

Legislative Council Panel on Commerce and Industry

2016 Policy Address

Policy Initiatives of Innovation and Technology Bureau

Background

Technological developments, apart from impacting on economic strength, also affect our daily lives in multiple aspects. Promotion of innovation and technology (“I&T”) is therefore of utmost importance to Hong Kong. The Chief Executive published the Policy Address on 13 January. Its Chapter IV sets out a number of measures to promote the development of I&T. This paper briefs the Panel on Commerce and Industry on the relevant measures.

New Initiatives

Technology Research and Development

Encouraging midstream and applied research

2. Hong Kong has world-class universities and research capability. One of the work priorities of the Innovation and Technology Bureau (“ITB”) is to promote collaboration opportunities with the world’s top science and research institutions. First, we hope to focus on encouraging universities to conduct more midstream and translational research and development (“R&D”) for better articulation with downstream R&D, so that the projects will be able to attain greater scientific achievements and enjoy more realisation/commercialisation opportunities.

3. We propose to establish a \$2 billion midstream R&D fund to encourage, through investment income, institutions funded by the University Grants Committee to conduct theme-based research in key technology areas. We will set specific research topics (e.g. Smart City, regenerative medicine, healthy ageing, etc.) and actively encourage R&D personnel in the institutions to explore technologies or outcomes that can be applied in these areas.

Promote collaboration with Mainland and overseas scientific research institutions

4. We will actively promote collaboration between Hong Kong scientific research institutions and their counterparts in the Mainland and other places, with a view to further upgrading Hong Kong's I&T capabilities and extending development opportunities. Hong Kong's innovative capabilities, potential and room for development are already recognised by advanced institutions worldwide. The Massachusetts Institute of Technology of the United States announced in November last year the launch of its first overseas Innovation Node in Hong Kong. This year, the world renowned Karolinska Institutet of Sweden will set up its first overseas research facility in the Hong Kong Science Park ("HKSP").

5. As regards collaboration with scientific research institutions in the Mainland, in 2016, the five newly approved Hong Kong branches of the Chinese National Engineering Research Centres ("CNERCs"), together with the existing 16 Partner State Key Laboratories ("PSKLs") and one Hong Kong branch of CNERC already established, will conduct R&D activities in a diverse range of disciplines, such as infectious diseases, molecular neuroscience, synthetic chemistry, precious metal material engineering, etc. The three-year funding support committed for PSKLs and Hong Kong branches of CNERCs will expire after the current financial year (i.e. 2015-16). From 2016 onwards, we will further provide a three-year funding for these bodies under the Innovation and Technology Fund ("ITF"), amounting to \$110 million each year.

Developing High Value-added and Technology Industries

Expanding the Hong Kong Science Park

6. The HKSP is the I&T flagship infrastructure in Hong Kong, providing well-equipped R&D offices, laboratories as well as comprehensive technology and business development support services, and focusing on three cross-disciplinary platforms, namely "Smart City", "robotics" and "healthy ageing", to help technology companies to thrive. Phases 1 and 2 of HKSP were completed in 2004 and 2011 respectively while Phase 3 will be fully completed in early 2016. The gross floor area ("GFA") of HKSP will reach 330 000 square metres by then.

7. As at end December 2015, the average occupancy rate for Phases 1 and 2 of HKSP is 92%. For Phase 3, with about 75% of the GFA recently completed, the occupancy rate has already reached 69%. Currently, more than 580 local, Mainland and overseas R&D companies employing over 11 500 persons are operating in HKSP, creating a significant clustering effect. Besides provision of R&D offices, the Hong Kong Science and Technology Parks Corporation (“HKSTPC”) also spares no effort in nurturing technology start-ups. Over the years, it has been providing systematic support to technology start-ups of HKSP through its incubation programmes, including subsidised office space and shared facilities, various financial aid packages, technical and management assistance, marketing and business development assistance, as well as investment matching events to connect incubatees with angel investors and venture capitalists. The number of incubatees under HKSTPC has now been increased to 231, creating over 950 job opportunities. In addition, to help nurture promising start-ups from its incubation programmes, HKSTPC launched in 2014 the Leading Enterprises Acceleration Programme to provide dedicated assistance in marketing skills, business and corporate development.

8. Given the continued demand for R&D offices from I&T companies, we proposed injecting \$2,878 million to HKSTPC in 2016/17 and providing guarantee for its commercial loan of \$1,107 million, with a view to supporting Stage 1 of the Science Park Expansion Programme (“SPX1”), which involves the construction of two building blocks (14-storey and 15-storey) at the western corner of the Phase 3 site with an estimated development cost at \$4,428 million. Upon completion of the expansion, the GFA of HKSP will increase to approximately 400 000 square metres. We will seek funding approval from the Finance Committee (“FC”) later this year.

Implementing new industrial estate policy to promote “re-industrialisation”

9. “Re-industrialisation” provides Hong Kong with the opportunities to identify new area of economic growth. The Government and HKSTPC have revised the industrial estate (“IE”) policy to develop multi-storey high-efficiency specialised buildings in IEs for promoting smart production and attracting high value-added technology industries and high value-added production processes suitable for Hong Kong, so as to create more quality and diversified employment opportunities.

10. HKSTPC is now carrying out detailed study on the economic case and relevant financial arrangements for two pilot projects in the Tseung Kwan O IE covering about 3.25 hectares. Having regard to the global trend of re-establishing local manufacturing industries, in particular high-end manufacturing based on artificial intelligence, data analysis and Internet of Things, it is preliminarily suggested that the first two projects should target at information and telecommunications technology (“ICT”) and advanced manufacturing using robotics technologies. It is expected that the relevant studies will be completed in the first half of 2016 and we will submit the corresponding funding proposals to the Legislative Council.

11. In addition to the pilot projects on using the remaining vacant sites in the IEs to develop specialised multi-storey industrial buildings, HKSTPC is revitalising the IEs and building up a reserve of floor area available for development through various initiatives, including requesting factory operators to surrender unused plot ratio through negotiation and encouraging them to surrender premises which had not been fully utilised. Through these initiatives, HKSTPC can better optimise the use of existing IE sites.

12. In addition, the Government will identify suitable sites near the Liantang/Heung Yuen Wai Boundary Control Point for the long-term development of HKSP and IEs.

Supporting Innovation and Technology Start-ups

13. Providing support to start-up companies is of particular importance to the development of I&T. There are breakthroughs in Hong Kong in recent years. In addition to the comprehensive incubation programmes of HKSP and Cyberport which support start-ups in R&D and assist them to open up markets, the number of incubation and co-work locations funded and operated by the business sector has increased to over 40, showing an encouraging growth when compared to just a few in 2010. This demonstrates investors’ confidence in the development prospects of Hong Kong’s technology companies. At present, there are about 1 600 start-ups in these incubation and co-work locations, most of which are technology companies. According to an international study in 2015, the growth of Hong Kong’s start-up ecosystem ranked among the top five in the world.

14. Technology start-ups will only thrive with capital injection at different stages of development. At present, ITF, the Cyberport Creative Micro Fund and different university funding schemes are providing some seed-stage funding. In addition, HKSP set up a \$50 million Corporate Venture Fund last year, which co-invests on a matching basis with angel investors or venture capital funds in start-ups in HKSP or those who have participated in its incubation programmes. In the coming year, Cyberport will allocate \$200 million to set up a Cyberport Venture Fund for investing in its incubated ICT start-ups.

15. In order to encourage more venture capital funds to invest in local technology start-ups, we propose to set up a \$2 billion Innovation and Technology Venture Fund (“ITVF”) for co-investing with private venture capital funds on technology start-ups on a matching basis. ITVF will co-invest in Hong Kong’s technology start-ups with a number of selected venture capital funds at an investment ratio of about 1 to 2. We will finalise the implementation details of ITVF, such as selection criteria for venture capital funds, terms of matching investment and monitoring mechanism in due course. We will also continue to provide comprehensive support to technology start-ups at different stages of development through HKSP and Cyberport.

Innovation and Technology and Living

16. I&T development is closely related to people’s livelihood. In order to promote the use of I&T in improving people’s lives, we plan to set aside \$500 million to set up an Innovation and Technology Fund for Better Living, to be spearheaded by ITB to finance projects that make use of innovative ideas and technologies to improve people’s daily lives. The fund will be open to applications by non-governmental organisations, public service organisations and enterprises, who will need to put up specific proposals to improve the daily life of our people. As the fund will cover a wide range of areas, we will invite relevant bureaux to assist in the vetting process as necessary. We will finalise the operation details such as vetting criteria and subsidy format, etc.

On-going Initiatives

Promoting applied R&D, and supporting commercialisation of R&D outcomes and R&D in the private sector

17. The ITF was set up in 1999 to encourage and assist Hong Kong enterprises to upgrade their technological level and promote innovative applied R&D projects, so as to increase the added value, productivity and competitiveness of our economic activities.

18. On the application of R&D outcomes, the Public Sector Trial Scheme (“PSTS”) under ITF provides additional funding to completed R&D projects funded by ITF for the production of tools, prototypes or samples, and conducting trials in the public sector. The PSTS has so far supported over 100 projects involving a funding of \$170 million. These trial projects were conducted in many different types of public organisations and benefited various sectors of the community. To further promote the application of R&D outcomes of ITF-funded projects in the public sector, we raised the funding ceiling of PSTS projects in 2014 from 30% to 50% of the actual cost of the R&D projects funded by ITF, and up to 100% for projects undertaken by the R&D Centres¹, with a view to encouraging larger scale trial schemes for assessing more comprehensively the effectiveness of the new technology and enhancing the products. We will explore the possibility of further extending the scope of the PSTS after consulting the industry and relevant stakeholders.

19. In addition to supporting R&D projects, ITF also provides funding to support the operation of the R&D Centres. Over the past nine years, the five R&D Centres have undertaken a total of over 850 R&D projects with some \$3.8 billion from ITF. In December 2015, the FC approved an additional allocation of a total of \$677.6 million from ITF to support the operation of four R&D Centres up to 2020-21.

20. To encourage more private sector investment in R&D, ITF launched an Enterprise Support Scheme (ESS) in April 2015 to replace the Small Entrepreneur Research Assistance Programme. The ESS is the only programme under ITF that directly supports in-house R&D carried out by private companies. Companies of all sizes may apply. Each approved project will be funded on a dollar-for-dollar matching

¹ In 2006, the Government set up R&D Centres for five focus technology areas to drive and co-ordinate applied R&D in selected focus technology areas and promote commercialisation of R&D results and technology transfer.

basis. The maximum amount of Government funding for each project is \$10 million, and there is no requirement for recoupment of Government's contribution. As at end December 2015, over 150 ESS applications have been received, of which over 60 applications have been processed. 14 applications have been approved-in-principle, involving funding of around \$46 million.

21. In addition, we have subsumed the R&D Cash Rebate Scheme ("CRS") under ITF in February 2015 as a long-term arrangement for the Scheme. The CRS was launched in April 2010 to provide cash rebate to enterprises on their investment in R&D projects funded by ITF or conducted in partnership with designated local public research institutions, with a view to encouraging more companies (in particular small and medium enterprises) to establish partnership with public research institutions, reinforcing the research culture among the companies and promoting investment in R&D. As at November 2015, CRS has approved a total of about 1 220 applications involving cash rebate of some \$149 million.

Strengthening collaboration with the Mainland on science and technology

22. We have been strengthening collaboration with the Mainland on science and technology so as to complement the National 12th Five-Year Plan. Looking ahead, ITB will seize the opportunities and development potential brought about by the National 13th Five-Year Plan, and the support rendered by the Mainland to Hong Kong in developing I&T, making Hong Kong a "super-connector" in the arena of I&T. We will forge close ties with top local, Mainland and global R&D institutions, fostering the development in I&T.

23. The interactions in I&T between Hong Kong and the Mainland are becoming increasingly close. In December 2015, HKSTPC signed cooperation agreements with four technopreneurship co-working space providers and incubators from Beijing, Tianjin, Shanghai and Shenzhen, with the aim of promoting exchanges between young entrepreneurs from Hong Kong and the Mainland on entrepreneurship and innovation, as well as providing more comprehensive support for them. Such cooperation could create more technological outcomes to the industries in both places.

Cultivating the community's I&T culture

24. To enhance public awareness of I&T, we have organised a wide range of promotional activities, including the anchor event InnoTech Month (“ITM”) held every year from late October to early December. Last year, the event attracted around 230 000 visits. We also supported students and enterprises to participate in science and technology competitions or invention exhibitions. In August 2015, we co-organised the 30th China Adolescents Science and Technology Innovation Contest with the China Association for Science and Technology with a view to promoting popular science and fostering technology exchanges among young people. We will continue to organise ITM and support the organisation of various science and technology competitions and promotional activities to nurture a culture of I&T in the community.

Way Forward

25. With the establishment of ITB and the implementation of a number of new policies and initiatives, we plan to review the functions and structure of the Advisory Committee on Innovation and Technology for it to be more effective and focused in tendering advice to the Government on the long-term development of I&T. The ITB will proactively communicate with stakeholders from the Government, industry, academia and research sector, co-ordinate policies on innovation and technology, forge consensus within the community, thereby fostering local I&T development.

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