

# World-class research standing of Hong Kong's publicly-funded universities confirmed by international experts: UGC's Research Assessment Exercise 2020

Results of the large-scale peer-review Research Assessment Exercise 2020 (RAE) clearly show that the eight publicly-funded universities in Hong Kong are in good standing internationally and all have considerably enhanced their research performance compared with the last RAE in 2014.



**Professor Chris Brink**  
Convenor of UGC RAE Group

**The evaluation by these experts show the RAE results stand up in comparison with the best of the world in almost every UoA.**

The University Grants Committee (UGC) released the results of the RAE 2020 on May 24, 2021. The exercise engaged 361 distinguished international and local scholars as well as local research end-users with extensive expertise in their respective fields.

The overall results are very encouraging. 70 percent of the research submissions were judged as internationally excellent or above, with 25 percent world-leading and 45 percent internationally excellent.

Embracing international best practice, the RAE 2020 is a criterion-referenced assessment evaluating the research outputs, impact and environment of the universities under 41 Units of Assessment (UoAs) based on different academic disciplines. They are assessed against five quality levels, from 4 star (world-leading), 3 star (internationally excellent), 2 star (international standing), 1 star (limited standing), to unclassified. A total of 4,223 academic staff made 16,293 submissions, including 15,757 research outputs from Oct 2013 to Sep 2019, 345 impact case studies, and 191 environment submissions.

Performance of Hong Kong universities compares favourably with their peers around the world, e.g. around 76 percent of submissions were judged to be 3 star and 4 star in the UK REF 2014 whilst around 66 percent of submissions met the Excellence in Research for Australia (ERA) rating 4 and 5 ("above world standard" and "well above world standard" respectively) in the ERA 2018 in Australia.

Convenor of UGC Research Group, Professor Sir David Eastwood says: "The RAE in Hong Kong is by international standard as robust, transparent and rigorous an assessment of research as [those conducted] anywhere else in the world." Sir David, who had overseen the RAE 2008 in the UK, is the Vice-Chancellor of the University of Birmingham, UK and current Chair of Universitas21.



Research performance at publicly funded universities in Hong Kong compares favourably with that of other universities around the world.

The exercise's methodologies have evolved over the years and the basis of making comparison with RAE 2014 is different. "But people can compare the quality of output between 2020 and 2014 and the overall quality at UoA level," says Sir David, adding that the results of RAE 2020 show that Hong Kong universities have enhanced their research quality substantially.

From 2014 to 2020, Hong Kong's universities devoted more resources on research. According to the UGC, the reported aggregate expenditure on research of the UGC-funded universities rose from HK\$7,984 million in 2013/14 to HK\$11,589 million in 2018/19.

#### RAE: Excellence and Accountability

A main goal of the RAE is to encourage world-class research and drive excellence. The RAE results provide guidance for the universities' future developments in pursuing research excellence and creating more synergies among research, teaching and learning, and knowledge transfer activities which are the core missions of the universities.

The RAE 2020 results will also inform the distribution of part of the Research Portion of the UGC Block Grant to universities. "It is also a matter of accountability through the government to the taxpayers," Sir David notes, adding that it's important that the universities have a good understanding of the quality of their research projects.

Because the exercise is massive in scale and costly and wholly dependent on fellow academics committing their time to conduct a rigorous peer review, which is universally agreed as the most robust form of assessment, logistically it would be challenging to conduct the exercise at shorter intervals every three to four years, Sir David says. "Conducting the exercise in this scale too frequently may make some academics think of their work in too short term. Important academic research takes time. When you look internationally where exercises are peer-reviewed, the frequency is normally between five to seven years." "Because the architecture of RAE 2020 accords with international best practice, the frequency of this exercise is about right."



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#### Delineation of universities' relative strengths

By making reference to the RAE 2020 results, individual universities could identify areas that would be further strengthened and opportunities where areas of excellence could be built up to reach critical mass.

The delineation of areas of strength can be made by looking at the sector-wide level, says Professor Chris Brink, Convenor of UGC RAE Group, which oversaw the RAE 2020. "Part of the exercise was to look at what kind of research had been done here and asked how we could judge it and compare it with research done internationally by international standards," he says, adding that two sources of feedback were generated.

"Apart from the numbers, the panels compiled extensive reports with recommendations for the universities. This is expert talking to expert. If you look at those reports, the kind of words they use are very complimentary, with quotes like 'the overall quality of research is high', 'impressive outcome', 'submissions comparable to the best in the world,'" Professor Brink notes. "The universities will be able to draw on the reports to adapt their strategies as they see fit." Professor Brink is the Emeritus Vice-Chancellor, Newcastle University, UK, and former Rector and Vice-Chancellor, Stellenbosch University, South Africa.

Sir David agrees that the RAE results serve as useful guidance for the universities to formulate their research strategies. "The universities' presidents will receive the Block Grant and make their decisions as autonomous institutions. We as university presidents in the UK know that our counterparts in Hong Kong will look at the results carefully, identify areas of outstanding strength, and see what measures are needed to enhance the performance. Those judgments will be made over a period of time."

#### The international perspective

According to the UGC Secretariat, out of the 361 panel members, around 70 percent of them are non-local academics coming from almost 20 countries/regions around the world.

"Nearly three quarters of the panel members are from overseas and all of the panel chairs are high-standing overseas academics. This matters for the rigour of the exercise," Sir David says.

The participation of a group of reputable experts around the world testifies to the credibility of the RAE results from an international perspective. "The heavy weighting towards overseas panel members who are leading academics is what gives this exercise real weight," says Professor Brink, adding that all overseas panel members had to declare if they had any dealings with the assessed universities. The strict and methodical handling was applied to the assignment of submissions for assessment and also the discussions.

"The evaluation by these experts show the results stand up in comparison with the best of the world in almost every UoA. The overall qualitative feedback from the panels is uniformly complimentary across all the units."

#### New elements

Keeping up with global trends such as the UK REF 2014, RAE 2020 includes two new assessment elements: research impact (positive effect on society) and environment (the vitality and sustainability of the support for research excellence) "Hong Kong people should have absolute confidence that the research is not just outstanding in its quality but is also significant in terms of impact," says Sir David.

Professor Brink also says "We aimed to assess what difference the research makes to people's life, the welfare of the society and the public sector ... at sector-wide level, there's a general movement internationally to put higher emphasis on impact."

## Robust and rigorous assessment despite Covid-19 challenges

The RAE 2020 is probably the world's first such exercise that has been conducted completely online, with its robustness and credibility to the full satisfaction of all panelists as in physical settings, international experts say. Despite the mounting challenges, it showcases UGC's high level of adaptability and flexibility in its operations and the commitment of all panelists to high international standards.

"We asked the universities to submit their research outputs by end-2019 and the assessment process started from the beginning of 2020. We had a trial run of assessment where we could still gather many people into one room," Professor Brink says.

The travel restrictions and quarantine requirements prompted the UGC Secretariat and all panelists to adapt and conduct the assessment meetings online. "Everyone aimed to make it work," he notes. "The only change was, instead of meeting physically for a one-week period in Hong Kong, all panels met virtually. It took much longer though. In the end the virtual meetings took six months from August 2020 to January 2021. It is essential that there was ample time for the assessors to discuss with one another."

More than 140 virtual meetings with over 340 meeting hours, on 56 days were held. The Secretariat assisted to improve the efficiency of the panel discussions. While co-assessors were allowed to discuss off-meeting, all gradings and outcomes of discussions were reported to the full panel for endorsement. Co-assessor discussion is similar to discussions between panel members at the margin of physical meetings, the UGC says.

"The UGC is satisfied with the process," says Sir David, who had a role in RAE 2014. "I can compare both exercises and they both are rigorous in assessment and meet the international standard."

All panels are confident about the rigorous, robust and transparent process and the accuracy of the results, Professor Brink says, adding they all feel assured that the results of RAE 2020 stand up to scrutiny internationally.



UGC Secretariat RAE 2020 team.

The RAE 2020 should not be read as a simplistic university ranking or league table because it does not reflect the universities' distinct missions, roles, histories, and their particular areas of strength, says Sir David.

Echoing Sir David, Professor Brink says the submissions by universities differed widely. "Universities made submission to different UoAs and different number of UoAs. For instance, the Education University of Hong Kong submits to the education panel, but not necessarily the Hong Kong University of Science and Technology," Professor Brink says. "We also need to look at the size of the submissions - i.e. how many academics a university submitted into any particular UoA."

#### How should the public read the results?

The research submissions are assessed against a 5-point scale. The qualitative definitions of the 5-point scale run from the highest level of 4 star, which means 'world leading', indicating that a submission establishes an agenda or essential point of reference, great novelty, new paradigm or concepts for research that everyone in the discipline must consider; to unclassified.

The guidelines and working methods were published by 2018 after extensive consultation with the universities and the panels. "The universities were parties to the agreement that these guidelines, methods and definitions would be used in the assessment," says Professor Brink. "In each of the three elements: research outputs, impact and environment, there's a formal definition [of what each level means]. Take the research outputs in mathematics as an example, the submissions were read by mathematicians who judge them in terms of such criteria as originality, significance in the field and rigour in research methods. The same process was applied to the assessment of impact and environment."

On how the public should read the results, "they should begin by asking questions in terms of the disciplinary areas, which are the UoAs," Professor Brink notes. "Then when you look at the results, you will understand which university does/ specialises in the research in this field of work, what is the size of the research work they're doing in terms of the number of staff committed, and what is the evaluation of their work."



Online media interview with Professor Sir David Eastwood and Professor Chris Brink.



UGC Secretariat staff managing panel assessment meeting during the COVID pandemic.



UGC Conf Suite

The RAE 2020 is probably the world's first research performance assessment of public universities from one jurisdiction conducted fully online successfully.