For discussion on 16 May 2017

Legislative Council Panel on Commerce and Industry

Implementation Progress of New Funding Schemes under the Innovation and Technology Fund

PURPOSE

This paper briefs Members on the implementation progress of various new funding schemes under the Innovation and Technology Fund ("ITF").

BACKGROUND

2. The Government established the ITF in 1999 to finance projects that contribute to innovation and technology ("I&T") upgrading and development in manufacturing and services industries in Hong Kong. There are a number of programmes under the ITF, each having its own objectives, scope, funding guidelines and modus operandi. They include –

- (a) the Innovation and Technology Support Programme ("ITSP") supports applied research and development ("R&D") projects;
- (b) the University-Industry Collaboration Programme supports R&D projects undertaken by private companies in collaboration with local universities;
- (c) the R&D Cash Rebate Scheme ("CRS") provides cash rebate to private companies for their expenditure in applied R&D projects funded by the ITF, and partnership projects funded entirely by these companies and undertaken by local universities or local public research institutions ¹. In 2012, the level of cash rebate was increased from 10% to 30%;

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Including the Hong Kong Applied Science and Technology Research Institute, Nano and Advanced Materials Institute, Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies, Hong Kong Research Institute of Textiles and Apparel, Automotive Parts and Accessory

- (d) the Public Sector Trial Scheme ("PSTS") provides funding to completed projects under paragraphs 2(a) and (b) above for producing prototypes or samples and conducting trials in the public sector;
- (e) the General Support Programme ("GSP") supports non-R&D projects for the upgrading and development of the local industries, as well as projects conducive to the promotion of an I&T culture in Hong Kong;
- (f) the Internship Programme supports R&D projects funded under programmes mentioned in paragraphs 2(a) and (b) above to recruit local graduates as interns, thereby encouraging local university graduates to pursue a career in I&T and nurture more I&T talents; and
- (g) the Patent Application Grant provides funding support for first-time patent applicants.
- 3. In 2015 and 2016, we introduced three new funding programmes and enhanced the CRS, Internship Programme and PSTS, with a view to strengthening the I&T ecosystem, encouraging more technology investment in the private sector, attracting more science, technology, engineering and mathematics ("STEM") graduates to pursue a technology career, and facilitating technology adoption in the community. These new and enhanced programmes include -
 - (a) introducing the Enterprise Support Scheme ("ESS") to encourage private enterprises to invest in in-house R&D work;
 - (b) introducing the Midstream Research Programme for Universities ("MRP") to encourage universities to conduct more theme-based midstream research in key technology areas;
 - (c) introducing the Technology Voucher Programme ("TVP") to encourage the use of technological services and solutions by local small and medium enterprises ("SMEs");
 - (d) increasing the level of cash rebate under the CRS (see paragraph 2(c) above) to 40%;

Systems R&D Centre, Hong Kong Productivity Council, Vocational Training Council and the Hong Kong Institute of Biotechnology.

- (e) expanding the PSTS (see paragraph 2(d) above) to cover incubatees of the Hong Kong Science and Technology Parks Corporation ("HKSTPC") and Cyberport; and
- (f) extending the Internship Programme (see paragraph 2(f) above) to cover incubatees and SME tenants of the HKSTPC and Cyberport.
- 4. We briefed Members on these new initiatives at the Panel meetings on 16 December 2014 and 17 May 2016.

ESS

- 5. Launched in April 2015, the ESS aims to support enterprises to conduct in-house R&D in Hong Kong. Companies registered in Hong Kong, regardless of their sizes, are eligible to apply. Funding of up to \$10 million for each approved project will be provided on a dollar-for-dollar matching basis. There is no requirement for recoupment of Government's contribution and the intellectual property rights of the projects will be owned by the recipient companies.
- 6. We have set up an assessment panel to consider the applications. The assessment panel comprises experts from the academia, industry, private equity and capital market. Applicants, upon submission of all the required information and documents, could in the fastest cases be notified of the vetting results in around 2 months. So far, we have processed 261 applications.
- Among the 261 applications, 32 were approved, 88 were withdrawn by the applicants and 141 were not recommended for funding support. The approved projects involved a total cost of \$210.9 million, comprising private sector investment of \$114.3 million and ESS dollar-for-dollar funding of \$96.6 million. Funding provided for each project ranged from \$0.2 to \$10 million and the average was about \$3 million.
- 8. The major technology areas of the funded projects are electronics, information and communication technology, and environmental technology in descending order. These technology areas account for about 76% of the funding approved.

- 9. The approved projects have supported some 250 R&D jobs and have created 20 internship positions for STEM graduates through the Internship Programme mentioned in paragraph 2(f) above. These R&D and internship positions not only bring about economic benefits, but also contribute to the nurturing of I&T talents in Hong Kong.
- 10. It is also encouraging that four ESS recipient companies have filed six patent applications, mainly in electronics and biotechnology.

MRP

- 11. The MRP aims to encourage universities funded by the University Grants Committee ("UGC") to conduct more theme-based midstream research in key technology areas. The funding ceiling for each project is \$5 million. Projects involving collaboration across multiple disciplines or institutions will be accorded priority and a higher funding ceiling of \$10 million per project.
- 12. On 10 June 2016, the Finance Committee of the Legislative Council approved an injection of \$2 billion into the ITF as endowment capital to generate investment income to finance projects under the MRP. This amount is now placed with the Exchange Fund for investment return.
- 13. We invited the first round of MRP applications under the theme "Elderly Health and Care" in December 2016. R&D projects that may enhance the well-being of the elderly are the focal point, particularly those that are related to preventing, diagnosing or treating dementia or those that facilitate quality care for dementia patients. By the application deadline on 31 March 2017, 111 project proposals have been received from six universities², 70 of which involve collaboration across multiple disciplines or institutions. These applications will be assessed by a panel comprising experts from the academia and industry.

Including City University of Hong Kong, Hong Kong Baptist University, The Chinese University of Hong Kong, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology and The University of Hong Kong.

TVP

- 14. The TVP was rolled out in late November 2016. As at end March this year, 1 369 SMEs have registered on the TVP website and 353 applications have been received. Among these applications, 30 were subsequently withdrawn by the applicant enterprises; 189 could not be processed and had to be returned to the applicant enterprises, mainly because the applicants had not submitted all the supporting documents required ³ and 41 are awaiting supplementary information or clarifications about the project details from the applicant enterprises.
- 15. For the remaining 93 applications, the TVP Committee has so far assessed 85 of them, 78 of which were supported, with a success rate of 92%. The total funding approved was \$10.7 million, averaging about \$138,000 per project. Seven applications were not supported by the Committee because the projects were largely for purchasing off-the-shelf software and hardware or did not make direct use of technological solutions, and therefore were inconsistent with the objectives and terms of the TVP. The remaining eight applications will be submitted to the Committee for consideration later.
- 16. Between December 2016 and end March 2017, we have organised 15 briefing sessions in collaboration with industry bodies or SME associations to introduce the details of the TVP, particularly the application process and the vetting criteria. Over 1 600 people attended the sessions. We will continue to arrange such briefing sessions in future on a need basis.

INCREASING THE CASH REBATE LEVEL UNDER THE CRS

- 17. The level of cash rebate of the CRS was increased to 40% from the date of announcement of the 2016-17 Budget (i.e. 24 February 2016).
- 18. The private sector has responded positively to this enhancement measure. The number of applications approved increased from 244 in 2015-16 to 285 in 2016-17, representing an increase of about 16.8%, while the amount of rebate increased from \$54.2 million in 2015-16 to \$72.4 million in 2016-17, representing an increase of about 33.6%. For applications involving partnership projects, applicants are required to pre-register with us prior to

Such as documentary evidence proving that the applicant enterprise has at least a year of substantive business operations in Hong Kong, Business Registration Certificates or Annual Returns of the Companies Registry of the applicant enterprises, quotations of the expenditure items, proof of identity of the person signing the application form, etc.

commencement of the projects to indicate their interest. The number of pre-registration of new partnership projects in 2016-17 was 129, which was 40.2% higher than that of 2015-16. We expect that the number of applications will continue to grow.

19. As at end March 2017, 960 private companies have been granted cash rebate, involving about \$241.9 million.

EXPANSION OF THE PSTS

- 20. As at end March 2017, about 140 projects have been approved under the PSTS with funding of about \$230 million, benefitting about 200 organisations.
- 21. To strengthen support for local start-ups, we extended the PSTS in December 2016 to cover incubatees⁴ of the HKSTPC and Cyberport for trials of their products or services in the public sector. We have yet to receive any applications, but we understand that some interested companies are discussing with public sector organisations to try out their technology products or services. We will conduct more briefings for the incubatees of the HKSTPC and Cyberport to promote the scheme.

EXPANSION OF THE INTERNSHIP PROGRAMME

- 22. The Internship Programme was extended to cover incubatees and SME tenants of the HKSTPC and Cyberport in December 2016. Each eligible applicant company can recruit up to two interns at any one time and the maximum internship period is 24 months. As at end March 2017, applications from 32 companies in HKSTPC and Cyberport have been approved, involving 41 interns and about \$11.1 million of funding.
- 23. Since the launch of the programme in 2004, we have supported over 2 500 interns, involving funding of over \$500 million. The average duration of internship is around 16 months. The major technology areas of the funded internship positions are manufacturing technology, biotechnology and information technology. Over 60% of interns who have completed their internship either continue their career or plan to pursue a career in I&T-related areas.

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⁴ Incubatees include graduate-tenants i.e. graduates from the incubation programmes who stay on as tenants.

FURTHER ENHANCEMENT TO THE ITSP

At the moment, in addition to local public research institutions⁵, 10 local universities and their continuing education arms are eligible to apply for ITSP funding. As our policy objective is to encourage more R&D activities, we consider it appropriate to expand the eligibility criteria to all self-financing degree-awarding institutions registered under the Post-Secondary Colleges Ordinance (Cap. 320)⁶. Project proposals would be subject to the same vetting criteria as other institutions. We plan to effect the expansion by the next round of ITSP solicitation exercise in the second half of 2017.

ADVICE SOUGHT

25. Members are invited to note the content of this paper and support the proposed enhancement set out in paragraph 24.

Innovation and Technology Bureau Innovation and Technology Commission May 2017

They include those in footnote (1) and the Clothing Industry Training Authority.

Including the Caritas Institute of Higher Education, Centennial College, Chu Hai College of Higher Education, Gratia Christian College, Hang Seng Management College, Hong Kong College of Technology Institute of Higher Education, Hong Kong Nang Yan College of Higher Education and Tung Wah College.