double Degree)
&
Faculty of Science (FS)
Sarjana Muda Sains (Matematik Industri)
B.Sc. Of Science (Actuarial Science) - UK

DENMARK
1 University

Aalborg University (Joint Degree)
&
School of Graduate Studies
PhD (Engineering Education)

GERMANY
1 University

Ilmenau University of Technology (Double Degree)
&
Faculty Biosciences and Medical Engineering (FBME)
PhD (Biomedical Engineering) - UTM;
Dr. Ing. In Computer Science and Automation - TUIL.

FRANCE
3 Universities

Bordeaux 1 University (Joint Degree)
&
Faculty of Science (FS)
PhD (Physics)

University of Burgundy (Double Degree)
&
Faculty of Electrical Engineering (FKE)
Master of Engineering (Electrical – Mechatronics and Automatic Control) - UTM
Master of Science in Computer Vision - UB

University of Bourgogne (Double Degree)
&
Master of Engineering (Electrical – Mechatronics and Automatic Control) - UTM
Master of Science in Computer Vision - UB

TURKEY
1 University

Yalova University (Dual Degree)
&
Razak School of Engineering and Advanced Technology (RAZAK School)
(Master of Engineering Business Management) – UTM
Master in Industrial Engineering) - YU

JAPAN
4 Universities

Tokai University (Double Degree)
&
Faculty of Mechanical Engineering (FKM)
Mechanical Engineering

Meiji University (Double Degree)
&
UTM Razak School
MSc Engineering Business Management- UTM
MBA - Meiji Univ

Yamaghuchi University (Double Degree)
&
Malaysian Japan International Institute of Technology (MJIIT)
Master of Mechanical Precision Engineering - UTM
Master in Management of Technology oleh - YU

Tsukuba University (Joint Degree)
&
Malaysian Japan International Institute of Technology (MJIIT)
Master of Sustainability and Environmental Sciences (Joint Degree)

INDIA
1 University

Asia e-University (Dual Degree)
&
Faculty of Civil Engineering (FKA)
Master of Science (Construction Management) – UTM
Master of Science (Technology & Construction Management) – AeU

INDONESIA
1 University

Institut Teknologi Sepuluh Nopember (Joint Degree)
&
Faculty of Civil Engineering (FKA)
Master of Engineering (Civil - Structure)
Master of Science (Construction Management)
ITSN :
Majister Teknik (Struktur)
Majister Pengurusan Projek Pembinaan

UTMSPACE/FAB (NEW)
Sarjana Muda Ukur Bahan
(Separuh Masa)

AUSTRALIA
2 Universities

Deakin University (Double Degree)
&
Advanced Informatics School (AIS)
Master Of Science (Information Assurance) - UTM Master Of IT (Profesional)–IT Security Specialism oleh DU

Tasmania University (Joint Degree)
&
Faculty of Science (FS)
Field of Research Chemistry

15 Programmes (PG)
1 Programme (UG)
16 Universities

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UTM Study Abroad and Exchange Program

Spend one or two semesters take courses in a regular semester with credit transfer OR to join research study or internship under the supervision of an academic staff in UTM.

UTM Research Internship

UTM provides opportunities for students who are studying outside Malaysia to pursue cutting-edge trans-disciplinary research work for one to two semesters. Students can apply throughout the year.

UTM Summer School Program - MyTREE

Spend one or two semesters take courses in a regular semester with credit transfer OR to join research study or internship under the supervision of an academic staff in UTM.

Academic Visit to UTM

A group of students can spend 1 to 7 days in UTM to experience the unique Southeast Asian cultures, to study the global issue or to get access to extraordinary learning opportunities.

http://www.utm.my/international/inbound-mobility-programs/

Current UTM-Slovakia collaboration

- Laboratory of Protein Evolution, Institute of Molecular Biology, Slovak Academy of Sciences
- Department of Biology, Faculty of Natural Sciences, University of SS. Cyril and Methodius
- Department of Medical Informatics, Faculty of Medicine, Pavol Jozef Šafarik University in Košice
- Department of Instrumental and Biomedical Engineering, Faculty of Mechanical Engineering, Technical University of Košice

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MyRA®
MALAYSIA RESEARCH ASSESSMENT

- How do Malaysia measure research performance but compels capacity building and continuous improvements using a transparent measurement tool?

KEMENTERIAN PENDIDIKAN TINGGI

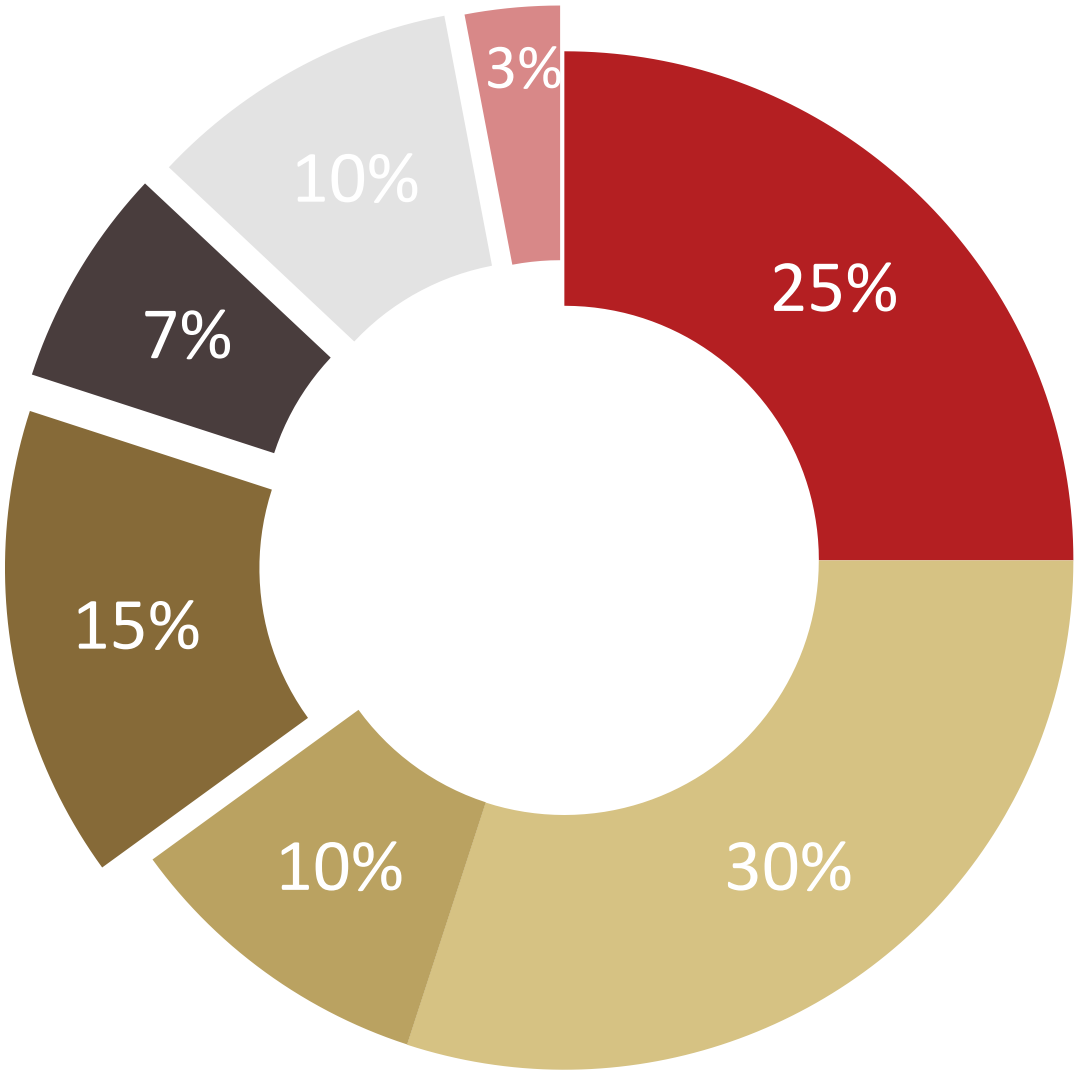
MyRA®
MALAYSIA RESEARCH ASSESSMENT

KEMENTERIAN PENDIDIKAN TINGGI

MyRA®
MALAYSIA RESEARCH ASSESSMENT

- Digital era sensitive measurement tool launched in 2006
- public universities and tertiary institutions with university status, the branch campuses of foreign universities and university colleges.
- rating of six levels with 'six stars'.

MyRA Score Distribution



- Section B: Quantity and Quality of Researchers (>200%)
- Section C: Quantity and Quality of Research (>200%)
- Section D: Quantity and Quality of Postgraduates (>200%)
- Section E: Innovation
- Section F: Professional Services and Gifts
- Section G: Networking and Linkages
- Seksyen H: Lab Acreditation

MyRA®

MALAYSIA RESEARCH ASSESSMENT

Malaysia Research Assessment (MyRA®) is an instrument for measuring the research, development, commercialization and innovation (RDC&I) activities in Public and Private Universities, Branch Campuses and University Colleges in Malaysia.

MyRA® rating is to measure the achievement of Higher Learning Institutions (HLIs) in RDC&I through the criteria and benchmarks that were set according to each indicator. It is not intended to provide ranking among the institutions.

MyRA® assessment is based on three key aspects; input, process and output which includes eight main criteria:

a. Quantity and Quality of Researchers
b. Quantity and Quality of Research
c. Quantity of Postgraduates
d. Quality of Postgraduates
e. Innovation
f. Professional Services and Gifts
g. Networking and Linkages
h. Support Facility

HLIs achievements in RDC&I are categorized into six levels with 6 Stars as the highest level.

Star Rating	Range For MyRA® Rating (Score)	
★★★★★★	≥100	
★★★★★	≥75	<100
★★★★	≥60	<75
★★★	≥45	<60
★★	≥30	<45
★	≥15	<30
No Star	≥0	<15

Ministry of Higher Education

This is to certify that

UNIVERSITI TENAGA NASIONAL

has been awarded

MyRA®

MALAYSIA RESEARCH ASSESSMENT

★★★★

(4 STAR)

in

MyRA® Star Rating Year 2014

Dato' Seri Idris bin Jusoh
Minister of Higher Education

MyRA®

Malaysia Research Assessment Instrument

The MyRA® (Malaysia Research Assessment Instrument) evaluation is designed to measure research, development and commercialization activities (R&D&C) at various institutes of higher education (both public and private that are designated as universities, overseas campus branches and university colleges) in Malaysia.

The assessment is based on three main aspects, namely input, process and output. In return, this three covers 8 main criteria:

- Quantity and Quality of the Researcher
- Quantity of Postgraduate Candidates
- Innovation
- Reach and Coverage
- Quantity and Quality of the Research
- Quality of the Postgraduate Candidates
- Professional Services and Gifts
- Support Facilities

The resulting achievement gained by these institutions are categorised according to 6 levels, 6 stars being the highest and 1 star being the lowest. The following is **the complete alphabetical list of MyRA® results (for public and private institutions) for the year 2011.**

6 STARS

CODE	NAME OF INSTITUTION
1	UNIVERSITI KEBANGSAAN MALAYSIA
1	UNIVERSITI MALAYA
1	UNIVERSITI PUTRA MALAYSIA
1	UNIVERSITI SAINS MALAYSIA

5 STARS

CODE	NAME OF INSTITUTION
1	UNIVERSITI ISLAM ANTARABANGSA MALAYSIA
1	UNIVERSITI TEKNOLOGI MALAYSIA
2	UNIVERSITI TEKNOLOGI PETRONAS

4 STARS

CODE	NAME OF INSTITUTION
	-

3 STARS

CODE	NAME OF INSTITUTION
2	MULTIMEDIA UNIVERSITY
2	MONASH UNIVERSITY SUNWAY CAMPUS
1	UNIVERSITI MALAYSIA PERLIS
1	UNIVERSITI UTARA MALAYSIA
2	UNIVERSITY OF NOTTINGHAM MALAYSIA CAMPUS

2 STARS

CODE	NAME OF INSTITUTION
2	TAYLOR'S UNIVERSITY
1	UNIVERSITI MALAYSIA PAHANG
1	UNIVERSITI MALAYSIA SABAH
1	UNIVERSITI MALAYSIA SARAWAK
1	UNIVERSITI MALAYSIA TERENGGANU
1	UNIVERSITI SAINS ISLAM MALAYSIA

2 STARS

CODE	NAME OF INSTITUTION
1	UNIVERSITI TEKNIKAL MALAYSIA MELAKA
1	UNIVERSITI TEKNOLOGI MARA
2	UNIVERSITI TENAGA NASIONAL MALAYSIA
2	UNIVERSITI TUN ABDUL RAZAK
2	UNIVERSITI TUNKU ABDUL RAHMAN

1 STAR

CODE	NAME OF INSTITUTION
2	BINARY UNIVERSITY
2	CURTIN UNIVERSITY OF TECHNOLOGY SARAWAK CAMPUS
2	SEGi UNIVERSITY
2	UNIVERSITI KUALA LUMPUR
1	UNIVERSITI MALAYSIA KELANTAN
1	UNIVERSITI PENDIDIKAN SULTAN IDRIS
1	UNIVERSITI PERTAHANAN NASIONAL MALAYSIA
1	UNIVERSITI SULTAN ZAINAL ABIDIN
1	UNIVERSITI TUN HUSSEIN ONN MALAYSIA

CLASSIFICATION CODE

1	Public Institutions
2	Private Institutions

MyRA® 2011 EVALUATION PANEL

MyRA® 2011 evaluation was carried out by a panel appointed by the Ministry of the Higher Education, consisting of the following esteemed academicians :

YBhg. Prof. Dr. Muhamad bin Jantan *(UKM)*
– Chairman
YBhg. Dato' Prof. Emeritus Dr. Md. Ikram bin Mohd. Said *(UKM)*
YBhg. Dato' Prof. Emeritus Dr. Muhamad bin Yahaya *(UKM)*
YBhg. Dato' Prof. Dr. Mohd. Jamil bin Maah *(UM)*
YBhg. Prof. Dr. Samsudin bin A. Rahim *(UKM)*

MyRA®

Malaysia Research Assessment Instrument

Penilaian MyRA® (Malaysia Research Assessment Instrument) bertujuan mengukur aktiviti penyelidikan, pembangunan dan pengkomersilan (R&D&C) di IPT, (IPTA dan IPTS bertaraf Universiti, Kampus Cawangan Luar Negeri dan Kolej Universiti) di Malaysia.

MyRA® menilai dari tiga aspek utama iaitu input, proses dan output yang meliputi lapan kriteria utama iaitu:

- ✓ KUANTITI DAN KUALITI PENYELIDIK
- ✓ KUANTITI PASCA SISWAZAH
- ✓ INOVASI
- ✓ JARINGAN DAN JANGKAUAN
- ✓ KUANTITI DAN KUALITI PENYELIDIKAN
- ✓ KUALITI PASCA SISWAZAH
- ✓ KHIDMAT PROFESIONAL DAN HADIAH
- ✓ KEMUDAHAN SOKONGAN

Pencapaian R&D&C IPT dikategorikan kepada enam tahap dengan 6 Bintang sebagai tahap tertinggi dan 1 Bintang sebagai yang paling rendah. Berikut merupakan senarai penuh keputusan MyRA® IPTA & IPTS bagi tahun 2011 mengikut susunan abjad:

6 BINTANG ★★★★★★

1 Universiti Kebangsaan Malaysia
1 Universiti Malaya
1 Universiti Putra Malaysia
1 Universiti Sains Malaysia

5 BINTANG ★★★★★

1 Universiti Islam Antarabangsa Malaysia
1 Universiti Teknologi Malaysia
2 Universiti Teknologi Petronas

4 BINTANG ★★★★

* *

3 BINTANG ★★★

1 Universiti Malaysia Perlis
1 Universiti Utara Malaysia
2 Multimedia University
2 Monash University Sunway Campus

2 BINTANG ★★

1 Universiti Teknikal Melaka
1 Universiti Teknologi MARA
2 Universiti Tenaga Nasional Malaysia
2 Universiti Tun Abdul Razak
2 Universiti Tunku Abdul Rahman

1 BINTANG ★

1 Universiti Malaysia Kelantan
1 Universiti Pendidikan Sultan Idris
1 Universiti Pertahanan Nasional Malaysia
1 Universiti Sultan Zainal Abidin
1 Universiti Tun Hussein Onn Malaysia
2 Binary University
2 Curtin University of Technology Sarawak Campus
2 SEGi University
2 University Kuala Lumpur

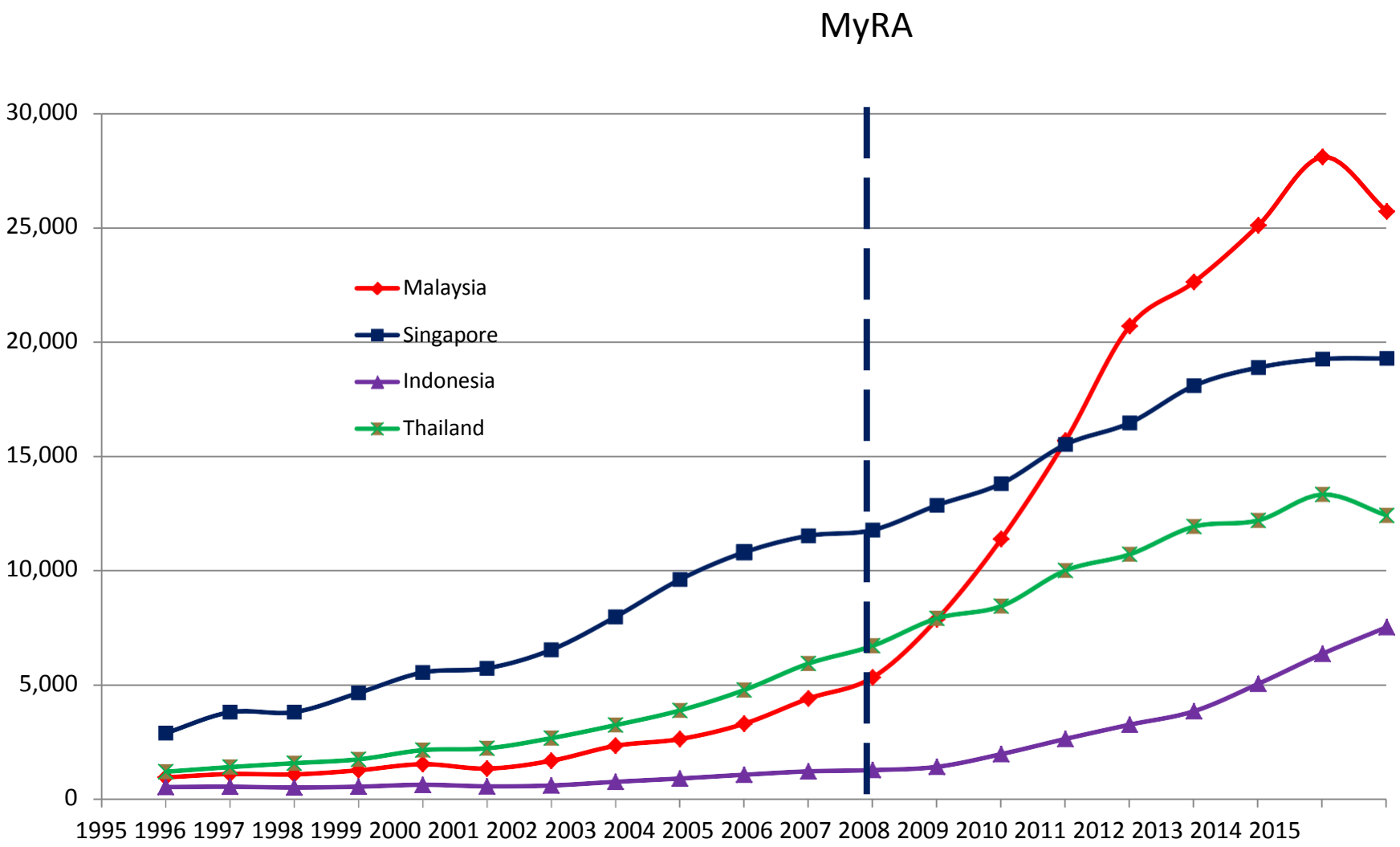
PANEL PENILAI MyRA® 2011

Penilaian MyRA® 2011 telah dilaksanakan oleh satu panel penilai yang dilantik oleh Kementerian Pengajian Tinggi yang terdiri daripada:

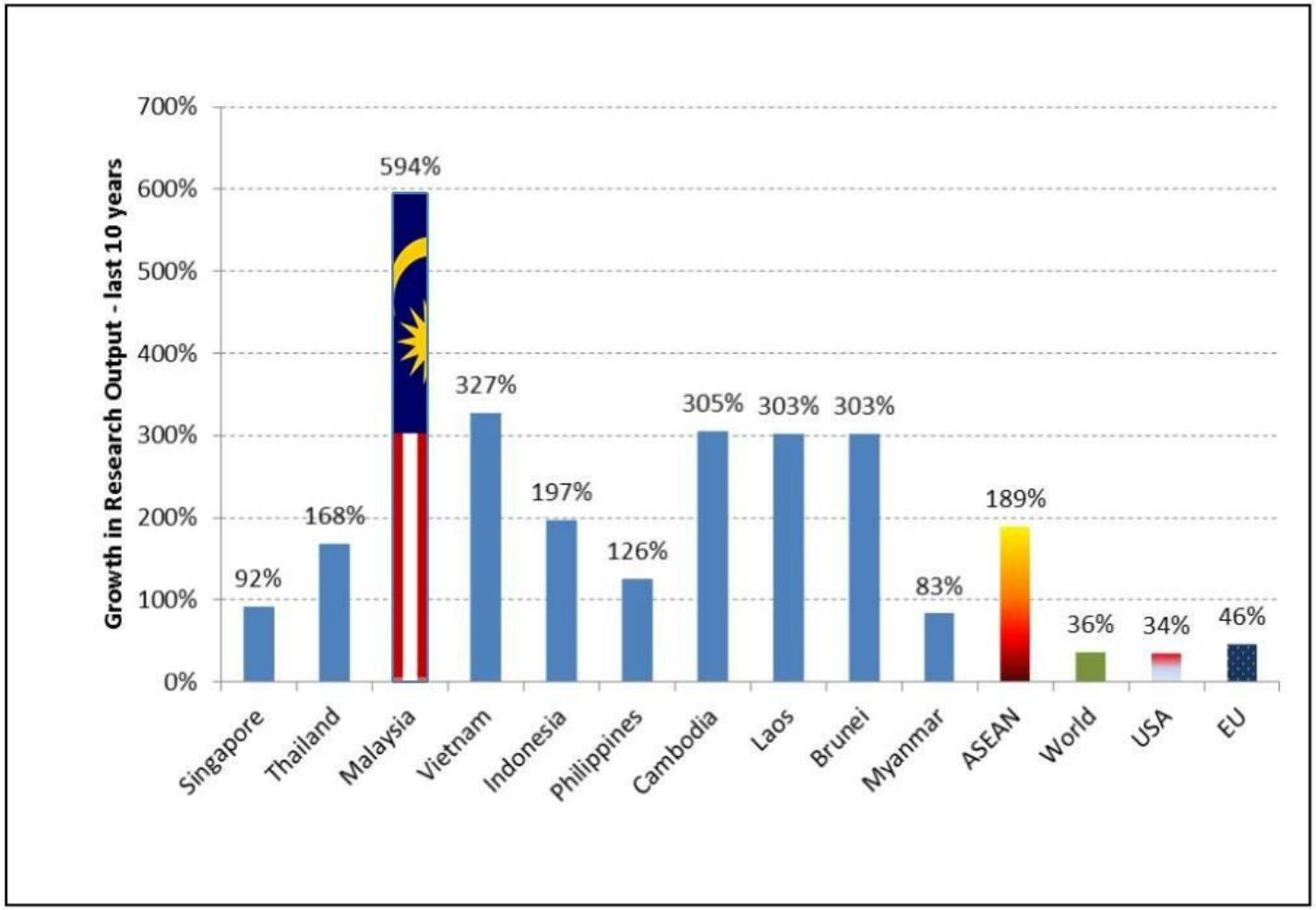
- YBhg. Prof. Dr. Muhamad bin Jantan (USM) – Pengerusi
- YBhg. Dato' Prof. Emeritus Dr. Md. Ikram bin Mohd. Said (UKM)
- YBhg. Dato' Prof. Emeritus Dr. Muhamad bin Yahaya (UKM)
- YBhg. Dato' Prof. Dr. Mohd. Jamil bin Maah (UM)
- YBhg. Prof. Dr. Samsudin bin A. Rahim (UKM)

KLASIFIKASI KOD 1 INSTITUSI PENGAJIAN AWAM 2 INSTITUSI PENGAJIAN SWASTA

Publication 1996-2015



Malaysia's Publication Growth 2005-2014



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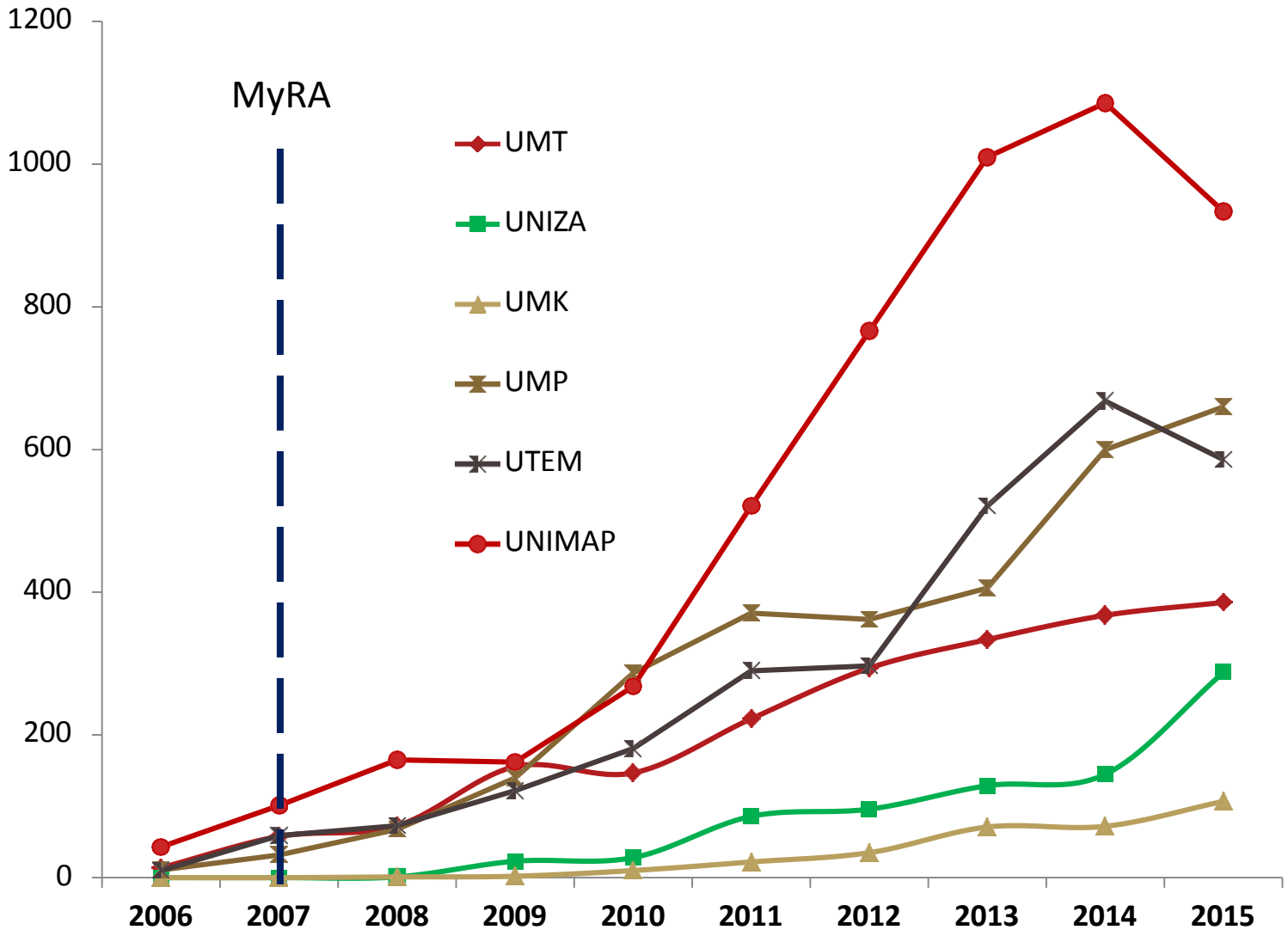
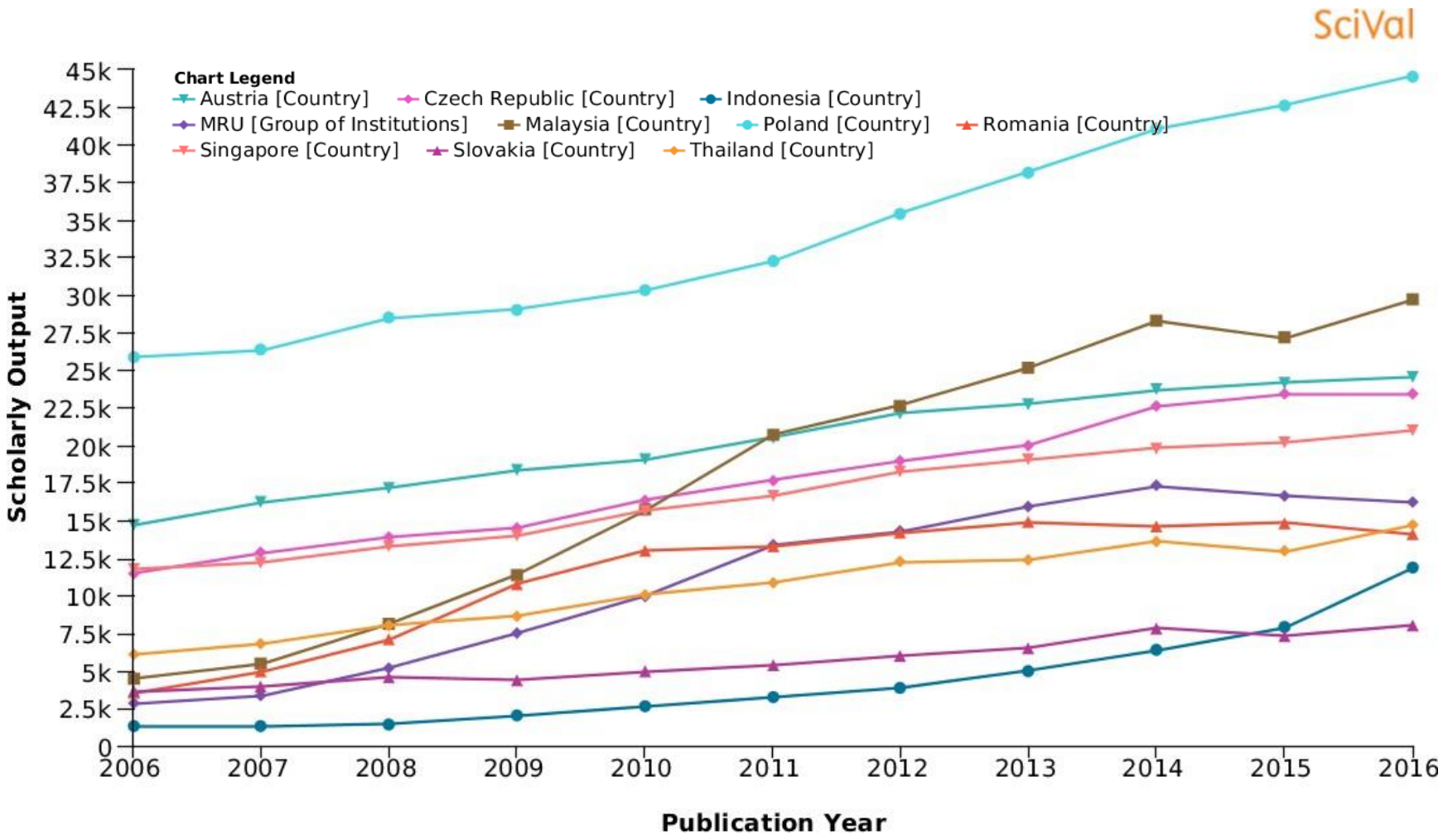
Source : Thompson Reuter 2014

Post MyRA SCOPUS Publication 2006-15 for new universities

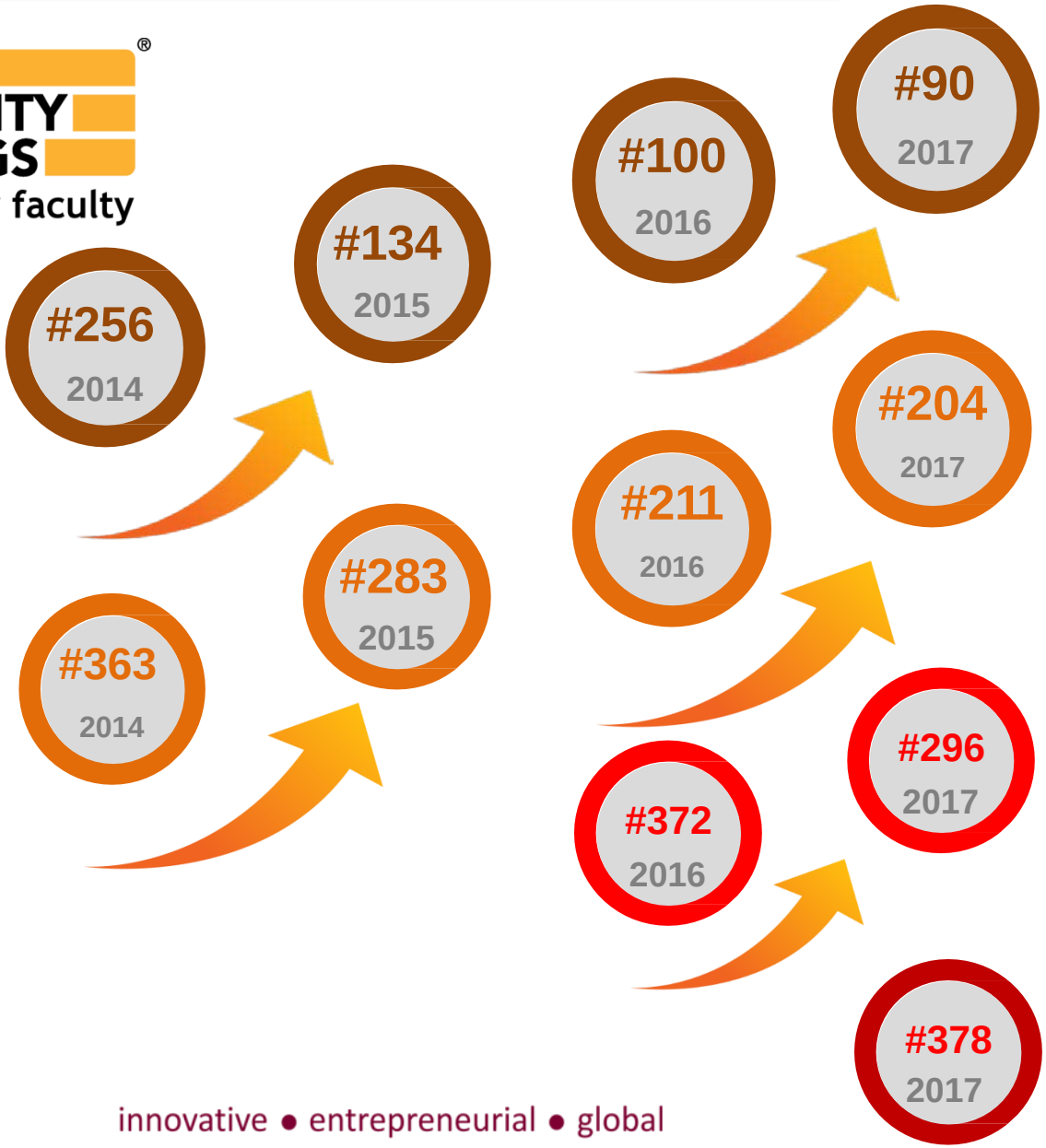


Comparison SCOPUS Publication 2006-2016



Effect of MyRA on UTM

QS WORLD UNIVERSITY RANKINGS by faculty



- Comparatively with Europe, MyRA is excessively high
  - in setting the indicators
  - Annual assessment
- Works as a capacity building tool where
  - >70% academic staff has no postdoctoral experience
  - It works with the competitive nature of the Asian psyche
  - It serves an initial tool to build the research momentum, to be evolved into a smarter assessment tool later
- Can be improved in many ways by learning from France (e.g administrative research), Poland (e.g national publication index), UK (e.g impact studies) etc

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Thank You

innovative ● entrepreneurial ● global