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Panel on Commerce and Industry

Meeting on 20 March 2012

**Updated background brief on
progress on improving the Innovation and Technology Fund**

Purpose

This paper provides background information on the review of the mechanism of the Innovation and Technology Fund (ITF) and a summary of views and concerns expressed by Members on related issues.

Background

2. Innovation and technology are drivers for economic development and competitiveness. They help improve the efficiency and performance of enterprises which in turn contribute to the sustainable growth of an economy. The establishment of the ITF underlines the Government's commitment to its policy and strategy for promoting innovation and technology in Hong Kong. The ITF aims to provide funding support for projects that contribute to innovation and technology upgrading in manufacturing and service industries, so as to increase productivity and enhance competitiveness. It was set up as a statutory fund under the Public Finance Ordinance (Cap. 2) by resolution of the Legislative Council on 30 June 1999. On 9 July 1999, the Finance Committee approved the proposed injection of HK\$5 billion into the ITF which came into operation on 1 November 1999. The ITF is currently administered by the Innovation and Technology Commission and comprises the following four programmes:

- (a) Innovation and Technology Support Programme (ITSP) – for mid-stream/downstream research and development (R&D) projects mainly undertaken by local public research institutes (including R&D Centres, universities and Hong Kong Productivity Council).

There are broadly two categories of projects:

- (i) platform projects which require industry contribution of at least 10% of the project cost. The industry sponsors (minimum of two) will not own the project intellectual property (IP); and
- (ii) collaborative projects which require industry contribution of at least 30% (for R&D Centre projects only) or 50% (for non-R&D Centre projects) of the project cost. The industry sponsor(s) will be entitled to utilize the project IP exclusively for a defined period or own the project IP;
- (b) University-Industry Collaboration Programme (UICP) – for projects undertaken by a local university in collaboration with a company in conducting R&D. The company contributes no less than 50% of the project expenditure and owns the project IP;
- (c) Small Entrepreneur Research Assistance Programme (SERAP) – operates as a matching grant for small and medium enterprises (SMEs) under the size of 100, i.e. company contributing 50% of the project cost. The IP will be owned by the company. Unlike collaborative projects in (a) and (b) above, the company will be required to pay back the funding grant from the ITF as and when they make profits from the project; and
- (d) General Support Programme – for non-R&D projects and activities, e.g. surveys, seminars and competitions. A minimum of 10% industry contribution from at least two industry sponsors is required.

3. As at the end of December 2011, ITF has funded more than 2 600 projects at a total ITF funding of \$6.2 billion. Taking into account the accumulated income over the years (including investment income from the Exchange Fund), the uncommitted funding balance (i.e. available to support new ITF projects) is about \$2 billion.

4. Following the operation of the ITF after over ten years, the Administration commenced a full review of the ITF funding mechanism in view of the feedback from R&D Centres and other stakeholders on the difficulties encountered in meeting the ITF funding and procedural requirements. The Administration had put in place improvements to address the following issues –

- (a) whether the existing ITF funding mechanism gave rise to fragmented R&D work by different parties and hence not sufficient synergy;
- (b) whether the existing funding arrangements under ITF were too restrictive to sustain the momentum of the local research community and to push for commercialization;
- (c) whether the present requirements on industry contribution and benefit sharing arrangements were too straight-jacketed;
- (d) whether there were sufficient incentives in the ITF framework to motivate universities, R&D Centres and the industry to collaborate more in applied R&D;
- (e) whether the current project vetting requirements and procedures were too complex and cumbersome to facilitate worthy projects to be undertaken quickly; and
- (f) whether ITF could dovetail with the various Government-funded research programmes to create greater synergy.

Previous discussions

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5. In the past years, the Panel on Commerce and Industry (the Panel) expressed concern over the pace of commercializing the R&D deliverables under ITF projects, particularly in the context of discussing the Annual Progress Report of the R&D Centres at the Panel meeting on 15 June 2010. Some Panel members urged the Administration to streamline the relevant procedures and explore possible areas of improvement. In particular, the following suggestions were raised –

- (a) wider use of research deliverables in the public sector should be encouraged, such as the use of light-emitting diode (LED) lighting in public housing estates of the Housing Authority and the use of radio frequency identification technology in the medical sector, the logistics trade (e.g. Hong Kong International Airport), and retail chain stores for stock-taking and inventory management;
- (b) facilitating the promotion of research deliverables by providing a reasonable number of prototypes for trial use by government

departments (e.g. Highways Department and Education Bureau) and public organizations (e.g. Hospital Authority and Airport Authority);

- (c) apart from conducting trial schemes in government departments and public organizations, R&D Centres should also enlist the interest of trade associations in promoting trial of the research deliverables in the private sector; and
- (d) extending the scope of the ITF to provide sustainability and bringing a wider positive impact to the community.

6. When discussing the creation of a favourable ecological environment to facilitate the realization of R&D results at the Panel meeting on 16 November 2010, members noted the major proposed measures to be undertaken by the Administration in the review of the ITF. These measures included extending the scope of ITF funding to cover production of tools/prototypes/samples and conducting of trial schemes in the public sector, providing "follow-on" funding, extending the scope of ITF to provide synergy and enhance impact, refining the current ITF project vetting criteria to give greater emphasis to relevant factors apart from scientific/technical considerations, reviewing the existing industry contribution models, making greater use of the General Support Programme, shortening the ITF process, aligning the ITF to meet long term development goals, and facilitating negotiations on IP rights and sharing to promote more R&D work.

7. Panel members expressed support for the Administration's proposal to refine the policy framework of the ITF. They also welcomed the Administration's plan to speed up the ITF funding process which had been a major obstacle to industry participation in R&D projects. Panel members also noted that in view of the rapidly changing global economic environment, the emergence of the Mainland as a major R&D investor and consumer, as well as the very robust technology advances, the Administration had refined the Government's policy framework for promoting innovation and technology development to ensure that it continued to support the policy direction, as well as provided the necessary impetus to meet the challenges ahead. The refined strategy included promoting collaboration among stakeholders for achieving greater synergy, creating an ecological environment that was conducive to the development of innovation and technology, refining the funding mechanism to encourage and select projects with greater prospect of realization/commercialization, facilitating the trial of R&D products (especially in the public sector) so that researchers and product developers could gain actual experience to fine-tune their products, motivating the private sector to invest more in R&D activities in Hong Kong, fostering a stronger innovation and technology culture in Hong Kong, and enhancing co-operation with the

governments, industry, and academic and research institutes in the Mainland. The Panel was generally in support of the Administration's refined strategy to create a favourable ecological environment which was conducive to the realization of R&D results in Hong Kong.

8. At the Panel meeting on 15 March 2011, the Administration briefed the Panel on the progress on improving the ITF and promotion of use of innovation and technology in the public sector. Panel members noted that various improvement measures, in particular the refined ITF project vetting criteria to give greater emphasis to relevant factors apart from scientific/technical considerations, had been finalized and incorporated into the new round of ITSP application exercise launched on 1 March 2011. In general, the Innovation and Technology Commission (ITC) aimed to complete the vetting process within four months after receipt of the applications. Panel members in general supported the improvement measures and the shortened ITF process.

9. On the front of promoting the use of innovation and technology in the public sector, Panel members noted that a number of projects were currently being explored. These projects included handy device for community nurses during home visits, LED streetlamp deployment on public roads of Hong Kong, ultimate e-book for e-learning, modified electric vehicle with enhanced battery management system, e-lock-based enabling technology for monitoring the container cargo transshipment process, multi-functional odour-control uniform and enhanced ductility and service life of galvanized structural steel members. In view that the realization and commercialization of R&D deliverables could bring about wide economic and social benefits to the community, Hon Emily LAU called on the Administration to further promote the use of innovation and technology in Government departments/bureaux.

10. At the Panel meeting on 19 April 2011, the Administration briefed members on the progress of the Administration's effort in promoting innovation and technology. Members noted that the General Support Programme (GSP) was the only programme under ITF catering for non-R&D projects that contribute to fostering an innovation and technology culture in Hong Kong (e.g. conferences, exhibitions, youth activities, etc.). ITC had conducted a comprehensive review on the GSP mechanism. Feedback in general was that the funding scope and guidelines of the GSP area was a bit restrictive/lengthy and as a result the number of applications had fallen in recent years. ITC would introduce various improvement measures to improve the situation, including devising clear marking scheme to enhance transparency and enable more speedy processing of the cases, removing restrictions considered no longer valid, widening targets of recipients, and conducting of more publicity.

11. Panel members also noted that apart from the GSP, ITC was also reviewing the UICP and SERAP under ITF to see if there were ways of enhancing them to bring about greater impact.

12. At the Panel meeting on 19 July 2011, members noted that as part of the efforts in developing R&D capability in Hong Kong, ITC had established the Internship Programme for organizations undertaking R&D projects funded by ITF. These organizations could take on local university graduates as interns under the Internship Programme and received funding support from ITF. In general, two interns could be recruited in an ITF project and ITF would provide a maximum monthly allowance of \$12,000 for interns with degrees. ITC had approved the recruitment of over 300 interns in the past two years. Some Panel members opined that the Administration should increase the maximum monthly allowance in order to attract high quality graduates to join the local R&D sector.

Recent developments

13. In the 2012-2013 Budget, the Financial Secretary (FS) proposed to enhance SERAP by increasing the funding ceiling for each project under SERAP from \$4 million to \$6 million. The Administration would also refine the operational details of SERAP and expand its scope of funding to support the R&D activities of SMEs. FS also proposed to increase the monthly allowance for each intern participated in the Internship Programme by nearly 20% to inspire more young people to engage in R&D.

Special Finance Committee meetings

14. At the special FC meetings to examine the Estimates of Expenditure 2012-2013 on 7 March 2012, Members raised questions on SERAP and the Internship Programme. The Administration advised that as at February 2012, SERAP had supported over 350 R&D projects with a total funding of about \$400 million. The number of SERAP applications was affected by various factors, including the overall economic situation and the development plans of individual companies. Although the number of applications in 2011 was lower than that in 2010, the number of applications approved was more or less the same. As there was no limit on the total amount of SERAP funding provided each year, the Administration welcomed applications from all quality projects. The Administration also advised that the Internship Programme had funded 863 intern positions in the past three years, of which 501 were first-degree graduates and the remaining 362 possessing a Master degree or above. Of the 253 interns who completed their internship in 2011, the Administration had received 95 evaluation reports. About 50% of the respondents said that they had secured R&D-related jobs, and more than 40% indicated that they planned to

either further their studies in relevant technology areas or continue with R&D work. Only around 10% of the respondents indicated that they had already switched to other sectors.

Latest position

15. The Administration will brief the Panel on 20 March 2012 on the budget initiatives on innovation and technology and testing and certification. Enhancement measures of the ITF will be covered.

Relevant papers

Resolution establishing the Innovation and Technology Fund passed by the Legislative Council on 30 June 1999

<http://www.legco.gov.hk/yr98-99/english/fc/fc/papers/pfc36ea2.pdf>

Paper for meeting of Finance Committee on 9 July 1999: FCR(1999-2000)36

<http://www.legco.gov.hk/yr98-99/english/fc/fc/papers/fc090736.htm>

Minutes of Finance Committee meeting on 9 July 1999

<http://www.legco.gov.hk/yr98-99/english/fc/fc/minutes/fcmn0907.htm>

Administration's paper on progress report on Research and Development Centres for 2009-2010 for the Commerce and Industry Panel meeting on 15 June 2010

<http://www.legco.gov.hk/yr09-10/english/panels/ci/papers/ci0615cb1-2191-6-e.pdf>

Administration's paper on interim report on the comprehensive review of Research and Development Centres for the Commerce and Industry Panel meeting on 15 June 2010

<http://www.legco.gov.hk/yr09-10/english/panels/ci/papers/ci0615cb1-2191-7-e.pdf>

Background brief prepared by the Legislative Council Secretariat for the Commerce and Industry Panel meeting on 15 June 2010

<http://www.legco.gov.hk/yr09-10/english/panels/ci/papers/ci0615cb1-2191-8-e.pdf>

Minutes of Commerce and Industry Panel meeting on 15 June 2010

<http://www.legco.gov.hk/yr09-10/english/panels/ci/minutes/ci20100615.pdf>

Administration's paper on review of operating costs of the Research and Development Centres for the Commerce and Industry Panel meeting on 16 November 2010

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci1116cb1-389-3-e.pdf>

Administration's paper on creation of a favourable ecological environment to facilitate the realization of research and development results for the Commerce and Industry Panel meeting on 16 November 2010

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci1116cb1-389-5-e.pdf>

Background brief prepared by the Legislative Council Secretariat for the Commerce and Industry Panel meeting on 16 November 2010

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci1116cb1-389-4-e.pdf>

Minutes of Commerce and Industry Panel meeting on 16 November 2010

<http://www.legco.gov.hk/yr10-11/english/panels/ci/minutes/ci20101116.pdf>

Administration's paper on progress on improving the Innovation and Technology Fund and promotion of use of innovation and technology in the public sector for the Commerce and Industry Panel meeting on 15 March 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci0315cb1-1531-3-e.pdf>

Background brief prepared by the Legislative Council Secretariat for the Commerce and Industry Panel meeting on 15 March 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci0315cb1-1531-4-e.pdf>

Minutes of Commerce and Industry Panel meeting on 15 March 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/minutes/ci20110315.pdf>

Administration's paper on progress report on the promotion of innovation and technology development in Hong Kong for the Commerce and Industry Panel meeting on 19 April 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci0419cb1-1893-5-e.pdf>

Updated background brief prepared by the Legislative Council Secretariat for the Commerce and Industry Panel meeting on 19 April 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/papers/ci0419cb1-1893-7-e.pdf>

Minutes of Commerce and Industry Panel meeting on 19 April 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/minutes/ci20110419.pdf>

Minutes of Commerce and Industry Panel meeting on 19 July 2011

<http://www.legco.gov.hk/yr10-11/english/panels/ci/minutes/ci20110719.pdf>

Administration's replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2012-2013: serial nos. CEDB(CT)052, CEDB(CT)053, CEDB(CT)054, CEDB(CT)056 and CEDB(CT)057

http://www.legco.gov.hk/yr11-12/english/fc/fc/w_q/cedb-ct-e.pdf

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