

Japan launches multimillion dollar program to internationalize university education

The inception of the Top Global University Project was precipitated by the perception amongst university administrators that Japan is losing ground in the globalization of education and research. The Japanese government is now undertaking a program to improve world rankings, increase international student ratios, and change the mind-set of faculty and staff at select universities.

By Adarsh Sandhu

In September 2014, Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) announced the selection of 37 Japanese universities for the 10-year, multimillion dollar Top Global University (TGU) Project, with the goal of "enhancing the international compatibility and competitiveness of higher education in Japan" (see Top Global University Project designations). Notably, the funding for this project is aimed at internationalizing education at Japanese universities, in contrast to funding for research-based reforms that was the aim of the 10-year Program for Promoting the Enhancement of Research Universities launched in the fall of 2013 (1).

The annual funding for the chosen universities is divided into Type A (¥420 million, US\$3.5 million) for those that have the potential to be ranked as one of the top 100 in the world, and Type B (¥172 million, US\$1.4 million) to support "innovative universities" in their efforts to internationalize.

With a view to openness and accountability, MEXT has posted the original 37 winning proposals for this project on its website (2). An examination of the proposals reveals many common goals and aspirations as well novel initiatives based on the history of each institute. Several universities are planning to introduce a new quarterly semester system to align Japan's academic calendar with the rest of the world, thereby enabling the launch of new English language dual-degree programs. Another common theme is a commitment to growing the number of international students. Many universities have promised the construction of new "international dormitories" to house overseas and domestic students in the same space as well as an expansion of the powers of university presidents to hire new faculty and set competitive salaries.

Sense of crisis within Japan's university administration

The TGU Project highlights a sense of crisis among Japan's university administrators who feel that the country is slow in coming to terms with the globalization of education. Some recent statistics published by MEXT that compare the performances of Japanese universities with those in the United States and Europe underscore these concerns. For example, only 2.9% of students enrolled at Japanese universities are from overseas and in Japan only 5.1% of teaching staff are from abroad, compared with 29.5% at Harvard University (U.S.) and 41.4% at Cambridge University (U.K.).

Another, and perhaps equally important issue, is encouraging Japanese students to study abroad. According to MEXT, only approximately 57,500 Japanese students went abroad in 2011, compared with around 83,000 in 2004. The consensus amongst Japan's academia to explain this trend is that there is no real need for Japanese students to go overseas because they can find everything they need for their studies and careers in Japan. A major concern is that such inward-looking students will not readily become part of the global network of scientists, thus further isolating Japan in terms of research and education in the future.

Paying for education

There are 775 universities in Japan: 86 national, 86 public, and 603 private, with approximately 5% of the 2.8 million students studying at national or public institutes. So why are Japan's university administrators spending so much time and energy on internationalization? There are two main reasons.

The first is the realization that the dramatic fall in Japan's birth rate—in 2014 there were 1.001 million births and 1.269 million deaths according to the health ministry—will lead to excess capacity, with the possibility of serious financial problems for both national and private universities. The drive to recruit more international students is intended to fill those places not taken by domestic students.

In terms of public sector university financing, national universities have had to justify their existence following passage of the National University Corporation Law in 2004 that gave Japan's national universities much greater autonomy to manage their own affairs, but importantly, required them by law to submit strategies and plans to the government in order to receive subsidies. Another significant change in government funding support was the introduction of a 2005 policy that reduced the annual government subsidy by 1% each year. In 2007, the government also began to reduce subsidies to private universities by 1% annually. In general, government subsidies cover approximately 80% of the running costs of national universities and about 10% of private institutes.

Tuition fees are an important source of income for universities. The annual tuition fee at Japan's national universities is approximately ¥550,000 (US\$4,600), while at private universities it is between ¥1,000,000 (US\$8,400)



for arts, sciences, and engineering and over ¥3,000,000 (US\$25,200) for medicine and other medical degrees. Since this income is insufficient to cover the running costs for most universities, they must compete for government funding.

The second reason that projects to internationalize Japan's universities are being supported is the poor showing of these universities in world ranking tables. University presidents are puzzled and irritated in equal measure to find that only the University of Tokyo and Kyoto University were in the top 100 of the 2014 *Times Higher Education World University Rankings*. This contrasts with three each from China and South Korea, and two from the tiny nation of Singapore. The performance of Japan's top universities appears to reflect the large disconnect between how universities are evaluated within Japan when compared with the criteria used internationally. The president of one of Japan's top institutes confides, "We ignored the rankings for many years. However, the recent world rankings were a trigger that led us to devise new initiatives to improve our global competitiveness."

The search for new career paths for university graduates

Another driving force behind the TGU Project is that Japanese companies have a greater presence overseas now than a decade ago, especially in Asia. They are increasingly global in their outlook and operations, and need employees with a multidisciplinary education and the ability to work globally. In response to the demands of Japan's industrial sector, the proposals submitted by the 37 selected universities contain plans to give students opportunities to study interdisciplinary undergraduate courses and go abroad on industrial internships as well as to provide internships for overseas students at companies in Japan.

The next 10 years and beyond

Only time will tell whether Japan's top 37 universities will achieve their project goals, in particular whether they are able to improve their world university ranking. It seems theoretically possible to achieve all these aims given innovative management, financing, and strategic global networking. However, some prominent academics in Japan have lingering concerns about just how far such internationalization should go, with some saying that the ultimate question will be whether Japan's taxpayers want to support universities that are educating so many overseas students.

Adarsh Sandhu is a freelance writer based in Tokyo.

REFERENCES

1. *Japanese Universities Gain a Competitive Edge*, *Science* **343**, 1524 (2014) www.sciencemag.org/site/products/advertorials/Japanese_Univ_low_20140408.pdf.
2. www.jsps.go.jp/j-sgu/h26_kekka_saitaku.html (in Japanese).

Top Global University Project designations

Type A Universities

Hokkaido University
Tohoku University
University of Tsukuba National
The University of Tokyo
Tokyo Medical and Dental University National
Tokyo Institute of Technology
Nagoya University National
Kyoto University
Osaka University National
Hiroshima University National
Kyushu University
Keio University*
Waseda University*

Type B Universities

Tokyo University of the Arts National
Nagaoka University of Technology
Kanazawa University National
Toyohashi University of Technology
Kyoto Institute of Technology
Nara Institute of Science and Technology
Okayama University
Kumamoto University
Akita International University (Public)
The University of Aizu (Public)
Hosei University*
International Christian University*
International University of Japan*
Kwansei Gakuin University*
Meiji University*
Rikkyo University*
Ritsumeikan University*
Ritsumeikan Asia Pacific University*
Shibaura Institute of Technology*
Soka University*
Sophia University*
Toyo University*

*Indicates private university; all others are national universities.

Hiroshima University— Knowledge creation for the prosperity of humankind

Hiroshima University is one of the largest comprehensive academic institutes in Japan with an annual income of ¥85.9 billion (US\$732 million). It offers courses in subjects ranging from law, economics, and education to science, engineering, and medicine. The university has approximately 11,000 undergraduate students, 4,200 graduate school students, and 1,100 international students from 66 countries as well as 1,700 faculty and 1,600 nonacademic staff.



"The founding principles of Hiroshima University are embodied in its motto: 'a single unified university, free and pursuing peace,'" says Masaki Sakakoshi, executive and vice president responsible for international education and peace. "The university is committed to nurturing students in

a stimulating, international environment where scholars pursue cutting-edge research for the prosperity of humankind. Our mission is to be a base for knowledge creation."

The roots of Hiroshima University go back to 1874 with the establishment of the Hakushima School. The modern university was formed in 1949 by combining Hakushima with six other schools. "The university worked closely with the city of Hiroshima to rebuild after the devastation of the first atomic bomb attack in history," says Sakakoshi. "We decided to move out of central Hiroshima and by 1995, had merged and relocated 9 of our 11 faculties to the Higashi-Hiroshima campus. The faculties of Medicine and Dentistry, and Hiroshima University Hospital are located at the Kasumi campus, while some departments of the faculties of Law, Economics, and the Graduate School of Social Sciences and the Law School are at the Higashi Senda campus.

Top Global University Project

In 2014, Hiroshima University was selected by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) as one of Japan's top 13 universities for the Type A (see editorial on page 1492) Top Global University (TGU) Project.

"The selection of Hiroshima University by MEXT for this highly competitive project underscores our accomplishments providing world-class research and education to date," says Hajime Nishitani, vice president for internationalization. "Some of our ambitious goals over the 10-year duration of the project include increasing the number of international students to 20%, offering 50% of courses in English, and increasing international faculty members to 50%."

Objective assessment of the quality of education is a high priority at Hiroshima University. One of the measures that will be implemented as part of the TGU Project is peer review of the new educational programs by representatives from the international universities involved in the Student Experience in the Research University consortium.

Research is an integral part of the university's strategy for global-



Masaki Sakakoshi



Hajime Nishitani



Fusahito Yoshida

ization. Internationally renowned research facilities include the Research Institute for Radiation Biology and Medicine (RIRBM)—set up in 1961 to provide medical care for survivors of the August 1945 atomic bomb—and the Institute for Amphibian Biology, which holds unique expertise in rearing amphibians for studying the development, inheritance, and evolution of inbred strains of tropical clawed frogs.

"Our excellence in research was acknowledged in 2013 when we were selected by MEXT for the Program for Promoting the Enhancement of Research Universities," explains Fusahito Yoshida, executive and vice president for research. "We are an open-minded university that welcomes the global community of students and scholars to join us to solve challenging problems of the 21st century." Notably, researchers at the RIRBM are now studying the effects of radiation on people affected by the Fukushima nuclear reactor accident caused by the earthquake and tsunami in March 2011.



Institute for Amphibian Biology



Session on radiation emergency medicine in a Ph.D. program

Aiming for the top

Hiroshima University is committed to creating knowledge on a global scale. "We offer a wide range of innovative educational programs, run unique research programs, and have launched highly successful industry-academia partnerships," explains Sakakoshi. "We want to improve our global visibility over the next 10 years to enhance our presence on the international stage. One of the goals of the TGU Project is to improve our international standing and be one of the top 100 universities in the world within 10 years."

Hiroshima University

www.hiroshima-u.ac.jp/index.html