

BEST UNIVERSITIES 2020 SOUTHEAST ASIA RANKING



1			NANYANG TECHNOLOGICAL UNIVERSITY
2			NATIONAL UNIVERSITY OF SINGAPORE
3			UNIVERSITI OF MALAYA
4			UNIVERSITI PUTRA MALAYSIA
5			UNIVERSITI KEBANGSAAN MALAYSIA
6			UNIVERSITI SAINS MALAYSIA
7			UNIVERSITI TEKNOLOGI MALAYSIA
8			CHULALONGKORN UNIVERSITY
9			UNIVERSITAS INDONESIA
10			UNIVERSITI BRUNEI DARUSSALAM
11			MAHIDOL UNIVERSITY
12			UNIVERSITAS GADJAH MADA
13			INSTITUT TEKNOLOGI BANDUNG
14			UNIVERSITY OF THE PHILIPPINES
15			UNIVERSITI TEKNOLOGI BRUNEI

DEFINING A RESEARCH UNIVERSITY

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HUMBOLDTIAN ROOTS



Wilhelm von Humboldt (1767 – 1835)

Just as primary instruction makes the teacher possible, so he renders himself dispensable through schooling at the secondary level. The university teacher is thus no longer a teacher and the student is no longer a pupil. Instead **the student conducts research on his own behalf and the professor supervises his research and supports him in it.** Because learning at university level places the student in a position to apprehend the unity of scholarly enquiry and thereby lays claim to his creative powers.

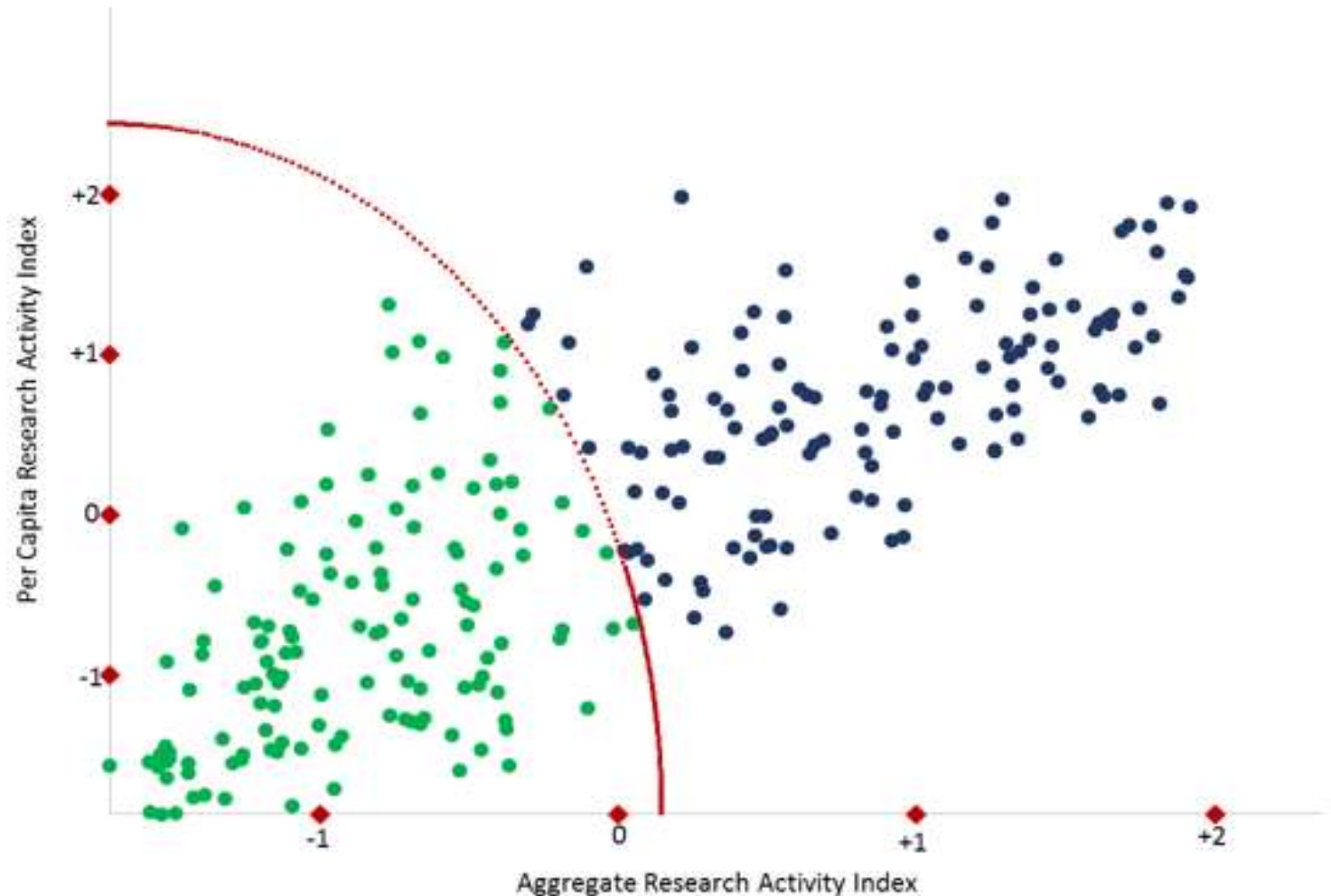
Humboldt as quoted by Clark (2007), p. 333

THE CARNEGIE CLASSIFICATION OF INSTITUTIONS OF HIGHER EDUCATION

R1 and R2 Doctoral Universities

- ❑ Awarded at least 20 research/scholarship doctoral degrees during the update year
- ❑ At least \$5 million in total annual research expenditures (~PhP260M)
- ❑ R1: Very high research activity
R2: High research activity

Research Activity Index Results Based on Rank-order Data



MALAYSIAN RESEARCH UNIVERSITIES

Table 1.3: The Scoring Criteria for the Selection of a Research University (MyRA)

NO	CRITERIA	Weightage
1.	General Information	-
2.	Quantity and Quality of Researchers	15
3.	Quantity and Quality of Research	35
4.	Quantity and Quality of Postgraduates	10
5.	Innovation	15
6.	Professional Services and Gifts	10
7.	Networking and Linkages	12
8.	Support Facilities	3
TOTAL		100 %

Source: <https://www.kpims.usm.my/v2/?p=myra-criteria>

1. Quantity and quality of researchers

Criteria	RU	World class RU
Critical mass	60% of academic staff will be involved as Principal Investigator	85% of academic staff will be involved as Principle investigator
Percentage of academic staff with PhD or equivalent	60%	95%
Research Experience (3 cohorts)	With balanced distribution of staff with >20 yrs experience, 10-20 yrs and <10 yrs experience	With 60% distribution of staff with >20 yrs experience, 20% with 10-20 yrs and 20% with <10 yrs experience
Number of recognitions/ awards/stewardship conferred by national and international learned and professional bodies	100	500

2. Quantity and Quality of Research

Criteria	RU	World Class RU
Publications	2 papers in national/international refereed and cited journals per staff/yr or cumulative impact factor for the institution of not less than 500	5 papers in national/international refereed and cited journals per staff/yr or cumulative impact factor for the institution of not less than 5000
Research grants for S&T academic staff	At RM 50,000/staff/yr of which at least 20% is from international sources and 20% from private sector	At RM 1,000,000/staff/yr of which at least 40% is from international sources and 40% from private sector
<ul style="list-style-type: none"> a. Public b. Private (including contract research) c. International 		
Research expenditure	Should not be less than 60% of grants attained/yr	Should not be less than 70% of grants attained/yr
Post-docs appointed	10/yr	1 post-doc per academic staff

3. Quantity of postgraduates

Criteria	RU	World Class RU
Ratio of PhDs graduated to academic staff	1:18 academic staff of which 60% will be from S&T	1:3 academic staff of which 80% will be from S&T
Ratio of Postgraduates to academic staff (enrolment)	3 PG : 1 staff	5 PG : 1 staff
Ratio of postgraduates (based on research and mixed mode*) to undergraduates	1 postgraduate:4 undergraduates	4 postgraduates: 6 undergraduates (1:1.5)
Percentage of international postgraduates	10%	15%

*Mixed mode is defined as not >70% research and not >30% coursework

4. Quality of postgraduates

Criteria	RU	World Class RU
Percentage postgraduate intake	50% of postgraduates with CGPA \geq 3.0	50% of postgraduates with CGPA \geq 3.25
Percentage of postgraduate fellowships/grants from prestigious bodies awarded to postgraduates via research mode	Not less than 10%	Not less than 20%

6. Professional Services and Gifts

Criteria	RU	World Class RU
Income generated from training courses/ services/consultancy/ post-graduate student fees/endowment/gifts	Not less than RM 20 million/yr	Not less than RM 600 million/yr

7. Networking and linkages

Criteria	RU	World Class RU
Inter-institution (national) participation	70%	50%
Inter-institution (international) participation	30%	50%

8. Support facilities

Criteria	RU	World Class RU
Equipment fully operational and calibrated or physical facilities that meet safety and quality standards (accreditation to GLP/ISO17025) or library facilities (min 1 mil titles) or supporting facilities including networking and shared facilities or service centres or recreational centres or access to high end research facilities	On site auditing 75% compliance attained	On site auditing 95% compliance attained

5. Innovation

Criteria	RU	World Class RU
Number of patents attained/number of products commercialized/ number of technology know-how licensing/ number of IPR/copyrights (including original writings)	30/yr	100/yr

Decisions on Staff and Outputs & Impact Case Studies

Staff	Outputs	Impact Case Studies
<p>Eligible staff are those on a Teaching & Research or Research Only (excluding Research Assistants) with minimum fte of 0.2</p>	<p>Average number of outputs required per FTE is 2.5</p>	<p>Submissions must include a minimum of 2 Impact Case Studies</p>
<p>Submitted staff are eligible staff with a Significant Responsibility for Research</p>	<p>Minimum of 1 output per staff member submitted</p>	
	<p>Maximum of 5 outputs per staff member submitted (does not preclude the inclusion of additional co-authored outputs if attributed to others).</p>	<p>Submissions must include 1 case study plus 1 further case study per 15 FTE staff returned</p>

REF2014
Research Excellence Framework

The research of **154**
UK universities was assessed



They made **1,911** submissions including:

- **52,061** academic staff
- **191,150** research outputs
- **6,975** impact case studies

The **overall quality** of submissions was judged, on average to be:

★★★★ **30%** world-leading (4*)

★★★ **46%** internationally excellent (3*)

★★ **20%** recognised internationally (2*)

★ **3%** recognised nationally (1*)



World University Rankings: Methodology

What information is collected, and how is this used to compile the ranking?



Academic reputation

Based on a global survey of academics



Employer reputation

Based on a global survey of graduate employers



Faculty/student ratio

An indication of commitment to teaching



Citations per faculty

An indication of research impact



International student ratio

Measuring international diversity of the student community



International staff ratio

Measuring international diversity of the academic faculty



Teaching

(the learning environment)



Reputation survey
15%

Staff-to-student ratio
4.5%

Doctorate-to-bachelor's ratio
2.25%

Doctorates-awarded-to-academic-staff ratio
6%

Institutional income
2.25%

Research

(volume, income and reputation)



Reputation survey
18%

Research income
6%

Research productivity
6%

Citations

(research influence)



International outlook

(staff, students, research)



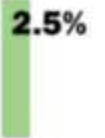
International-to-domestic-student ratio
2.5%

International-to-domestic-staff ratio
2.5%

International collaboration
2.5%

Industry income

(knowledge transfer)



www.thewur.com

The calculation of the Times Higher Education World University Rankings has been subject to independent audit by professional services firm PricewaterhouseCoopers (PwC)

For more information on the methodology and the PwC audit, visit www.thewur.com/methodology-2017

5.3.3. *Universities* are operationally defined as follows:

- The presence of graduate students manifests the training of experts, who will be involved in professional practice and/or discovery of new knowledge.

- Academic degree programs should be comprehensive and manifest the pursuit of new knowledge

- There are at least *twenty (20)* academic degree programs with enrollees, at least six of which is at the graduate level.

- There is at least one doctoral program in *three* different fields of study (disciplines or branches of knowledge) with enrollees.

- For purposes of this CMO, a branch of knowledge refers to a group of disciplines with similar objects of study, frames of reference and methodological approaches. Disciplines, on the other hand, are areas of study “constituted by defined academic research methods and objects of study, frames of reference, methodological approaches, topics, theoretical canons, and technologies. They can also be seen as “sub cultures” with their own language, concepts, tools and credentialed practitioners”. Fields of study, refers to recognized areas of specialization within a discipline.

- Given this definition, the comprehensiveness of a university may be gauged from the existence of programs representing a range of disciplines in different branches of knowledge; different disciplines within a branch of knowledge; or different recognized fields of study within a discipline;

- This criterion allows for a specialized university whose comprehensiveness is reflected in the range of fields within a discipline or branch of knowledge rather than in the number of disciplines in different branches of knowledge.

- All graduate programs and at least *50%* of baccalaureate programs require the submission of a thesis/project/or research papers.

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CMO 46, S. 2012

Enrollees vs.
graduates

- There should be a core of permanent faculty members. By 2014, all full-time permanent faculty members and researchers have the relevant degrees as required by CHED or its equivalent in exceptional cases as stated in Section 5.1.3.3. All faculty members teaching in the doctoral programs have doctoral degrees. All other faculty should have the relevant degrees, professional licenses (for licensed programs), and/or relevant experience in the subject areas they handle.
- At least *thirty (30) full-time faculty* members or 20% of all full-time faculty, whichever is higher, are actively involved in research.
- Any one of these conditions:
 - Annual research cost expenditure for the past five years is equivalent to at least PHP75,000 x the number of faculty members involved in research⁴; or
 - At least 5% of full-time faculty members engaged in research have patents, articles in refereed journals, or books published by reputable presses in the last ten years⁵
- Comprehensive learning resources and support structures allow students to explore basic, advanced, and even cutting edge knowledge in a wide range of fields of study/disciplines or professions.
- Links with other research institutions in various parts of the world ensure that the research activities of the university are functioning at the current global standards.
- Outreach activities allow the students, faculty, and research staff to apply the new knowledge they generate to address specific social development problems, broadly defined.
- These minimum requirements for Universities—particularly the numbers and percentages pertaining to academic degree programs, faculty, and costs—should be reviewed by 2017, to see if these are responsive to the development needs of the country.

Small minority of
faculty engaged
in research

Criteria	Points	Percentage
II.1 Educational qualifications	85	42.5
II.2 Experience and professional services	25	12.5
II.3 Professional Development Achievement and Honors	90	45.0
Total	200	100.0
II.3.1 Innovations, patented inventions, publications and other creative works	30	15.0



3. Professional Development Achievement and Honors.....90 pts.

3.1 Innovations, patented inventions, publications and other creative works
(maximum of 30 pts.)

3.1.1 For every cost and time saving..... 1 to 7
innovation, patented invention
and creative work as well as
discovery of an educational ,
technical, scientific and/or
cultural value

Frederick So. Pada
FREDERICK SO. PADA
President, PASUC

Angel C. Alcala
ANGEL C ALCALA
Chairman, CHED
Red *Red*

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KRA 2. Research Capability and Output	14
1. Research Center including percentage of researchers to total plantilla faculty in the past three years	3
a. Number of research centers actively pursuing research in the past three years	1
2 and above	1
1	0.5
b. Percentage of Researchers to total number of plantilla faculty in the past three (3) years	2
40% and above	2
30% to 39%	1.5
20% to 29%	1
10% to 19%	0.5
1% to 9%	0.25
2. Externally Funded Research	2
Each research funded by outside agency in the past three years	2
Per Program	1
Per Project (<i>not part of a program</i>)	0.75
Per Study (<i>not part of a project</i>)	0.5

3. Completed Research-based Paper Published in the past three (3) years (such as Elsevier Scopus, Thomson Reuters Journals, and CHED Accredited Journal)	3.5
a. Research-based paper published in an International Refereed Journal or publication in the past three (3) years	1.5
12 and above	1.5
9 to 11	1
6 to 8	0.75
3 to 5 points	0.5
1 to 2 points	0.25
b. Research-based paper published in a Refereed Journal Accredited by CHED in the past three (3) years	1
12 and above	1
9 to 11	0.75
6 to 8	0.5
3 to 5	0.25
1 to 2	0.125

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c. Percentage of research-based paper published in refereed journals to the total number of research output	1
20% and above	1
15% to 19%	0.75
10% to 14%	0.5
5% to 9%	0.25
4. Research-based Paper Presented in the past three years	3
a. Number of research-based paper presented in International fora/conferences	1
11 and above	1
6 to 10	0.75
1 to 5	0.50
b. Number of research-based paper presented in National fora/ conferences	0.5
15 and above	0.5
9 to 14	0.25
3 to 8	0.125

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TABLE 3. MINIMUM POINTS REQUIRED FOR UNIVERSITIES

Legend: () = No minimum points*

KEY RESULT AREA (KRA)	MAXIMUM POINTS	MINIMUM POINTS PER LEVEL			
		V	IV	III	II
1. Quality and Relevance of Instruction	16	14	11	8	5
2. Research Capability and Output	14	13	10	7	4
3. Services to the Community	14	*	*	*	*
4. Management of Resources	7	*	*	*	*
TOTAL	51	42	33	24	15

Note: No minimum point is assigned to KRA 3 and KRA 4 for universities as emphasis is given to KRA 2

**WORLD CLASS
RESEARCH OUTPUT
(MAXIMUM OF 1.5
PTS OUT OF 14 OR
10.7%)**

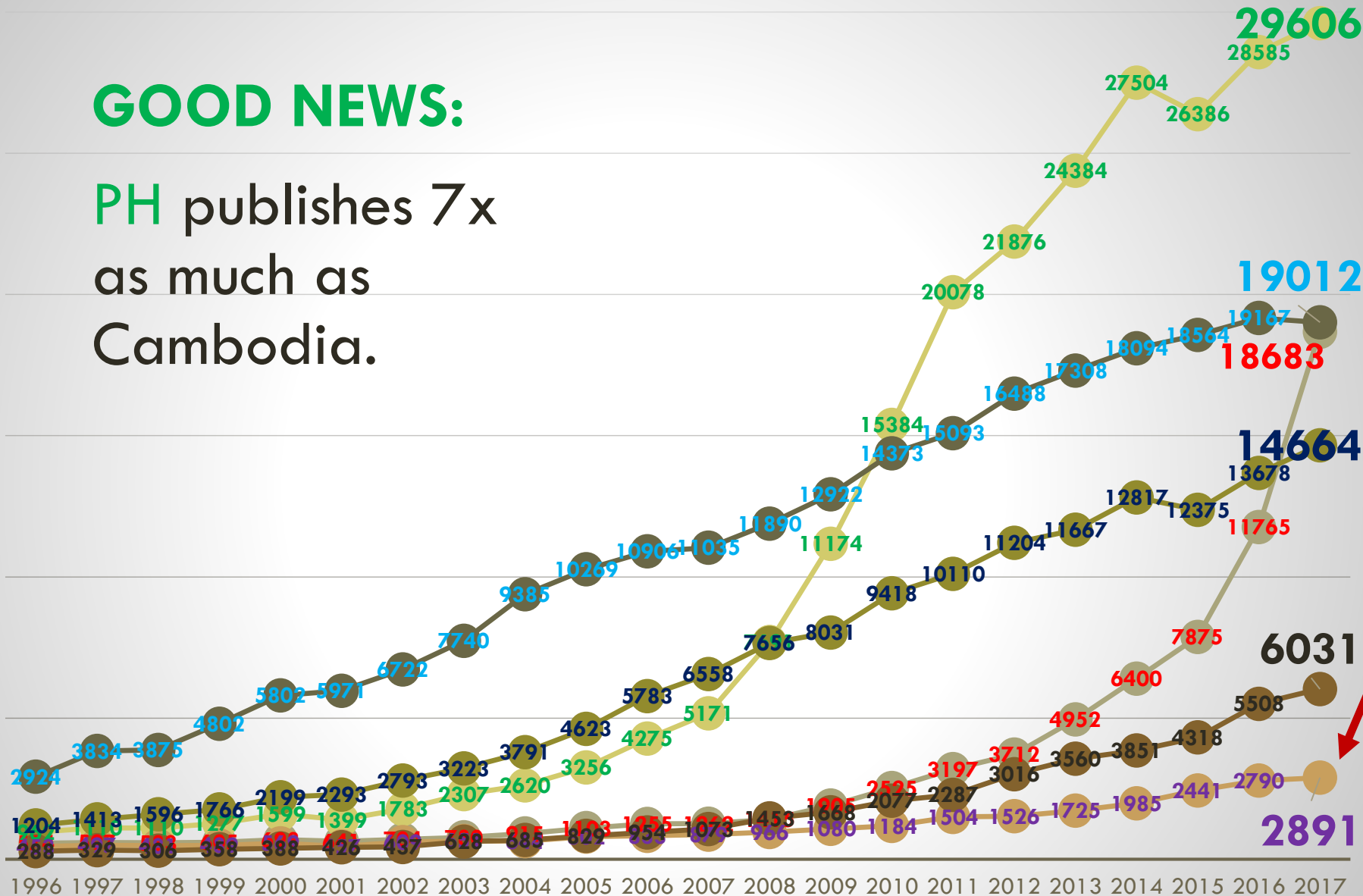
No. of Citable Documents by ASEAN Country: 1996-2017

GOOD NEWS:

PH publishes 7x
as much as
Cambodia.

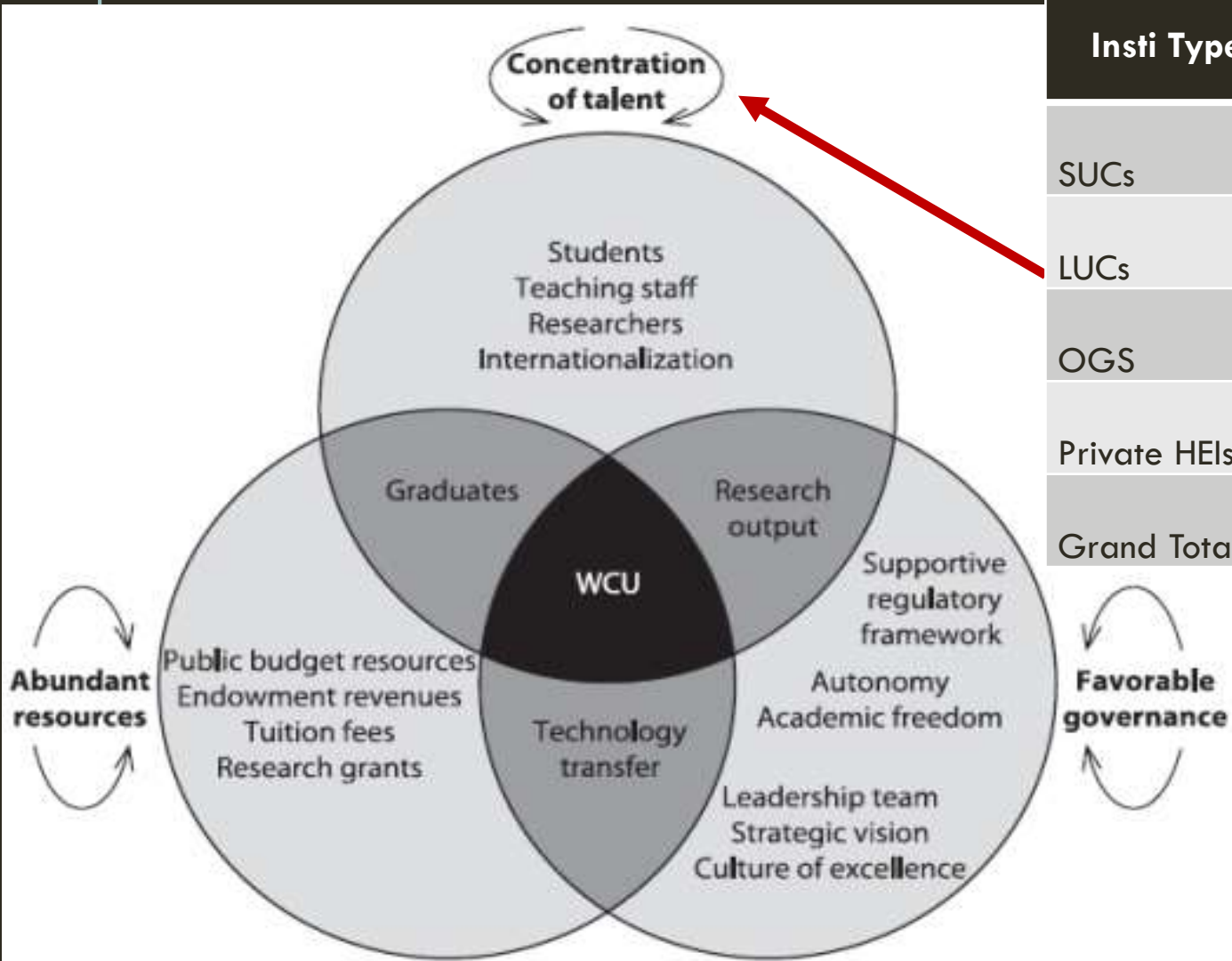
**LOW
PUBLICATION
OUTPUT**

Vietnam
publishes twice
as much as the
Philippines.
Malaysia
publishes ten
times as much.



● Indonesia ● Malaysia ● Philippines ● Singapore ● Thailand ● Viet Nam

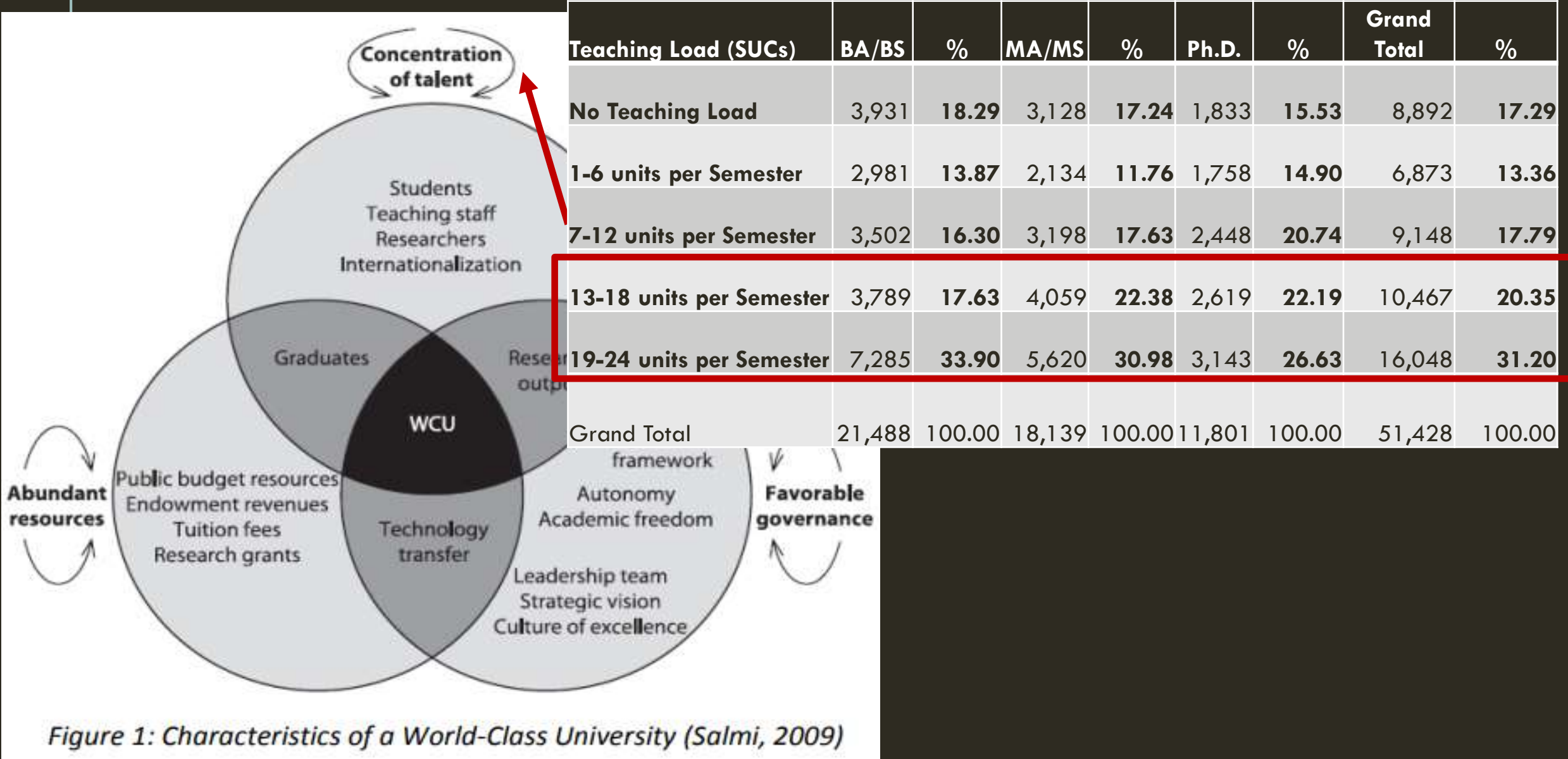
A RESEARCH UNIVERSITY IS A WCU.



Insti Type	BS/BA	%	MA/MS	%	Ph.D.	%	Total
SUCs	21,488	15.78	18,139	13.32	11,801	8.67	51,428
LUCs	3,793	2.79	2,591	1.90	769	0.56	7,153
OGS	182	0.13	189	0.14	61	0.04	432
Private HEIs	36,935	27.12	30,282	22.24	9,956	7.31	77,173
Grand Total	62,398	45.82	51,201	37.60	22,587	16.59	136,186

Figure 1: Characteristics of a World-Class University (Salmi, 2009)

A RESEARCH UNIVERSITY IS A WCU.



THANK YOU VERY MUCH.

MARAMING SALAMAT.

DAGHANG SALAMAT.