UPM
UNIVERSITY PERFORMANCE METRICS

REGIONAL RATING SYSTEM
2021

Plus
UPM 2021

University...
INDONESIA

GREETINGS!

The Regional Rating System - **UNIVERSITY PERFORMANCE METRICS** - **UPM** has been developed to assess the responsiveness of universities in the Fourth Industrial Revolution era through the five core indicators: *Entrepreneurial Spirit, Innovative Approaches, Digital Transformation, Student Mobility, and Ethical Values*.

UPM includes a set of 54 indicators across 8 categories following two distinctive orientations: *research* and *application*. Evaluation results are presented in the form of an overall score for the whole institution and a score for each category and each indicator, corresponding to a number of Stars ranging from 1 – 5 and 5 Stars ELITE.

This rating system could bring significant benefits to different stakeholders. Higher-education institutions can use it as a benchmark tool for strategic development, as well as evidence-based branding for attracting students and potential partners.

Benchmarking results can be used as useful indicators for students to select study destinations and for employers to recruit qualified human resources. They can also be a reliable source of reference for national governments to make future policies or decisions on education.

UPM is extremely pleased to inform you the benchmarking results of your institution. This assessment report presents the detailed rating results and the data that has been used as the basis for the rating score. Hopefully, this would provide you with useful information for your institution's self-benchmarking and strategic governance. In addition, you can use it for your media communication.

Thank you for taking part in **UPM**. If you need any further information about the results, please feel free to contact us at upm@vnu.edu.vn.

Audit and assessment start date: 10 Dec 2020
Delivery date: 10 Feb 2021
Validity date: 10 Feb 2021 – 10 Feb 2024

Manager
Prof. Nguyen Huu Duc
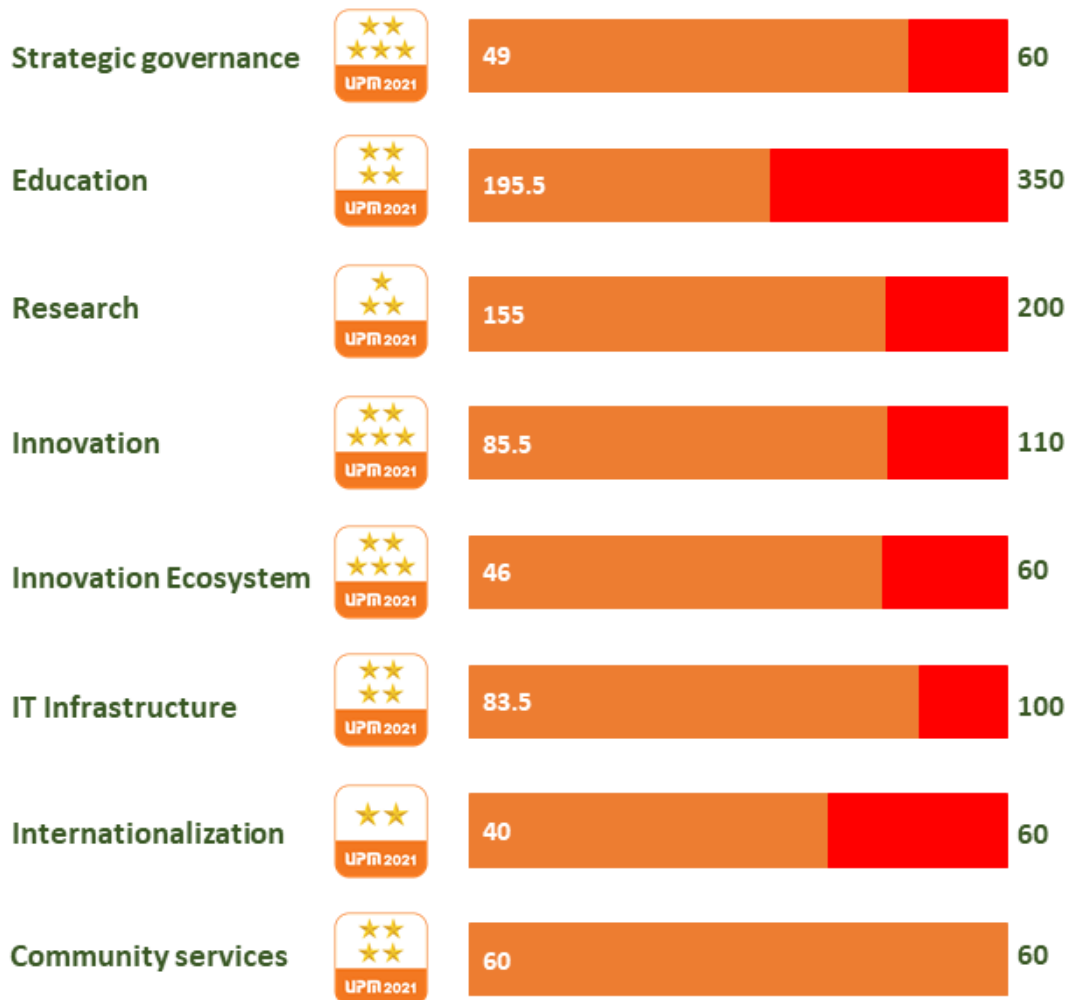**upm@vnu.edu.vn**

Innovate to Transcend

OVERALL RATING

UPM
UNIVERSITY PERFORMANCE METRICS

UNIVERSITY...

INDONESIA

★ ★ ★ ★ PLUS

2021
RESEARCH ORIENTED UNIVERSITY

Achieved score	Maximum score
714.5	1000

CATEGORY RATING

Category	Rating	Score	Max
Strategic governance	UPM 2021	49	60
Education	UPM 2021	195.5	350
Research	UPM 2021	155	200
Innovation	UPM 2021	85.5	110
Innovation Ecosystem	UPM 2021	46	60
IT Infrastructure	UPM 2021	83.5	100
Internationalization	UPM 2021	40	60
Community services	UPM 2021	60	60

STRATEGIC GOVERNANCE

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
1.	**Strategic Governance**	60			49	★★ ★★★ UPM 2021
1.1	**Strategy** The university's strategy reflects vision, mission and culture as well as strategic goals of education, research and community service; innovation & entrepreneurship orientation and development of the smart, digitalized university in response to the demands of fourth industrial revolution	15	1-7	6	13	★★ ★★★ UPM 2021
1.2	**Plan** Mid-term and short-term plans of the institution and units in the institution are aligned, assuring the implementation of the contents and in the development strategy	10	1-7	6	8.5	★★ ★★★ UPM 2021
1.3	**Organizational structure and management** Related units/divisions are established and have specific functions to perform strategic tasks (in particular for the functions of innovation, entrepreneurship, digital transformation), with reasonable size and performance	10	1-7	5	7	★★ ★★ UPM 2021
1.4	**Implementation** Documents, policies and resource allocation to carry out missions and achieve goals are established and implemented, especially resource investment for achieving the goals of innovation, starts-up and building a smart university	15	1-7	5	10.5	★★ ★★ UPM 2021
1.5	**Accreditation and ranking** Having got the results of institutional accreditation or/and national/international ranking for the institution or related field.	10	5-10	10	10	★★ ★★★ UPM 2021

EDUCATION

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
2.	**Education**	**350**			**195.5**	★★ ★★ UPM 2021
2.1	**Quality of incoming students** The average score (the admission percentage) of incoming freshmen in national university entrance exams of all disciplines in the last 3 consecutive years	40	12-25	25	40	★★ ★★★ UPM 2021
2.2	**Size of academic faculty** The proportion of academic staff in the total number of undergraduate and postgraduate students	35	2-8%	4.3	9	★★ UPM 2021
2.3	**Academic faculty quality** The proportion of academic faculty staff with a Ph.D. degree in the total number of academic staff	40	3-70%	23	11	★★ UPM 2021
2.4	**Faculty reputation** The proportion of lecturers bearing titles of professor or associate professor to the total number of faculty staff	35	1-20%	3.6	3	★ UPM 2021
2.5	**Size of graduate education** The proportion of graduate education (MSc. and Ph.D. students) to the overall scale of the institution's education	30	20%	1.75	2.5	★ UPM 2021
2.6	**Size of doctoral education** The average number of Ph.D. degrees awarded in the last 3consecutive years	20	5	-	-	-
2.7	**Program's expected learning outcomes** The program's ELOs are stated approaching the requirements of 4IR	15	1-7	5	10.5	★★ ★★ UPM 2021
2.8	**Updating and adjusting conventional curriculum structure** The conventional curriculum structure is updated to be open, flexible with broad foundation knowledge and highly responsive to the requirements of 4IR.	15	1-7	5	10.5	★★ ★★ UPM 2021
2.9	**Developing new training programs directly related to 4IR** The new programs are related to basic 4.0 technologies such as IoT, AI, Big Data, Robotics, 3D printing technology, Material and Sensor technology, Energy, Biotechnology, or integration of all the above technologies, Digital Economy, Creative and Culture Industries…	20	1-5	6	20	★★ ★★★ UPM 2021
2.10	**Personalized learning** Bring into full play of the advantages of credit-based training, reaching the goal of individualization and/or personalization in training; encouraging cooperation among the faculties in the institution, with other universities and industries	10	1-7	5	7	★★ ★★ UPM 2021

2.11	**Students' research and start-up projects** Student research and start-up projects are organized effectively. International, national and ministerial-level or equivalent prizes are attained	15	1-7	5	10.5	★★ ★★ UPM 2021
2.12	**Student's satisfaction with the teaching** 90% of student satisfaction with scaled scores down to 50% of student satisfaction. Results conducted by the institution applied to all the education programs	20	90%	83	16.5	★★ ★★★ UPM 2021
2.13	**Employers' satisfaction with the teaching** 90% of employers satisfaction with scaled scores down to 50%	20	90%	100	20	★★ ★★★ UPM 2021
2.14	**Student employability** The percentage of graduates have jobs within 12 months	20	90%	100	20	★★ ★★★ UPM 2021
2.15	**Student academic awards** The percentage of awards for research, innovation, start-up, Olympic competition… at ministerial, national, international and equivalents related to the training fields of the institution in the last 3 years	15	1.0%	1.5	15	★★ ★★★ UPM 2021

RESEARCH

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
3.	**Research**	**200**			**155**	★★ ★★★ UPM 2021
3.1	**International publications** The average number of ISI and/or Scopus research papers per academic staff in the last 5 years	100	1.5	2.64	100	★★ ★★★ UPM 2021
3.2	**Research quality** The average number of citations per ISI-Scopus research paper per academic staff in the last 5 years	60	10	2.5	15	★★ UPM 2021
3.3	**Academic/scholarly books publication** The average number of academic/scholarly books with respect to a post-graduate discipline and field in the last 3 years	20	2	5	20	★★ ★★★ UPM 2021
3.4	**Prolific researches** The percentage of faculty staff getting ministerial, national or international academic awards in the last 5 years	20	0.5%	0.5	20	★★ ★★★ UPM 2021

INNOVATION

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
4.	**Innovation**	**110**			**85.5**	★★ ★★★ UPM 2021
4.1	**Nationally recognized intellectual property** The number of copyrights, utility solutions, patents registered with national IP offices during the last 5 years	30	20	622	30	★★ ★★★ UPM 2021
4.2	**Globally recognized intellectual property** The number/proportion of patents registered with international IP offices during the last 5 years	10	5	-	-	-
4.3	**Revenue for research and innovation** The average proportion of sponsorship revenue for research, R&D, innovation and start-up to the total revenue during the last 3 years	50	15%	10.6	35.5	★★ ★★ UPM 2021
4.4.	**Start-up businesses and spin-off companies** Start-up businesses and spin-off companies developed from faculty staff's and students' research outcomes during the past 5 years	20	5	38	20	★★ ★★★ UPM 2021

INNOVATION ECOSYSTEM

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
5.	**Innovation Ecosystem**	**60**			**46**	★★ ★★★ UPM 2021
5.1	**Research, R&D and innovation facilities** Education programs have adequate laboratories and equipment for practice, research, R&D and innovation	20	1-7	5	14.5	★★ ★★ UPM 2021
5.2	**Creative co-working space and start-up supports** Space for innovation and start-up support is where faculty staff, students and start-up community share ideas, design, construct and develop new products	20	1-7	5	14.5	★★ ★★ UPM 2021
5.3	**Business incubator** A business incubator is a unit/section that provides services, office space, management training… to nurture start-ups to develop into independent businesses	10	1-7	5	7	★★ ★★ UPM 2021
5.4	**Business/industry partners** A number of businesses, industries and organizations that have collaboration in students' research, start-up projects; provide funding/grants for customized research or/and collaboration in R&D resulting in co-publications and shared IP license/industry co-patents	10	2	10	10	★★ ★★★ UPM 2021

INFORMATION TECHNOLOGY INFRASTRUCTURE

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
6.	**IT Infrastructure**	**100**			**83.5**	⭐⭐⭐⭐⭐ UPM 2021
6.1	**Network infrastructure and information connection capacity** Equipped with information connection system to ensure the administrative procedures can be carried out online	10	1-7	5	7	⭐⭐⭐⭐ UPM 2021
6.2	**Competence in quality analysis and management** Database and statistics software for key fields: education, research, staff, finance, infrastructure & facilities, learners and quality assurance database	10	1-7	5	7	⭐⭐⭐⭐ UPM 2021
6.3	**Digital scholarly resources** The number of digitized learning materials and copyrighted digital documents on the institution's website/repository per faculty member	10	20	122	10	⭐⭐⭐⭐⭐ UPM 2021
6.4	**Learning resource access** Statistics of access frequency to digitalized learning resources	10	5	7	10	⭐⭐⭐⭐⭐ UPM 2021
6.5	**Degree of online academic interaction** Frequency of average connection, interaction among faculty staff and students in the course group (twice/student/week), counted by specialized tools)	10	2	-	-	-
6.6	**MOOC and digital lessons (e-Learning)** The average number of online or/and MOOC courses of the total number of education programs with necessary links demonstrated in the institution's portal	10	5	10	10	⭐⭐⭐⭐⭐ UPM 2021
6.7	**Application of Cyber Physical System (CPS)** Several virtual practice laboratories and/or manufacture factories related to the application of IoT, AI... having copyright are being in use for the total number of tertiary programmes	10	3	6	10	⭐⭐⭐⭐⭐ UPM 2021
6.8	**Wifi access** WIFI access across 75% of campus area (excluding classrooms, lecture halls, administration and library places)	10	75%	90	10	⭐⭐⭐⭐⭐ UPM 2021
6.9	**Duplication check and research ethics** Use at least 01 copyrighted software for duplication-checking and research ethics	10	1	1	10	⭐⭐⭐⭐⭐ UPM 2021
6.10	**Webometrics index** Webometrics Ranking assess the visibility and accessibility of the institution's web learning materials and academic publications.	10	1-100	5	9.5	⭐⭐⭐⭐⭐ UPM 2021

INTERNATIONALIZATION

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
7.	Internationalization	60			40	★★ ★★ UPM 2021
7.1	**Using a foreign language as the medium of instruction** The number of active programs using mainly a foreign language as the medium of instruction whose degrees are granted by the institution	10	1-3	5	10	★★ ★★★ UPM 2021
7.2	**International joint training programs** The number of active international joint training programs, the degrees of which are granted by a foreign university or co-granted by the institution and a foreign university	5	1-3	5	5	★★ ★★★ UPM 2021
7.3	**International students** 2% of students with foreign nationalities studying in formal degree programs (to the total number of the students in the institution)	10	2%	3.75	10	★★ ★★★ UPM 2021
7.4	**International faculty** 5% of academic staffs with foreign nationalities (to the total number of faculty), who touch at least one subject/course or spent at least 3 consecutive months teaching or doing research at the institution	5	5%	3.4	3.5	★★ ★★ UPM 2021
7.5	**Inbound exchange students** 3% of students holding foreign citizenship to study or do internship the credits of which can be transferred.	5	3%	0.01	-	-
7.6	**Outbound exchange faculty** 5% of academic staffs (to the total number of faculty), who touch at least one subject/course or spent at least 3 consecutive months teaching or doing research at the institution abroad	5	5%	-	-	-
7.7	**Outbound exchange students** 2% of students studying or doing do internship the credits of which can be transferred	5	2%	1.5	4	★★ ★★★ UPM 2021
7.8	**International conferences or symposiums** The number of international conferences or symposiums hosted by department or institution per discipline in the last three years	5	1	2	5	★★ ★★★ UPM 2021
7.9	**International research collaboration** The proportion of ISI-Scopus publications affiliated with international scientists	10	0-90%	25	2.5	★★ UPM 2021

COMMUNITY SERVICES

No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
8.	**Community Services**	**60**			**60**	⭐⭐⭐⭐⭐ UPM 2021
8.1	**Life-long learning capacity enhancement** The average number of short-term courses is designed to efforts to tailor education to meet the life-long learning requirements	20	1	2.3	20	⭐⭐⭐⭐⭐ UPM 2021
8.2	**Sustainable development** Activities promoting and/or implementing the university's impact on the community sustainable development, such as climate change, energy conservation program, water conservative program, recycle program, transportation policies and the realization of the UN's 17 sustainable development goals	20	1	1.25	20	⭐⭐⭐⭐⭐ UPM 2021
8.3	**Social norm promotion** Community engagement activities (between the university and sociopolitical organizations) to support and foster harmoniously social norms on a large scale and effectively	20	1-5	25	20	⭐⭐⭐⭐⭐ UPM 2021

BASIC FACTS AND FIGURES

Total student size:	**23346**
Undergraduate students:	22952
Master students:	394
Doctoral students:	0
Total number of academics:	**1001**
Full-time faculty staff:	1001
Part-time lecturers/professors:	0
Full-time faculty staff with doctorate degree:	230
Full-time faculty staff bearing titles of Professor or Assoc. Professor:	36
Total number of education programs:	**40**
Undergraduate programs:	35
Master programs:	5
Doctoral programs:	0

Data period 2016 – 2020

GENERAL ANALYSIS
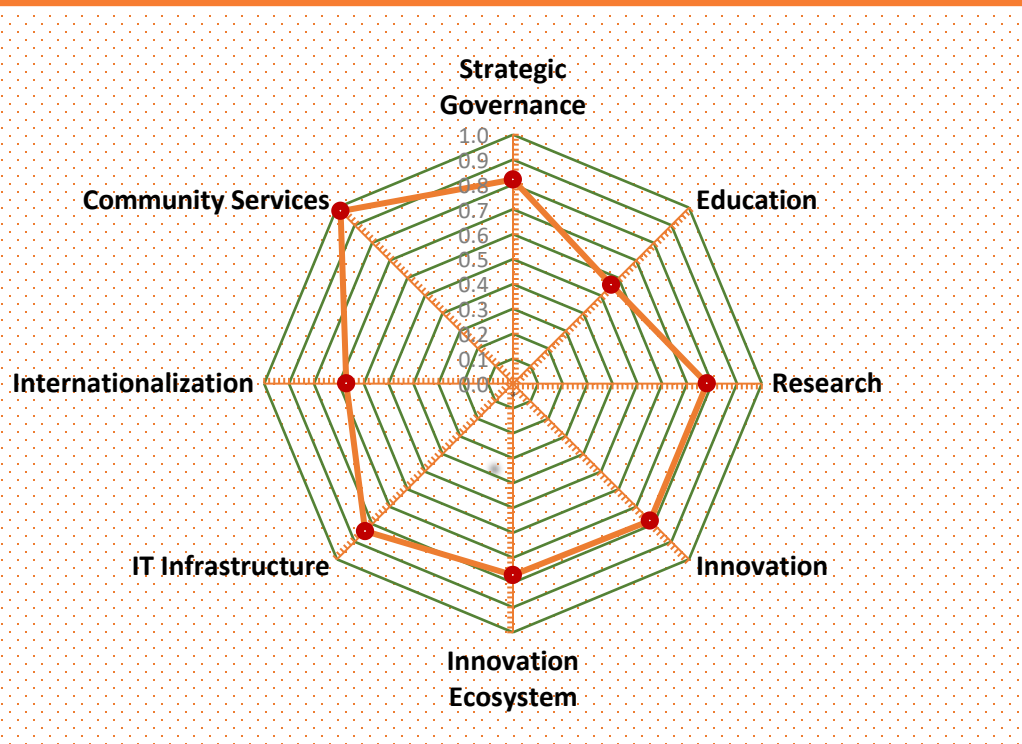
ABOUT UPM

WHAT

- UPM is the rating system, the development of which was funded by the Vietnam Ministry of Education and Training, to assess the responsiveness of universities in the 4th Industrial Revolution (4IR) era.

- UPM is a suitable rating tool for universities in the region who aim to benchmark with the Asian top 100 universities. It evaluates university performance through 54 indicators across 8 categories, following two distinctive orientations: research and application. Evaluation results will be presented in the form of an overall score for the whole institution, and a score for each category, corresponding to a number of Stars ranging from 1 – 5.

- RANKING CORE

- RATING
1. Strategic Governance
2. Education
3. Research
4. Innovation
5. Innovation Ecosystem
6. IT infrastructure
7. Internationalization
8. Community Services

- 4.0 METRICS
1. Entrepreneurship
2. Innovation
3. Digital Transformation
4. Student Mobility
5. Ethical value

- UPM 5 stars universities have high national reputation and are internationally recognized; UPM 4 stars universities are well-known not only in the country but also in the region; UPM 3 stars universities have their roles in the national higher education (HE) system and can facilitate student mobility in ASEAN countries.
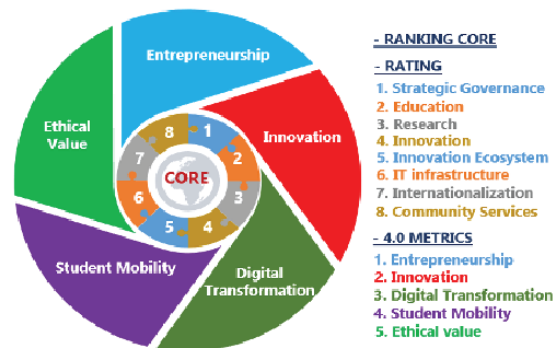
WHY

- Traditional university ranking, rating systems just focus on traditional academic and human resource performance, in particular, on world/region top HE institutions.

- In the era of 4IR, the world is changing rapidly with high uncertainty, broad connectivity and unlimited potentials.

- Universities have new roles and responsibilities:

+ Employees ➡ Employees and Entrepreneurs
+ Knowledge Creation and Transfer ➡ Knowledge Creation and Exploitation
+ Academic Institution ➡ Real World (Inside-out – Outside-in).

- Benchmarking and assessing the quality of a university should be performed in a holistic and innovative way. UPM can satisfy that requirement as it reasonably integrates the main features of education accreditation with those of university ranking and rating, while especially focusing on the 5 core characteristics of higher education 4.0: Entrepreneurship, Innovation, Digital Transformation, Student Mobility and Ethical Values.

WHO
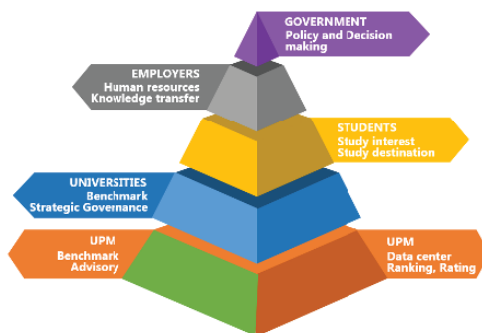
- As a data and analysis center, **UPM** facilitates benchmarking and provides consultancy for the national HE system, as well as HE institutions and programmes in the region.

BENEFICIARIES:

- **HE institutions** can use UPM criteria to benchmark themselves or as a tool for strategic governance and partner development. They can also use benchmarking results for evidence-based branding.

- **Students** can be informed by UPM benchmarking results to choose their study destinations to pursue their study interests.

- **Employers** can recruit qualified human resources and make use of S&T achievements indicated by UPM benchmarking results.

- **The government** can use UPM benchmarking results as the basis for policy and decision making.

HOW

- Visit the site https://upm.vn for full introduction and methodology; download the UPM dataset template. Fill in the dataset and submit the self-reported data for the institution as a whole to UPM at *upm@vnu.edu.vn*.

- UPM team and their advisory committee will review and approve the data, then decide the score. A fact file is available for participant universities before official launching. All data are secured by the institution as well as UPM.

- After assessing and awarding the stars, UPM can publish the institution's profile and the results of the overall star and the score for each category on its website.

- The detailed results of all indicators can also be publicized by the institution. The institutions can provide third parties with all the data released from a UPM dataset either in printed or digital forms.