

By Email and Fax (2978 7569)

26 June 2018

Mr Desmond Lam,
Clerk to Panel on Commerce and Industry,
Legislative Council Complex,
1 Legislative Council Road,
Central, Hong Kong.

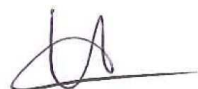
Dear Mr Lam,

**Panel on Commerce and Industry
Meeting on 20 March 2018**

Injection into the Innovation and Technology Fund

At the meeting held on 20 March 2018, the Administration was requested by Members to provide supplementary information relating to the injection into the Innovation and Technology Fund. We are pleased to provide the information as enclosed for Members' reference.

Yours sincerely,



(Bryan Ha)
for Commissioner for Innovation and Technology

cc ITB (Attn: Mr Ricky CHONG)
ITC (Attn: SEO(A))

Commerce and Industry Panel
20 March 2018

Injection into the Innovation and Technology Fund
Follow-up action – Administration's Response

- (a) the improvement measures to the application and vetting procedures for the various funding programmes under the Innovation and Technology Fund (“ITF”), including setting up a centralised frontline office to promote the funding programmes and provide a one-stop service to assist SMEs in their submission of applications for the various programmes**

To facilitate the submission of applications by organisations, the Innovation and Technology Commission (ITC) provides application guidelines and enquiry hotline services for various funding schemes under the ITF. We have also been constantly enhancing our online application system to facilitate organisations to submit applications. To facilitate project assessment, the professional staff of ITC have also been arranging meetings with enterprises on a need basis. As regards unsuccessful applications, applicants will be briefed on the reason(s) for rejection and comments from the assessment panel to facilitate re-submission of applications.

To further assist enterprises including SMEs in applying for funding under the ITF, we published a booklet “Technology Funding at a Glance” to provide an overview of the different technology funding schemes (including ITF funding schemes) in late 2017. In addition to the continued operation of the existing designated hotline for the Technology Voucher Programme (TVP), ITC also plans to set up a one-stop telephone enquiry service for other funding schemes under the ITF, to facilitate applicant organisations to enquire about the details of each funding scheme. We will continue to promote the funding schemes under the ITF through various channels such as universities, industry organisations and the ITF's website. For example, we have so far organised 60 briefing sessions on the TVP.

In addition, the Trade and Industry Department's Support and Consultation Centre for SMEs and other quasi-Government organisations also provide services and information to SMEs. For example, the SME One of the Hong Kong Productivity Council provides information on various funding schemes in Hong Kong and the Mainland to SMEs. Its website also provides hyperlinks to the funding schemes to facilitate SMEs to get more details about the schemes.

- (b) whether key performance indicators would be set to evaluate how effectively each funding programme under ITF was achieving its key objectives, as well as the benefits brought about to Hong Kong economy as a whole, in particular the effectiveness in attracting overseas talents to Hong Kong and grooming local talents**

Each of the funding schemes under the ITF has its specific objectives and target areas and the ways to evaluate their effectiveness also vary. For example, under the Technology Start-up Support Scheme for Universities, funded start-ups are required to submit annual reports to ITC with details on their business development, including commercialisation details of their research and development (R&D) results, and information such as the number of patent applications filed and income from R&D projects, etc. The concerned universities are also required to report to ITC their observations and assessment on the performance of their start-ups every year. In addition, we will collect data on patents successfully acquired through the Patent Application Grant to assess its effectiveness.

However, it is rather difficult to measure the effectiveness of some ITF funding schemes. For instance, platform projects under the Innovation and Technology Support Programme aims to benefit the whole industrial sector or a large segment of that sector. They generally take longer time and require further downstream R&D before transforming into products. The effectiveness of such projects in achieving their pre-defined objectives and in bringing benefits to Hong Kong economy as a whole cannot be effectively evaluated by performance indicators such as the number of products, business turnover, etc. We will continue to work with applicant organisations such as universities to explore ways to gather more information for evaluating the effectiveness of different schemes.

The Internship Programme under the ITF provides funding support for ITF recipients as well as incubatees and innovation and technology (I&T) tenants of the Hong Kong Science and Technology Parks Corporation (HKSTPC) and Cyberport to recruit up to two local graduates as interns for conducting R&D work. Since the launch of the programme in 2004, we have supported some 3 200 interns, involving funding of over \$710 million. Some 70% of interns who have completed their internship either found a job or indicated interest in pursuing a career in I&T.

To nurture and bring together more technology talent, we have earmarked \$500 million under the ITF to launch a five-year pilot Technology Talent Scheme in the third quarter of 2018. The scheme includes the Postdoctoral Hub Programme, and the Reindustrialisation and Technology Training Programme. The former provides ITF recipients as well as incubatees and I&T tenants of HKSTPC and Cyberport with funding to recruit up to two postdoctoral talent for carrying out R&D work. The

latter subsidises local enterprises on a 2:1 matching basis for training staff in advanced technologies, especially training related to “Industry 4.0”. Upon the launch of the scheme, we will collect data to assess their effectiveness in nurturing and attracting talent.

- (c) **by drawing reference from the successful experience of Israel and Singapore, which had high levels of R&D investment as a percentage of GDP, the measures to further encourage investment in R&D, including:**

- (i) considering the setting of a target of R&D investment as a percentage of gross domestic product (“GDP”)**

I&T development is among the top policy priorities of the Government. In her Policy Address in October 2017, the Chief Executive has set out eight major areas to spearhead I&T development in Hong Kong, among which is increasing resources available for R&D. The Chief Executive has also set a goal to double the Gross Domestic Expenditures on R&D as a percentage of the Gross Domestic Product to 1.5% by the end of the current Government’s five-year term of office.

- (ii) attracting multinational corporations to set up their R&D centres in Hong Kong**

The Government has in recent years invested substantial resources through a variety of targetted measures to enhance Hong Kong’s I&T ecosystem, with a view to attracting top-notch research institutions and enterprises to set up in Hong Kong.

To attract more R&D investment by private sector in Hong Kong, we will provide enhanced tax deduction for R&D expenditure. The deduction will be 300% for the first \$2 million of the qualifying expenditure of the enterprise and 200% for the remaining amount. There is no cap for the deduction. The relevant amendment bill was introduced into LegCo on 2 May 2018 and if the legislative work progresses smoothly, it will be implemented this year and be applicable to qualifying R&D expenditure incurred by enterprises on 1 April 2018 and thereafter.

In addition, we have earmarked \$10 billion in the 2018-19 Budget to support the establishment of two world-class research clusters on healthcare technologies and on artificial intelligence and robotics technologies at the Hong Kong Science Park. We aim to attract the world’s top universities, research institutions and technology enterprises to set up research operation at the clusters and conduct collaborative R&D work. Subject to the approval of the Legislative Council’s Finance Committee, the \$10 billion funding earmarked will be used to provide

financial support to research centres/laboratories set up by non-profit-making institutions at the clusters.

The above initiatives will help to attract research institutions and multinational corporations to conduct R&D in Hong Kong.

(iii) retaining local R&D deliverables in Hong Kong's industry chain

The ITF actively promotes and supports applied R&D projects which contribute to the upgrading of technology levels of local industries, as well as encourages and subsidises projects with greater potentials for realisation/commercialisation. At present, applicant organisations are required to provide a holistic plan on realisation/commercialisation in their applications for evaluation by the relevant assessment panels. Applicant organisations are required to provide information to ITC upon completion of the projects to facilitate evaluation on the effectiveness of the funded projects.

Many ITF-funded projects have successfully retained R&D deliverables in Hong Kong's industry chain. Some examples include -

- (a) The Logistics and Supply Chain MultiTech R&D Centre¹ has collaborated with the Airport Authority Hong Kong to develop a barcode and radio-frequency identification scanner, which allows passengers to print luggage tags at home and self-check-in luggage, reducing waiting time at the check-in counter. The system has already been adopted by 31 airlines, including a major local airline;
- (b) Using near-infrared spectroscopy analytics technology, the Hong Kong Institute of Biotechnology has developed rapid testing of traditional Chinese medicine (CM) raw materials as well as analysis and identification of CM powder and its mixture to prevent substandard products. The technology has been successfully transferred to local CM manufacturers and applied in the production of CM products;
- (c) In recent years, the Nano and Advanced Materials Institute has, in collaboration with several enterprises, successfully developed different types of new nanofiber materials, ranging from batteries to healthcare products. Among which, highly breathable, bacteria-killing and high-performance mask products developed

¹ Formerly known as Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies

by Hong Kong businesses and manufactured locally are already brought to the local market;

- (d) The Hong Kong Research Institute of Textiles and Apparel has been building up its competence in textile recycling technologies. The Centre has recently developed an enclosed and dry industrial system to transform textiles waste into fibres. The recycled fibres generated are suitable for producing various textiles products such as yarn, fabric, and garments. Leveraging on this new technology, a local company is planning to establish a production line for recycled yarn in Hong Kong in late 2018;
- (e) In partnership with a local electronics technology company, the Hong Kong Applied Science and Technology Research Institute has developed the 3D conversion technology which generates contents for different kinds of spectacles-free 3D displays. This technology can be applied to the local retail and broadcast industry and has been successfully used in some commercial products, such as 3D mosaic walls and 3D flat-panel computer screens; and
- (f) The Automotive Parts and Accessory Systems R&D Centre has been engaged in developing Electric Vehicle (EV) charging solutions, as well as assisting local enterprises in commercialisation through technology transfer in recent years. With the Centre's technical support, the Hong Kong Productivity Council established partnership with a local EV charging service provider last year, collaborating in the design, development, operation, maintenance and promotion of EV charging solutions. So far, the EV charging stations have been installed in 25 locations.

To strengthen the R&D capability of Hong Kong, the Government announced in the 2018-19 Budget the provision of a \$10 billion funding to HKSTPC. \$3 billion of which will be set aside for HKSTPC to make available a host of research-related facilities in the fields of healthcare and AI/robotics technologies to foster research work. These facilities, which range from laboratory and facilities for early stage research to small batch experimental production facilities, would further enhance Hong Kong's R&D capabilities and perfect the value chain of the industries.