

香港特別行政區政府

創新及科技局

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By email

12 March 2020

Mr Daniel SIN
Clerk to Panel on Information Technology and Broadcasting
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Mr SIN,

**Additional Agenda Item for Discussing
Innovation and Technology Development in Hong Kong**

Hon Elizabeth Quat wrote to the Panel Chairman on 6 January 2020, proposing an additional agenda item to discuss Hong Kong's innovation and technology ("I&T") overall development strategy and consolidation of resources. At the invitation of the Panel Chairman, I provide a written reply to Hon Quat's letter as follows.

In the Policy Address delivered in October 2017, the Chief Executive announced that the Government would step up its efforts to develop I&T in eight major areas, including: increasing resources for research and development ("R&D"); pooling together technology talent; providing investment funding; providing technological research infrastructure; reviewing existing legislations and regulations; opening up government data; Government leading changes to procurement arrangements; and strengthening popular science education. Since then, the Government has been actively working on various areas. The Steering Committee on Innovation and Technology, chaired by the Chief Executive, was also established to monitor regularly the implementation of the relevant initiatives and measures.

The Government is committed to increasing resources for R&D. We have set a goal to double the Gross Domestic Expenditures on R&D ("GERD") as a percentage of the Gross Domestic Product ("GDP") to 1.5% by the end of the current Government's five-year term of office. To achieve this goal, the Government has

launched various new initiatives in respects of R&D investment, talent, infrastructure, as well as promoting research cooperation. These include:

R&D investment

- We gradually increase public R&D investment, at the same time encouraging private enterprises to conduct more R&D activities. The various schemes under the Innovation and Technology Fund (“ITF”) finance projects that can contribute to I&T upgrading and industry development in Hong Kong, encourage private enterprises to invest in R&D and applied technology, and commercialise outstanding local R&D achievements. The ITF has significantly increased its financial support from \$730 million in 2013-14 to over \$2 billion in 2018-19. We also injected \$10 billion to the ITF in July 2018 with a view to continuing support for more R&D activities. From 2016 to 2019, the ITF had funded around 8 500 projects with a total funding commitment of about \$7.73 billion. Compared to the previous 4-year period (2012 to 2015), the number of projects funded and total funding commitment have increased by two and 1.4 times respectively. Also, the funding commitment for R&D projects has increased by 70%.
- To encourage more enterprises to conduct R&D locally, starting from 1 April 2018, we provide an additional tax deduction for expenditures incurred in qualifying R&D activities by enterprises. The deduction is 300% for the first \$2 million of the aggregate amount of qualifying R&D expenditures incurred by enterprises and 200% for the remaining amount. There is no cap on the amount of the relevant tax deduction and it applies to all enterprises. This initiative provides incentive for encouraging more enterprises to conduct R&D work in Hong Kong.
- To support R&D as well as realisation of R&D results, we have, starting from 2019-20, doubled the funding support for the Technology Transfer Offices of designated universities, the Technology Start-up Support Scheme for Universities, the State Key Laboratories and the Hong Kong Branches of Chinese National Engineering Research Centres.
- We provide 40% of cash rebate to designated applied R&D projects conducted by eligible enterprises through the R&D Cash Rebate Scheme (“CRS”) under the ITF. From 2016 to 2019, over 1 220 cash rebate applications were approved for about 740 companies, involving a total funding of about \$430 million. Compared to the previous 4-year period (2012 to 2015), the number of approved applications and companies involved have

increased by 35% and 25% respectively, and the total funding has almost been doubled.

- As announced in the Chief Executive’s 2018 Policy Address, the recommendations made by the Task Force on Review of Research Policy and Funding were accepted, with a sum of \$20 billion injected into the Research Endowment Fund (“REF”) to substantially increase research funding for post-secondary institutions and to provide a more stable source of research funding. In addition, the Research Grants Council (“RGC”) implemented in August 2019 the \$3-billion, three-year Research Matching Grant Scheme, with a view to encouraging the private sector to provide universities with funding for R&D as well as donations.
- Since mid-2019, the Ministry of Science and Technology (“MOST”), the National Natural Science Foundation of China and the relevant government agencies at provincial or municipal level in the Mainland have progressively approved funding to local universities and R&D institutions to conduct R&D projects or set up laboratories. Some of the approved funds have been successfully remitted across the border. In addition, in collaboration with MOST, we launched the “Mainland-Hong Kong Joint Funding Scheme” in April 2019 to encourage scientific research cooperation between Hong Kong and different provinces in the Mainland. Both sides are now assessing the 113 applications received under the scheme, and are discussing and preparing for the 2020 scheme in parallel.

Technology Talent

- Launched in mid-2018, the Technology Talent Admission Scheme provides a fast-track arrangement to admit technology talent to conduct R&D in Hong Kong. As at end 2019, the ITC has allotted 310 quotas and the Immigration Department has approved 99 employment visa/entry permit applications in accordance with the relevant quotas. To support Hong Kong’s technological development, we have, starting from late January 2020, extended the applicable technology areas of the scheme from seven (i.e. biotechnology, artificial intelligence, cybersecurity, robotics, data analytics, financial technologies and material science) to 13 (the six new areas are 5G communications, Internet-of-Things, integrated circuit design, microelectronics, digital entertainment and green technology), and broadened the coverage to all companies undertaking R&D activities in these 13 areas in Hong Kong. The enhancements would expedite the admission of talent from different parts of the world and encourage exchanges between local and non-local talent.

- The Government rolled out the Postdoctoral Hub (“PH”) in August 2018 to, together with the extant Researcher Programme (“RP”), subsidise eligible companies and organisations in recruiting postdoctoral talent and university graduates to engage in R&D work. As at end 2019, the RP has funded about 4 700 researcher positions with a total funding of around \$1.25 billion. The PH has approved over 860 applications involving a total funding of around \$500 million. The Government from time to time enhances the RP and PH, including increasing the monthly allowance and extending the maximum engagement period. At present, the maximum monthly allowances for researchers with a Bachelor’s and a Master’s degree are \$18,000 and \$21,000 respectively; and the maximum monthly allowance for each postdoctoral talent is \$32,000. The maximum engagement period for each researcher or postdoctoral talent is 36 months. We have, from 9 March 2020, further expanded the scope of the above two programmes to all technology companies conducting R&D activities in Hong Kong. Moreover, the 2020-21 Budget announced that the two programmes will be consolidated with a view to providing more flexibility for eligible organisations to engage R&D talent.

- The Hong Kong Science and Technology Parks Corporation (“HKSTPC”) is constructing the InnoCell adjacent to the Hong Kong Science Park (“Science Park”), offering about 500 residential units with ancillary facilities such as co-working space, with a view to fostering interaction and exchanges among talent and increasing the competitiveness of Hong Kong in terms of attracting Mainland or overseas I&T specialists. The construction of InnoCell is expected to be completed by end of this year.

- In addition, the Government has implemented two measures benefitting research talent of all disciplines, including those related to I&T –
 - A \$3 billion injection into the REF. The investment income of such injection will be used to provide a full tuition waiver for local students of the University Grants Committee-funded Research Postgraduate programmes during the normative study period. The scheme has been implemented since the 2018/19 academic year and has benefited about 2 000 students.

 - The RGC launched three Fellowship schemes in the 2019/20 academic year to nurture and retain research talent, and support the sustainable development of the research ecosystem

in Hong Kong. The Government has set aside about \$190 million recurrent expenditure per year for these schemes.

R&D Infrastructure

- The Government has earmarked \$10 billion for pressing ahead with the establishment of the two *InnoHK* research clusters in the Science Park – “*Health@InnoHK*” and “*AIR@InnoHK*”. A total of 65 proposals from world top-notch universities and research institutions have been received and are now under process. The first batch of R&D laboratories are expected to be set up progressively this year. To further promote global R&D collaboration in Hong Kong, we will explore the setting up of a third *InnoHK* research cluster.
- The Government announced in the 2018-19 Budget that \$3 billion would be allocated to HKSTPC for developing R&D-related facilities. Good progress has been made. For example, HKSTPC expanded the Robotics Catalysing Centre and is developing a biobank in the Science Park. On the other hand, Stage 1 of the Science Park Expansion Programme has been completed and earmarked for use by *Health@InnoHK* and *AIR@InnoHK*, as well as Incubation Centre, Robotic Catalysing Centre, etc.
- HKSTPC will kick-start Phase 2 of the Science Park Expansion Programme, and has commissioned a consultant to conduct a master planning study. The 2020-21 Budget also announced to earmark \$3 billion for the expansion programme. HKSTPC has preliminarily proposed to add in the Science Park two annex buildings, and specialised laboratories at podiums.
- The Government is actively developing the 87-hectare Lok Ma Chau Loop into the “Hong Kong-Shenzhen Innovation and Technology Park” (“the Park”) as a key base for co-operation in scientific research. We are taking forward the relevant planning and infrastructure works, and will seek funding approval of the Legislative Council in due course so that construction works for the Main Works Package 1 and first batch of superstructures of the Park can commence as soon as possible.
- The government has earmarked \$5.5 billion for building Cyberport 5 to attract more powerful technology companies and start-ups to settle in, and also provide a way for young people to join the I & T sector.

According to the report “Hong Kong Innovation Activities Statistics 2018” newly released by the Census and Statistics Department, the GERD of

Hong Kong in 2018 amounted to \$24.5 billion, representing an increase of 10% from 2017. The GERD as a ratio to the GDP in 2018 was 0.86%, reflecting a continued rise in R&D activities. We expect the effect of the aforementioned measures will be realised gradually in subsequent years, contributing to a further increase in the GERD.

We also note that a recent research report recommends establishing an overarching research and development foundation to create better alignment and enhancement of R&D fundings from various Government departments. At present, various government funding schemes have different policy objectives and backgrounds. Their different characteristics, objectives, funding criteria and application time can cater for different applicants. For example, generally speaking, a significant share (over 80%) of the ITF is used to fund enterprise-led projects, which, apart from research projects, include other non-research projects such as recruitment of researchers, fostering of technology adoption and promotion of technology culture. Only a small portion subsidises research projects initiated by universities. The funding considerations for these two kinds of projects are not the same and it may not be appropriate for them to be administered by a single department. In fact, university researchers are used to applying funding from different departments. That said, in response to the recommendations made by the Task Force on Review of Research Policy and Funding, a common researcher identity, namely the Open Research Contributor ID (ORCID), had been adopted for RGC grants applications, and a liaison group encompassing agencies administering research funding schemes has been established within the Government. The liaison group will have regular exchanges on research directions, research policies and funding matters so as to strengthen and improve coordination between different funding agencies.

The Innovation and Technology Bureau will continue to proactively strengthen the ties with various stakeholders, including the relevant Government departments, R&D Centres, universities, HKSTPC, Cyberport, Hong Kong Productivity Council, etc. We will revisit the work priorities and interactions of the various institutions from time to time, so as to ensure that the institutions can make good use of their resources, complement each other and create synergy, with a view to promoting I&T development of Hong Kong in unison.

Yours sincerely,



(Sandy CHEUNG)

for Secretary for Innovation and Technology