INNOVATIVE UNIVERSITIES

The World's Universities with Real Impact (WURI) Ranking 2021

From Survive to Thrive

Hwy-Chang MOON, Ph.D.

Professor Emeritus, Seoul National University Founding Director, The WURI Ranking

Table of Contents



The New Ranking: Importance and Methodology

The Rankings of Innovative Universities

Cases and Implications

Conclusion

Serious Challenges for Higher Education

The 4th industrial revolution (e.g., Artificial Intelligence)

From intellectual curiosity to practical education

The coronavirus (COVID-19) pandemic

From offline to online education

Post Covid-19: Back to normal or new normal?

Universities need a different approach.

Problems with Existing Models for University Evaluation

Existing Models

- THE World University Rankings (Times Higher Education, UK)
- QS World University Rankings (Quacquarelli Symonds, UK)
- Academic Ranking of World Universities (Shanghai Ranking Consultancy, China)
- US News Best Global Universities Rankings (US News, US)
- World's Most Innovative Universities (Reuters, UK)

Common Problems

- Uniform set of criteria for traditional research and teaching
 - Disadvantage to universities with special visions and objectives
- Research and fund-based capabilities
 - ⇔ Disadvantage to small and young universities
- Over-dependence on past numerical data
 - ⇔ Disadvantage to future-oriented innovative universities

A New Approach: Real Impacts on the World

Industrial applications

rather than the traditional ways of counting research papers and lecture-type teaching.

Entrepreneurial spirit and value-creating startups

rather than a traditional focus on the number of jobs filled.

Ethical value and social responsibility

rather than a focus on knowledge and skills just for material success.

Student mobility and openness

rather than an independent yet closed system.

Crisis management

thrive rather than just to survive.

The Criteria for Evaluation

	Innovativeness	Implementability	Impact
(1) Industrial application			
(2) Entrepreneurial spirit			
(3) Ethical value			
(4) Student mobility & openness			
(5) Crisis management			

- Content
- Process
- Cost
- Benefit

- Scope
- Intensity

The Process of Evaluation

Phase 1: Evaluation

- Date: By May 2, 2021
- Presidents or the school's evaluation team designated by the president

Phase 2: Judgment

- Date: By May 23, 2021
- Representatives of the university leagues and the members of the WURI Evaluation Board

Phase 3: Final Review

- Date: By June 3, 2021
- WURI Evaluation Board <u>aggregated</u> the recommendations of the Judges, <u>checked</u> the reliability of the contents in the submitted applications, and <u>finalized</u> the entries in the Innovative Universities of the WURI Ranking 2021.

Table of Contents

The New Ranking: Importance and Methodology



The Rankings of Innovative Universities

Cases and Implications

Conclusion

The WURI Ranking 2021

To be presented at the online conference

- Top 50 in each of the five categories
- Global Top 100

To be uploaded on the WURI website (www.wuri.world)

- Top 50 in each of the five categories
- Global Top 100
- Global Top 101-200, 201-300
- Presentation slides
- Other information
- Q&A section (www.wuri.world, top100@wuri.world)

Top 50 Five Categories

WURI 2021: Top 50 (Industrial Application)

Rank	Name	Region	Rank	Name	Region
1	Minerva Schools at Keck Graduate Institute	USA	26	Charles Darwin University	Australia
2	Massachusetts Institute of Technology	USA	27	Kunjang University College	Korea, Rep.
3	California Institute of Technology	USA	28	Sakarya University	Turkey
4	Stanford University	USA	29	Deggendorf Institute of Technology	Germany
5	Arizona State University	USA	30	Seoul Institute of the Arts	Korea, Rep.
6	University of Oxford	UK	31	Northwestern University	USA
7	Tsinghua University	China	32	Hong Kong University of Science and Technology	Hong Kong SAR, China
8	University of California, Merced	USA	33	Universitas Amikom Yogyakarta-MSV Studio	Indonesia
9	Incheon National University	Korea, Rep.	34	ICFAI University	India
10	Olin College of Engineering	USA	35	Hanbat National University	Korea, Rep.
11	Cheung Kong Graduate School of Business	China	36	University of Antwerp	Belgium
12	University of Cambridge	UK	37	Seoul School of Integrated Sciences & Technologies	Korea, Rep.
13	Singularity University	USA	38	Brighton and Sussex Medical School	UK
14	University of Technology Sydney	Australia	39	University of Pretoria	South Africa
15	Kyoto University	Japan	40	Bucharest University of Economic Studies	Romania
16	University of Gothenburg	Sweden	41	CENTRUM PUCP Business School	Peru
17	Burapha University	Thailand	42	Western Sydney University	Australia
18	Ohio State University	USA	43	University of Delhi	India
19	Tampere University	Finland	44	American University of Ras Al Khaimah	UAE
20	Belgorod State National Research University	Russia	45	University of Twente	Netherlands
21	Simon Fraser University	Canada	46	Murdoch University	Australia
22	Franklin University Switzerland	Switzerland	47	University of Warwick	UK
23	Griffith University	Australia	48	Norwegian University of Science and Technology	Norway
24	Chungwoon University	Korea, Rep.	49	McMaster University	Canada
25	Hankuk University of Foreign Studies	Korea, Rep.	50	RMIT University	Australia

WURI 2021: Top 50 (Entrepreneurial Spirit)

Rank	Name	Region	Rank	Name	Region
1	Hanze University of Applied Sciences	Netherlands	26	National University of Management	Cambodia
2	Aalto University	Finland	27	Arizona State University	USA
3	Simon Fraser University	Canada	28	University of Liberal Arts Bangladesh	Bangladesh
4	Princeton University	USA	29	Ajou University	Korea, Rep.
5	Deggendorf Institute of Technology	Germany	30	Samsung Art and Design Institute	Korea. Rep.
6	University of California, Berkeley	USA	31	Riga Technical University	Latvia
7	University of Chicago	USA	32	Burapha University	Thailand
8	University of Tokyo	Japan	33	Toyota Technological Institute	Japan
9	Monash University	Australia	34	University of Évora	Portugal
10	George Mason University	USA	35	Athens University of Economics and Business	Greece
11	University of Oulu	Finland	36	Dublin City University	Ireland
12	Instituto Politécnico de Bragança	Portugal	37	Bucharest University of Economic Studies	Romania
13	Temple University	USA	38	University of Wollongong	Australia
14	University of Twente	Netherlands	39	University of Catania	Italy
15	University of Basel	Switzerland	40	University of Aveiro	Portugal
16	Indira Gandhi Delhi Technical University for Women	India	41	Dalian Neusoft University of Information	China
17	Tra Vinh University	Vietnam	42	Far Eastern University	Philippines
18	Kyushu University	Japan	43	Hanbat National University	Korea, Rep.
19	Northern Kentucky University	USA	44	LSPR Communication & Business Institute	Indonesia
20	Beijing Technology and Business University	China	45	Anna University	India
21	Rensselaer Polytechnic Institute	USA	46	Universiti Kuala Lumpur	Malaysia
22	Queen's University	Canada	47	Chitkara University	India
23	IEDC-Bled School of Management	Slovenia	48	Singapore Management University	Singapore
24	FEU Institute of Technology	Philippines	49	Foundry College	USA
25	Draper University	USA	50	Linnaeus University	Sweden

WURI 2021: Top 50 (Ethical Value)

Rank	Name	Region	Rank	Name	Region
1	Ecole 42	France	26	James Cook University	Australia
2	University of Pennsylvania	USA	27	Lac Hong University	Vietnam
3	Harvard University	USA	28	Rutgers University	USA
4	Florida State University	USA	29	La Trobe University	Australia
5	Franklin University Switzerland	Switzerland	30	Flinders University	Australia
6	Columbia University	USA	31	Chungbuk National University	Korea, Rep.
7	University College London	UK	32	Murdoch University	Australia
8	Duke University	USA	33	MIT World Peace University	India
9	Yale University	USA	34	Dublin City University	Ireland
10	Ajou University	Korea, Rep.	35	Hanbat National University	Korea, Rep.
11	Badr University in Cairo	Egypt	36	IEDC-Bled School of Management	Slovenia
12	University College Dublin	Ireland	37	National University of Management	Cambodia
13	Telkom University	Indonesia	38	St. Paul University Philippines	Philippines
14	University of Lincoln	UK	39	University of Liberal Arts Bangladesh	Bangladesh
15	Florida Gulf Coast University	USA	40	CENTRUM PUCP Business School	Peru
16	Far Eastern University	Philippines	41	Guru Nanak Dev University, Amritsar	India
17	Monash University	Australia	42	University of Waterloo	Canada
18	Seoul School of Integrated Sciences & Technologies	Korea, Rep.	43	International University of Business Agriculture & Technology	Bangladesh
19	Cranfield University	UK	44	Norfolk State University	USA
20	Kyungpook National University	Korea, Rep.	45	Luther University	Korea, Rep.
21	University of Split	Croatia	46	Universitas Amikom Yogyakarta-MSV Studio	Indonesia
22	Maharanis Cluster University	India	47	Stanford University	USA
23	Griffith University	Australia	48	University of California, Santa Barbara	USA
24	University of the People	USA	49	University of Ljubljana School of Economics and Business	Slovenia
25	Instituto Politécnico de Bragança	Portugal	50	Kaunas University of Technology	Lithuania

WURI 2021: Top 50 (Student Mobility and Openness)

Rank	Name	Region	Rank	Name	Region
1	Boston University	USA	26	Seoul School of Integrated Sciences & Technologies	Korea, Rep.
2	National University of Singapore	Singapore	27	Toyota Technological Institute	Japan
3	Seoul National University	Korea, Rep.	28	Telkom University	Indonesia
4	Peking University	China	29	University of International Business and Economics	China
5	University of Copenhagen	Denmark	30	University of Denver	Canada
6	Abdullah Gül University	Turkey	31	Morgan State University	USA
7	Free University of Berlin	Germany	32	Charles Darwin University	Australia
8	Sussex University	UK	33	La Trobe University	Australia
9	Flinders University	Australia	34	Universiti Kuala Lumpur	Malaysia
10	University of Bonn	Germany	35	Murdoch University	Australia
11	Northern Arizona University	USA	36	Kyungpook National University	Korea, Rep.
12	RWTH Aachen University	Germany	37	Soran University	Iraq
13	Hankuk University of Foreign Studies	Korea, Rep.	38	Millsaps College	USA
14	Beijing Normal University	China	39	Tarlac Agricultural University	Philippines
15	Sarah Lawrence College	USA	40	Dalian Neusoft University of Information	China
16	Trinity College	USA	41	CENTRUM PUCP Business School	Peru
17	Kansai University	Japan	42	University of Vlorë "Ismail Qemali"	Albania
18	Aix-Marseille University	France	43	Washington State University	USA
19	Florida Gulf Coast University	USA	44	Griffith University	Australia
20	Incheon National University	Korea, Rep.	45	LSPR Communication & Business Institute	Indonesia
21	Chungwoon University	Korea, Rep.	46	Chulalongkorn University	Thailand
22	University of Vienna	Austria	47	Seoul Institute of the Arts	Korea, Rep.
23	Monash University	Australia	48	Tra Vinh University	Vietnam
24	Badr University in Cairo	Egypt	49	University of Illinois at Urbana-Champaign	USA
25	Hamburger University	USA	50	Connecticut University	USA
			50	EBS Universität für Wirtschaft und Recht	Germany

WURI 2021: Top 50 (Crisis Management)

Rank	Name	Region	Rank	Name	Region
1	Burapha University	Thailand	26	Biliran Province State University	Philippines
2	Abdullah Gül University	Turkey	27	University of Liberal Arts Bangladesh	Bangladesh
3	Florida Gulf Coast University	USA	28	King Mongkut's Institute of Technology Ladkrabang	Thailand
4	Franklin University Switzerland	Switzerland	29	Ajou University	Korea, Rep.
5	Belgorod State National Research University	Russia	30	Massachusetts Institute of Technology	USA
6	Instituto Politécnico de Bragança	Portugal	31	Sakarya University	Turkey
7	Deggendorf Institute of Technology	Germany	32	University of South Florida	USA
8	Fatima Jinnah Women University	Pakistan	33	National University of Management	Cambodia
9	Afeka – Tel-Aviv Academic College of Engineering	Israel	34	IEDC-Bled School of Management	Slovenia
10	National Dong Hwa University	Taiwan	35	Ivy Tech Community College	USA
11	The University of the South Pacific	Fiji	36	OP Jindal Global Univerisity	India
12	Far Eastern University	Philippines	37	Telkom Institute of Technology Purwokerto	Indonesia
13	Telkom University	Indonesia	38	Chung-Ang University	Korea, Rep.
14	Cebu Normal University	Philippines	39	Badr University in Cairo	Egypt
15	Saint-Joseph University of Beirut	Lebanon	40	Hankuk University of Foreign Studies	Korea, Rep.
16	Indian Institute of Technology Gandhinagar	India	41	Hanze University of Applied Sciences	Netherlands
17	Incheon National University	Korea, Rep.	42	Arizona State University	USA
18	Alexandria University	Egypt	43	Temple University	USA
19	University of Babylon	Iraq	44	KU Leuven	Belgium
20	University of Padua	Italy	45	Hong Kong Baptist University	Hong Kong SAR, China
21	Seoul Institute of the Arts	Korea, Rep.	46	Ajman University	UAE
22	King Edward Medical University, Lahore	Pakistan	47	Eckerd College	USA
23	Staffordshire University	UK	48	LSPR Communication & Business Institute	Indonesia
24	Chulalongkorn University	Thailand	49	Sanskriti University	India
25	Dalian Neusoft University of Information	China	50	Atma Jaya Catholic University of Indonesia	Indonesia

Global Top 100

WURI 2021: Global Top 100 Innovative Universities (1-50)

Rank	Name	Region	Rank	Name	Region
1	Massachusetts Institute of Technology	USA	26	Incheon National University	Korea, Rep.
2	Stanford University	USA	27	Abdullah Gül University	Turkey
3	Minerva Schools at Keck Graduate Institute*	USA	28	Peking University	China
4	Arizona State University	USA	29	Deggendorf Institute of Technology	Germany
5	Hanze University of Applied Sciences	Netherlands	30	University of Twente	Netherlands
6	University of Pennsylvania	USA	31	Florida State University	USA
7	California Institute of Technology	USA	32	Northern Arizona University	USA
8	Harvard University	USA	33	Cheung Kong Graduate School of Business*	China
9	Aalto University	Finland	34	Ohio State University	USA
10	Ecole 42**	France	35	Flinders University	Australia
11	University of California, Berkeley	USA	36	Beijing Normal University	China
12	Princeton University	USA	37	Sussex University	UK
13	National University of Singapore	Singapore	38	Yale University	USA
14	Tsinghua University	China	39	University of Copenhagen	Denmark
15	Boston University	USA	40	Kyoto University	Japan
16	Seoul National University	Korea, Rep.	41	Franklin University Switzerland	Switzerland
17	University of Oxford	UK	42	Sarah Lawrence College	USA
18	University of Cambridge	UK	43	University of Bonn	Germany
19	Duke University	USA	44	University of Technology Sydney	Australia
20	Olin College of Engineering*	USA	45	Free University of Berlin	Germany
21	University of Chicago	USA	46	Trinity College	USA
22	University of California, Merced	USA	47	Hankuk University of Foreign Studies	Korea, Rep.
23	Columbia University	USA	48	University College Dublin	Ireland
24	Simon Fraser University	Canada	49	University of Tokyo	Japan
25	Singularity University**	USA	50	University of Gothenburg	Sweden

^{*} boutique universities with degree programs

^{**} boutique universities with non-degree programs

WURI 2021: Global Top 100 Innovative Universities (51-100)

Rank	Name	Region	Rank	Name	Region
51	Tampere University	Finland	76	Kansai University	Japan
52	University College London	UK	77	University of the People	USA
53	Monash University	Australia	78	Telkom University	Indonesia
54	Temple University	USA	79	Far Eastern University	Philippines
55	Florida Gulf Coast University	USA	80	University of Vienna	Austria
56	Dublin City University	Ireland	81	Rensselaer Polytechnic Institute	USA
57	George Mason University	USA	82	Universiti Kuala Lumpur	Malaysia
58	Instituto Politécnico de Bragança	Portugal	83	Kyushu University	Japan
59	RWTH Aachen University	Germany	84	La Trobe University	Australia
60	Toyota Technological Institute*	Japan	85	Murdoch University	Australia
61	Northwestern University	USA	86	Morgan State University	USA
62	Ajou University	Korea, Rep.	87	Seoul School of Integrated Sciences & Technologies*	Korea, Rep.
63	Beijing Technology & Business University	China	88	Charles Darwin University	Australia
64	Indira Gandhi Delhi Technical University for Women	India	89	Griffith University	Australia
65	University of Oulu	Finland	90	Hanbat National University	Korea, Rep.
66	Hong Kong University of Science and Technology	Hong Kong SAR, China	91	Draper University**	USA
67	Badr University in Cairo	Egypt	92	King Mongkut's Institute of Technology Ladkrabang	Thailand
68	Burapha University	Thailand	93	Lac Hong University	Vietnam
69	Aix-Marseille University	France	94	Chungwoon University	Korea, Rep.
70	Belgorod State National Research University	Russia	95	Riga Technical University	Latvia
71	Tra Vinh University	Vietnam	96	Chungbuk National University	Korea, Rep.
72	IEDC-Bled School of Management*	Slovenia	97	Dalian Neusoft University of Information	China
73	Hamburger University**	USA	98	CENTRUM PUCP Business School	Peru
74	Northern Kentucky University	USA	99	Seoul Institute of the Arts*	Korea, Rep.
75	Cranfield University	UK	100	University of Liberal Arts Bangladesh	Bangladesh

^{*} boutique universities with degree programs

^{**} boutique universities with non-degree programs

Table of Contents

The New Ranking: Importance and Methodology

The Rankings of Innovative Universities



Cases and Implications

Conclusion

Innovative Cases: Industrial Application

Minerva Schools at KGI

(Global Civic Projects)

- Civic Projects are semester-long <u>collaborations between students and local organizations or community leaders.</u>
- Civic Projects are located in Minerva School <u>residential 7 cities</u> including San Francisco, Hyderabad, Berlin, London, Taipei, Seoul, and Buenos Aires.
- Students learn how to <u>communicate</u> <u>across different cultures</u> and learn critical interpersonal skills.

Cheung Kong Graduate School of Business

(Executive MBA Program)

- In-class incubator: students
 present real business proposals
 and receive professional feedback.
- Social innovation: to solve <u>pressing social issues</u> through closer cooperation between government, civil society and non-profit organizations.
- Humanities: to cover the four dimensions of heaven, earth, self, and group; integrating the modern Chinese and Western perspectives.

Innovative Cases: Entrepreneurial Spirit

University of Chicago

(Social Entrepreneurship Program)

- A powerful entrepreneurial support system to provide the resources that startups need to succeed.
- Social New Venture Challenge
 Program: to support for-profit and non-profit startups; Tarrson Social Venture Fellowship Program: to support the startups built on social missions
- Integrate business fundamentals and skills with research and experiencebased learning, to drive the social sector innovation.

Hanze University of Applied Sciences (Hanze Entrepreneurship Model 2.0)

- Create startups based on applied research outcomes from joint multidisciplinary research with companies/institutions
- All of the Hanze's 30,000 students
 are exposed to the Hanze
 entrepreneurship model when
 entering a study program and will be
 monitored.
- Professors of all 15 schools have been trained by the university's train system to ensure widespread entrepreneurship competencies.

Innovative Cases: Ethical Value

University of Pennsylvania

(Wharton Impact Venture Projects)

- Bendheim Loan Forgiveness Fund for Alumni: a program that awards Wharton alumni working in social impact careers.
- Wharton Africa Growth Partners
 (WAG): a program to help <u>African</u>
 <u>small- and medium-sized enterprises</u>
 (SMEs) by conducting investment research.
- To offer <u>sustainable help for</u> <u>corporations at early stages with</u> <u>potential social impacts</u> and highlight the need to invest in sustainable business

University College London

(Global Disability Innovation Hub)

- To provide early support for university innovation and provide <u>assistive technologies</u> to improve the lives of <u>people with disabilities</u>
- Projects aiming to improve learning outcomes among <u>children with</u> <u>hearing and sight impairments</u> using assistive technology
- Integrate technology to address real-life problems and offer "sustainable help" – by <u>developing</u> <u>assistance technology to</u> help people with disabilities who can be more self-reliant

Innovative Cases: Student Mobility and Openness

Boston University

(Sea Education Association, SEA)

- All SEA programs incorporate interconnected courses designed to explore a <u>ocean-related theme using</u> <u>a cross-disciplinary approach</u>
- Global Ocean Program: an interdisciplinary semester that explores the environmental issues on the sea to understand how global ocean change occurs
- Ocean Exploration Program: six weeks at sea managing shipboard operations, <u>navigating by the stars</u>, analyzing oceanographic samples, and <u>visiting foreign ports</u>.

Hankuk University of Foreign Studies (Global Exchange Program)

- Model United Nations Conference: the first in Korea and one of the best foreign language conferences at the university level
- Global Academic Conference: to host international academic conferences on diverse subjects and encourage global research collaboration
- Virtual Exchange Programs: to promote <u>global mobility</u> by providing <u>the virtual setting</u> for partner universities and <u>international students</u> to break through the <u>COVID-19</u> pandemic

Innovative Cases: Crisis Management

Massachusetts Institute of Technology

(MIT's Pandemic Response CoLab)

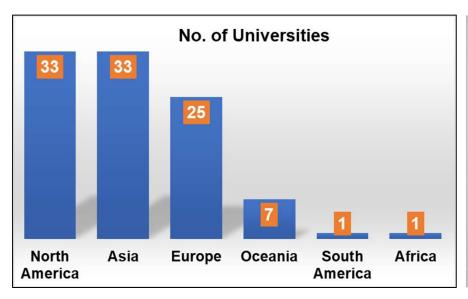
- The Community Innovators Lab
 (CoLab) facilitates the interchange of
 knowledge and resources <u>between</u>
 <u>MIT and community organizations</u>.
- Crisis: <u>COVID-19</u> and COVID-19related social problems such as <u>contact tracing, loss of jobs, child</u> <u>care</u>, and so forth
- Management: CoLab will use an open online collaboration platform to invite individuals, businesses, communities, and other kinds of groups to develop answers to pandemic problems

Florida Gulf Coast University

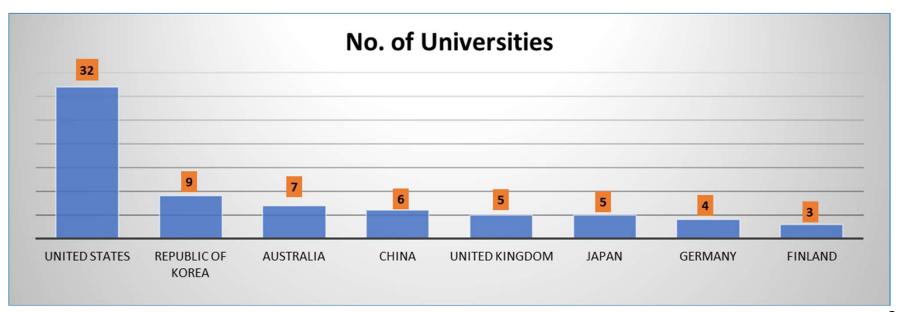
(COVID-19 Business Impact Assessment)

- Phase 1: <u>Initial survey</u> of area businesses in order to create <u>baseline economic conditions</u> due to COVID-19 (published on April 2020)
- Phase 2: Follow-up surveys to track how this baseline changed over the months that followed (published on May, June, and July 2020)
- Phase 3: <u>Utilizing the information</u>
 from the surveys to conduct a more
 <u>in-depth economic impact analysis</u>
 (last phase survey was **performed** in
 the end of December 2020; this
 phase of assessment is <u>on-going</u>)

Emerging Challengers: Regions and Nations







Emerging Challengers: Neo-Boutique Universities (NBU)

Traditional

Non-traditional

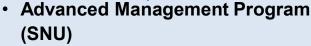
(Neo-boutique Universities)

Degree

- Franklin University Switzerland
- Hanze University of Applied Sciences
- MIT
- Northern Arizona University
- Seoul National University
- Stanford University

- aSSIST
- CKGSB
- Minerva Schools at KGI
- Olin College of Engineering
- Toyota Technological Institute
- University of the People





- Big Data Hub (SFU)
- Industrial Liaison Program (MIT)
- Lifelong continuing education (INU)
- NASA Course Series (ASU)
- Service Design Institution (Tsinghua University)

- Draper University
- Foundry University
- Ecole 42
- Hamburger University
- SADI
- Singularity University



- The line between traditional and non-traditional universities has become blurry.
- Both tend to address the real-world issues for their education and research.

Table of Contents

The New Ranking: Importance and Methodology

The Rankings of Innovative Universities

Cases and Implications



Conclusion

Conclusion

New roles of universities

Knowledge creation and transfer → Solutions to the diverse needs of society

New ranking system

Traditional academic performance → Real impacts on the world

- New trend: More engagement with society and environment
 Both traditional and neo-boutique universities
- New challenge: COVID-19 pandemic and after From survive to thrive

Cross-learning and Innovation!