

**Views of The Hong Kong Polytechnic University to the Education Panel on
"為進一步支持高等教育界研究工作提供的新資源及研究資助局的撥款政策"
(February 2019)**

Noted that the Task Force that invited by the CE and convened by Prof. Tsui Lap-chee on Review of Research Policy and Funding was released in September 2018, and the goal of the review is to ensure quality and excellence of research undertaken by the higher education sector which can meet the needs of and be translated into competitive social and economic advantages for Hong Kong. We thank Prof. Tsui and his team in conducting the Review and putting much efforts in collecting views, comments and feedback from academics, researchers, administrators, industry and other relevant stakeholders in the consultation exercise. Our views on the above subject are given mainly based on the recommendations of Prof. Tsui's Review Report.

The Hong Kong Polytechnic University (PolyU) welcomes the seven recommendations proposed in the Review Report on Review of Research Policy and Funding (September 2018). The recommendations made by the Task Force are timely and comprehensive in shaping Hong Kong's future research landscape.

We have the following views and suggestions:

Substantial increase in research funding

Recommendation 1 *The Government to provide new funding to support R&D with a view to doubling the overall competitive research funding in Hong Kong from the prevailing amount of about \$2 billion to \$4 billion per annum by 2022, including the doubling of RGC funding from \$1 billion to \$2 billion over the same period.*

- (a) To inject substantial new money into the REF to make up the shortfall due to the reduction in the annual rate of return, in order to sustain the current funding for research.*
- (b) To rationalize the use of different pots of REF for more effective and flexible deployment of funding resources.*
- (c) To boost private R&D expenditure and donations in the research community by setting up a Research Matching Grant Scheme for local degree-awarding institutions.*

- 1.1 We welcome the recommendations to inject substantial new money into the REF, emphasize impactful and translational research, provide new funding to support R&D with a view to doubling the overall competitive research funding in Hong Kong, boost private R&D expenditure and donations in the research community by setting up a Research Matching Grant Scheme and establish relevant funding schemes based on international practices. The direction to enhance applied research and boost research support from the private sectors is of paramount importance to the innovation and technology development of Hong Kong as well as PolyU.

- 1.2 We would like to advocate for more public funding for university research and less restraint on the use of research funding, as prescriptive and regular monitoring mechanisms are counterproductive for an innovative research ecosystem.
- 1.3 We suggest striking a good balance among basic, translational and applied research, and the importance and benefits of applied and translational research should be recognized.

Sustainable strategies and support for research talent

Recommendation 2 To strengthen the research staff force and to nurture / sustain the development of research talent by introducing three fellowship schemes, namely a postdoctoral fellowship scheme, a research fellow scheme and a senior research fellow scheme under the RGC.

- 2.1 We welcome the recommendation of nurturing new research talent by introducing a postdoctoral fellowship scheme, a research fellow scheme and a senior research fellow scheme, but consider that:
 - (a) the provision of 50 places in each round of the postdoctoral fellowship scheme is too low. 50 postdoctoral fellows per year are too small for RGC in view that the applications will be divided into two broad streams (i.e. Science and Technology, including medicine and engineering; and Humanities, Social Science and Business Studies) and that ITF is giving 2 postdoctoral fellows per successful project; and
 - (b) both the awards of 10 – 15 RGC Research Fellows and up to 10 RGC Senior Research Fellows in each round of exercise are not enough in view that we have over 4,000 academics in the 8 Higher Education Institutions in Hong Kong.
- 2.2 With a view to strengthening Hong Kong's research excellence and potentiality by retaining and sustaining the development of outstanding and promising academics and researchers, especially those nurtured locally, we suggest providing more quotas to the above schemes and expanding the schemes to cover the hiring of research professorial staff. This will help to provide further incentives and retain research talent.
- 2.3 We suggest adopting the approach of the new Post-doctoral Fellowship Scheme by dividing applications into two broad streams (i.e. Science and Technology, including medicine and engineering; and Humanities, Social Science and Business Studies) for the other two new fellowship schemes, i.e. a research fellow scheme and a senior research fellow scheme, under the Hong Kong Research Grants Council. This is to ensure the balanced development and nurturing of research talent for different disciplines and is also in line with the other recommendation to organize the new overarching research steering council into streams by major disciplines.

Better efficiency and effectiveness in the use of Competitive Research Funding

Recommendation 3 RGC's Review (Phase II) to include technical aspects such as time/commitment of Principal Investigators, quality of assessment, monitoring processes and project renewal.

We welcome the recommendation of the RGC's Review that is taking place to include technical aspects. The Phase 1 Review, completed in May 2017, had examined macro issues such as the portfolio balance of the research funding schemes administered by the RGC, the RGC's structure and good practice in overseas funding agencies. However, these were not addressed in the report. We have the following suggestions:

- 3.1 To establish separate funding bodies, namely Science Research Funding Committee and Social Science Research Funding Committee, under the Hong Kong Research Grant Council following international practice. This practice is very common in Europe, US and China. For example, in the UK, it has Economic and Social Research Council (ESRC) and Engineering and Physical Sciences Research Council (EPSRC) whilst in China it has Natural Science Funding and Social Science Research Funding Committees. The rationales for this include:
 - (a) to place important emphasis on developing Hong Kong's soft power related to social science research (humanities, business and service sector development);
 - (b) to avoid unbalanced distribution of research funding between disciplines; currently, the social science research is evaluated together with science disciplines when it comes to competitive research funding allocations; and
 - (c) Hong Kong is known for its service economy (which leads the world in many respects); however, the research funding allocated to support service sectors research has been limited over the years, which can be detrimental to the development of the service industries in Hong Kong in the future.
- 3.2 There should be sustainable funding support for Humanities research. We suggest that there should be more earmarked funding for the Humanities and Social Science panel which has a significantly lower success rate than all other RGC panels, and that there should be a mechanism to prevent penalizing the Humanities disciplines in terms of research funding since Humanities disciplines are relatively difficult to attract private research funding given that most of our outputs are intangible and are not able to be commercialized. The same applies to measuring our social impact. On measuring impact factor, the need of disciplines that do not measure impact through scientific databases, such as Chinese Culture, should be taken into account.
- 3.3 The characteristic of Design discipline should be taken into consideration under different category, and new fund for "high-risk and breakthrough" design research should be provided as this is particular important and significant for design areas.

- 3.4 Although now the UGC (and RGC) has panels to take care of humanities and design related areas, expertise for review and giving advice to the UGC/RGC is deficient, including local experts. Most of the time, UGC still uses the convention academic way or general humanities experts to handle design research matters. The selection of the external reviewers by the Sub-panel members is deficient since there is no sub-panel member with design research expertise. We suggest including one to two local leading academic persons in design related areas.

Strengthening the effectiveness of the R-Portion

Recommendation 4 The UGC to conduct a comprehensive and holistic review on the R-portion including the issue of “on-costs” (indirect cost).

- 4.1 We welcome the review of R-portion especially whether on-costs are adequately covered.
- 4.2 We suggest UGC to form review panels with representatives from each concerned universities, not by the current Task Force, which is very much biased towards basic physical science, and to include other government funding schemes, such as the ITF, as well as overseas competitive funding schemes in the calculation of the R-portion.

Recommendation 5 To incentivize cross-institutional/cross-disciplinary collaborations by providing sustainable support.

The UGC to rationalize and/or review the existing three funding schemes under the RGC targeted for research with substantial impact, i.e. CRF, TRS and AoE, and consider the possible combination of them to form a new scheme to, in addition to catering for the existing and future needs, support proposals from research institutes set up by universities as well as research incentives of strategic priorities.

- 5.1 To incentivize cross-institutional/cross-disciplinary research, we suggest RGC:
- (a) to expand its scope to include the cross-border research, especially with the Great Bay Area (Guangdong, Shenzhen), and other regions in China like Taiwan, Shanghai, Beijing, as well as NSFC;
 - (b) to set up some international collaboration schemes, which may be beneficial for researchers to join international consortiums or involve in large multi-sites international projects;
 - (c) to introduce a scheme for researchers to purchase state of the art and really big pieces of equipment that different universities can share their usage;
 - (d) to extend the length of ECS and GRF and increase the size of these grants as it will allow researchers to answer bigger/more important research questions; and
 - (e) to encourage the collaboration of top researchers with different background and from different disciplines to tackle some "blue sky" or "wicked" problem is important and may lead to large breakthroughs and step changes.

Coordination among different research funding bodies

Recommendation 6 *As a start, to strengthen and enhance the coordination among different funding bodies via the setting up of an internal government liaison group to regularly share their research directions and coordinate among them issues of common interests on research.*

To consider, in the long run, setting up an overarching research steering council to formulate long-term strategic plan on research policy and funding; to standardize the operating procedures of various funding bodies to enhance efficiency and effectiveness; and to better integrate research into the innovation ecosystem. To cater for different modes of research among disciplines, consideration should be given for the council to be organized into streams by major discipline and should vertically integrate basic, translational and applied research to ensure a holistic approach to research funding policy.

- 6.1 We trust that the proposals of rationalization and possible combination of existing funding schemes under the RGC and the setting up of an internal government liaison group (and a research steering council in the long run) will alleviate resource overlapping and drive Hong Kong's research landscape in the right direction, and help promote academic-industry collaboration, as well as further the advancement of knowledge beyond the academia in the longer term.

Recommendation 7 *To adopt a common research identity, e.g. the Open Research Contributor ID (ORCID), for grants applications.*

In the long run, to set up a central database on research to serve as a depository of information on researchers, reviewers, projects, application and grants records for the benefit of the funding bodies and researchers.

- 7.1 We welcome the recommendation to adopt a common research identity for grants applications and set up a central database on research.