

For discussion
on 15 January 2021

Legislative Council Panel on Commerce and Industry

The Chief Executive's 2020 Policy Address Policy Initiatives of Innovation and Technology Bureau

Innovation and technology (“I&T”) is a key policy agenda of the current-term Government. The Government is determined to promote I&T, thereby driving diversified economic development, improving people’s quality of life and creating quality jobs. The Chief Executive (“CE”) set forth eight major areas¹ for developing I&T in the 2017 Policy Address. The Government has been actively working on various areas with good progress.

2. The coronavirus disease 2019 (COVID-19) pandemic has highlighted the importance of developing and promoting technology application, as well as our potential to turn crisis into opportunities. Technology products and applications researched and developed locally, for instance, the wristband applying geofencing technology for home confinees, the interactive map dashboard disseminating information about the latest situation of the pandemic, antibacterial coating, the information/ logistics management system adopted in the Universal Community Testing Programme, etc., have played important roles in the fight against the epidemic. While many metropolises over the world are placed into lockdown, making use of e-commerce and digitising government services have become more important. This has also created new opportunities for the I&T sector, at the same time expediting digitalisation of the city.

3. The Policy Address, together with the Policy Address Supplement, delivered by the CE on 25 November 2020 set out various policies and measures to further promote I&T development. Details are set out in paragraphs 4 to 34 below.

¹ The eight major areas include: (a) increasing resources for research and development (“R&D”); (b) pooling together technology talent; (c) providing investment funding; (d) providing technological research infrastructure; (e) reviewing existing legislations and regulations; (f) opening up government data; (g) Government to lead changes to procurement arrangements; and (h) strengthening popular science education.

New initiatives

Global STEM Professorship Scheme

4. Talent is the key to the success of I&T development. In addition to our continued effort in strengthening training for local talent, Hong Kong has to maintain its competitiveness in pooling global talents. Following the rapid I&T development in recent years and the consistently enhanced atmosphere in Hong Kong, the Government will launch a Global STEM Professorship Scheme, with an estimated funding of \$2 billion, to strengthen our support for the universities to attract world-renowned I&T scholars as well as their teams to work in Hong Kong, thereby enabling local universities to scale new heights in STEM teaching and research.

Greater Bay Area Youth Employment Scheme (I&T sector)

5. The proposed Greater Bay Area (“GBA”) Youth Employment Scheme will set aside around 700 quotas for the I&T sector. Enterprises with business in Hong Kong and GBA Mainland cities can employ university graduates in Hong Kong to undertake I&T work in the two places. The Government will provide subsidies for companies. The young people employed shall spend approximately six to 12 months working in Hong Kong and in GBA Mainland cities. The scheme will help local young people understand the latest I&T development in the two places and encourage them to seize the opportunities for career development in the GBA.

Shenzhen-Hong Kong Innovation and Technology Co-operation Zone

6. We are taking forward the development of the Hong Kong-Shenzhen Innovation and Technology Park (“HSITP”) located in the Lok Ma Chau Loop in full swing, with a view to establishing a key base for co-operation in scientific research through connecting with top-tier enterprises, R&D institutions and higher education institutions all over the world. The HSITP will become the largest I&T platform in Hong Kong’s history, eventually providing about a gross floor area (“GFA”) of 1.2 million square meters (“sq. m.”), which is about three times of that of the current Hong Kong Science Park (“Science Park”). We will seek funding approval from the Finance Committee (“FC”) of the Legislative Council soon, with a view to completing relevant infrastructure and the Batch 1 Development by batches between 2024 and 2027.

I&T Co-operation between Hong Kong and Shenzhen

7. Also, we are exploring with the Shenzhen Municipal People’s Government the feasibility of allowing the HKSTPC to lease and manage certain

areas of the I&T Zone in Futian, Shenzhen before the completion of the HSITP's first batch of buildings, so that the institutes and enterprises that are interested in starting their business in the GBA can first establish a presence in the Shenzhen I&T Zone. Such cooperation would better leverage the complementary strengths and create synergy between Hong Kong and Shenzhen.

Smart City Blueprint for Hong Kong 2.0

8. The *Smart City Blueprint for Hong Kong 2.0* the Government just released has set out over 130 smart city initiatives which make use of technologies in various areas. The aim is to bring benefits and convenience to members of the public so that they can better perceive the benefits of smart city and innovative technologies in their daily life.

“iAM Smart” personalised service platform

9. “iAM Smart” was launched in the end of 2020. Members of the public can access the public services needed via this one-stop personalised service platform and perform digital signing under the Electronic Transactions Ordinance (Cap.533) for handling statutory documents and procedures. Upon launching, the platform will initially provide more than 20 common public services, including online renewal of vehicle licence, eTax, renewal of full driving licence, registration of outbound travel information, registration for employment services by job seekers, as well as the online services of the electricity and gas companies. We will gradually make available more online public services, and expect to increase the number to about 110 by mid-2021. Moreover, we encourage the business community to participate in the “iAM Smart” platform. A sandbox has been set up at Cyberport for financial services and related companies to conduct trials, and will gradually be extended to other sectors.

Public Sector Reform

10. The Government will better serve the public through a wider adoption of I&T and streamlining business processes. About 900 government services of various bureaux/departments (“B/Ds”) will be reformed to reduce documentation requirements, share application information among different B/Ds and schemes, and adopt people-centric design and end-to-end process re-engineering. Moreover, we will promote more electronic licensing services. Our aim is that by mid-2022, all licence application forms can be submitted by electronic means.

Art Tech

11. With the advancement of technology, the integration of arts and I&T has become a new trend in art development. The Secretary for Home Affairs

will take the lead in setting up a task force to formulate strategies and measures to develop and promote Art Tech. The Government will proactively encourage the related sectors to apply for various funds, including the General Support Programme and Technology Voucher Programme (“TVP”) under the Innovation and Technology Fund (“ITF”), to carry out projects that integrate technology and arts.

On-going Initiatives

Development of Guangdong-Hong Kong-Macao Greater Bay Area International I&T Hub

12. The Central Government promulgated in February 2019 the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*, which proposes among others to develop the GBA into an international I&T hub, explore measures to facilitate the cross-boundary flow of innovation elements, such as talent, capital, information and technologies, strengthen international I&T cooperation, develop quality technological infrastructure and innovation platforms, etc. The GBA development brings valuable opportunities to Hong Kong’s I&T development, allowing Hong Kong to leverage our advantages on various fronts, pool innovation resources, promote R&D on I&T and boost our competitiveness.

13. The Ministry of Science and Technology (“MOST”) and the Ministry of Finance announced in 2018 to allow for cross-boundary remittance of R&D funding from the Mainland to Hong Kong. So far, the MOST and relevant government agencies at provincial or municipal level in the Mainland have approved about RMB 290 million to local universities and R&D institution to conduct R&D projects or set up laboratories. Furthermore, the MOST expanded in 2020 the coverage of local R&D institutions eligible for lodging applications for the “National Key R&D Programme” from 10 institutions to 19. Besides, the first batch of applications supported by both the MOST and the Innovation and Technology Commission (“ITC”) under the “Mainland-Hong Kong Joint Funding Scheme” launched in 2019 has gradually entered the approval stage. The second application solicitation exercise of the scheme also commenced in April 2020 to encourage R&D collaboration between Hong Kong and the Mainland.

14. Moreover, the Central Government announced in November 2019 the relaxation of the limitation on exporting human genetic resources to Hong Kong. So far, three Mainland branches established by Hong Kong’s universities have been confirmed by the MOST to be meeting specific requirements and will be

allowed to lodge applications for exporting human genetic resources to Hong Kong independently under a pilot scheme for research purpose.

Pooling Talent

Research Talent Hub

15. The Researcher Programme and Postdoctoral Hub introduced in 2004 and 2018 respectively were merged into the Research Talent Hub in mid-2020 to provide funding for scientific research institutions conducting R&D activities in Hong Kong to engage up to four research talents for R&D work. So far, more than 6 700 research talents have been engaged.

Technology Talent Admission Scheme

16. The Technology Talent Admission Scheme provides a fast-track arrangement to admit overseas and Mainland technology talent for companies undertaking R&D activities in 13 technology areas in Hong Kong. Since mid-2018, the ITC has allotted 513 quotas, while the Immigration Department has approved 215 applications for visas/entry permits under the scheme.

STEM Internship Scheme

17. The STEM Internship Scheme launched in the summer of 2020 subsidises undergraduates and postgraduates taking Science, Technology, Engineering and Mathematics programmes in local universities to enroll in short-term I&T-related internships, with a view to encouraging students to gain I&T work experience during their studies, thereby fostering their interest in pursuing a career in I&T. Under the scheme, an intern will receive a monthly allowance of \$10,500 for no more than three months in an academic year. The duration of the internship is at least four consecutive weeks. The place of internship can be in Hong Kong, the Mainland or overseas. The scheme has received enthusiastic response from students and employers/organisations. Over 1 200 students and about 800 companies/organisations joined the scheme last summer.

IT Innovation Lab in Secondary Schools

18. The Government launched the “IT Innovation Lab in Secondary Schools” programme in this school year. Each publicly funded secondary school can obtain funding of up to \$1 million in the three school years from 2020/21 to 2022/23 to upgrade IT equipment and facilities at schools and organise IT-related extra-curricular activities to arouse students’ interest in IT and enhance their digital skills in secondary school stage, as well as to foster an I&T culture, thereby expanding the supply of local I&T talents.

InnoCell

19. The construction of the InnoCell adjacent to the Science Park has completed in 2020, and is expected to commence operation in early 2021 to provide around 500 spaces with flexible design and facilities such as shared work spaces for leasing at affordable rental rates to principals of the tenants and incubatees in the Science Park as well as their overseas or Mainland employees and visiting researchers.

Encouraging R&D

InnoHK Research Clusters

20. We are pressing ahead with the establishment of the two world-class *InnoHK* research clusters in the Science Park, which are “*Health@InnoHK*” focusing on healthcare technologies and “*AIR@InnoHK*” focusing on artificial intelligence (“AI”) and robotics technologies. The *InnoHK* initiative has received over 60 proposals from world renowned universities and research institutes. The first batch of laboratories recommended for admission is expected to commence operation progressively in the first quarter of 2021.

Enhanced Tax Deduction for R&D Expenditures

21. To encourage more enterprises to conduct R&D locally, enterprises can enjoy enhanced tax deduction for R&D expenditures incurred on or after 1 April 2018. The deduction is 300% for the first \$2 million of the expenditure for “qualifying R&D activities” incurred by enterprises, and 200% for the remaining amount. There is no cap on the amount of enhanced tax deduction and the deduction is applicable to all enterprises. As at end November 2020, the total R&D expenditures involving claims for R&D tax deduction in 2019-20 assessment year was already about 19% more than that in 2018/19 assessment year.

Public Sector Trial Scheme (Special Call)

22. We launched in March 2020 a special call under the Public Sector Trial Scheme to support product development and application of technologies for the prevention and control of the COVID-19 epidemic. The scheme received 332 applications, of which 63 were approved, involving funding of over \$102 million. Approved projects include COVID-19 diagnostic/testing methods, reusable face masks/ face shields, anti-viral coatings, disinfection robots, COVID-19 spread prediction model, body temperature detection systems, etc., involving 57 public sector organisations.

Promoting Local Anti-epidemic Technology Products

23. The Government established in June 2020 the I&T Experience Sharing and Business Promotion Platform to share with overseas governments and stakeholders Hong Kong's experience through government to government collaborations and the connections of local I&T sector with the Hong Kong Trade Development Council. By means of webinars, online exhibitions and other online and offline activities to promote and connect with enterprises, the Platform has helped promote the I&T advantages and opened up business opportunities for the I&T sector in Hong Kong.

I&T Infrastructure

Phase II of the Science Park Expansion Programme

24. It was announced in the 2020-21 Budget that \$3 billion would be earmarked for taking forward Phase II of the Science Park Expansion Programme ("SPX2"). The programme involves building two annex buildings and facilities, such as laboratories, etc., at podiums in the Science Park to provide a GFA of about 28 000 sq. m. The Programme is expected to complete in stages from 2022 to 2024. We plan to consult this Panel in early 2021 and then seek funding approval from the FC.

Infrastructure for Supporting "Re-industrialisation"

25. The Data Technology Hub in the Tseung Kwan O Industrial Estate ("IE"), providing a GFA of approximately 27 000 sq. m., has commenced operation in the fourth quarter 2020. Meanwhile, the Hong Kong Science and Technology Parks Corporation ("HKSTPC") is developing the Advanced Manufacturing Centre ("AMC") in the Tseung Kwan O IE and the Microelectronics Centre ("MEC") in the Yuen Long Industrial IE to provide a GFA of approximately 108 600 sq. m. and 36 180 sq. m. respectively. The AMC is expected to be completed in 2022 and the MEC in 2023.

Supporting I&T start-ups

Enhanced support to HKSTPC's tenants and incubatees

26. The Government allocated \$10 billion to the HKSTPC in 2018 to enhance support for its tenants and incubatees and develop R&D-related facilities. The HKSTPC has progressively rolled out relevant initiatives, including the launch of the Science and Technology Entrepreneur Programme to help early-stage start-ups realise innovative ideas, the expansion of its incubation programmes and the Corporate Venture Fund, as well as the provision of rental concession. In

addition, the HKSTPC proactively develops various R&D-related facilities, such as expanding the Robotics Catalysing Centre and setting up “AI Plug” (an AI laboratory), Biobank and Biomedical Informatics Platform, etc.

Cyberport Smart-Space 8

27. Since 2018, the Cyberport has been operating the Smart-Space 8, a co-working space of approximately 20 000 square feet, in a revitalised industrial building in Tsuen Wan to meet the needs of start-ups and youth in co-working space. There are so far 122 start-ups, representing an occupancy rate of 99.6%.

Innovation and Technology Venture Fund

28. The Government established the \$2 billion Innovation and Technology Venture Fund (“ITVF”) to co-invest with its co-investment partners in local start-ups at a ratio of approximately 1:2, in order to encourage private investors to invest more in local start-ups. In the past two year, the ITVF has invested in 19 local start-ups with a total investment of about \$100 million, attracting private investment of over \$500 million. These start-ups are engaged in a wide variety of businesses, including financial technologies, e-commerce, supply chain management, biotechnology and AI, etc. The ITC will invite more venture capital funds to become co-investment partners.

Promoting Technology Application

Technology Voucher Programme

29. The TVP launched in end 2016 aims to subsidise local enterprises in using technological services and solutions to improve productivity, or upgrade or transform their business processes. Since the launch, the Government has enhanced the TVP several times. At present, the Government’s funding ratio is 75%. Each enterprise can be approved six projects, with a cumulative funding ceiling of \$600,000. Also, funded enterprises may apply for advance disbursement of up to 25% of the approved funding amount.

Distance Business Programme

30. Remote working or service has become a new trend against the backdrop of the epidemic. The Government launched under the Anti-epidemic Fund the Distance Business (“D-Biz”) Programme to support enterprises to adopt IT solutions to continue their business and services during the epidemic. The D-Biz Programme was open for application from 18 May to 31 October 2020. The response was overwhelming with 38 572 applications received in total. As at end December 2020, 28 038 applications have been processed, of which

25 930 were approved. 95% of the enterprises benefited are small and medium enterprises. After excluding cases in which the enterprises did not accept the application results or provide relevant documents after their applications had been approved, the total funding involved is around \$1.4 billion.

Promoting Use of I&T by Government Departments

31. The Government rolled out the TechConnect (block vote) in 2017 to support departments in implementing technology projects so as to enhance operational efficiency and improve public services. So far, the TechConnect (block vote) has supported 74 technology projects from 28 departments, of which 34 have been completed or rolled-out. The funded projects involve different areas, such as identification of problem sewage using smart monitoring system, as well as strengthened monitoring of the operation of lifts and escalators, etc., through the use of optical fiber Bragg grating sensing technology.

Promoting “Re-industrialisation”

Re-industrialisation Funding Scheme

32. The Government launched the Re-industrialisation Funding Scheme (RFS) in mid-2020 to subsidise manufacturers on a 1(Government):2(enterprise) matching basis to set up new smart production lines in Hong Kong. The subsidy is one-third of the total project expenditure or \$15 million per project, whichever is lower. The scheme was well-received, with 9 applications received in five months. The RFS Vetting Committee has completed vetting 7 applications and recommended funding support for 5 applications from the biotechnology, food processing and construction industries with a total funding amount of about \$10 million.

Re-industrialisation and Technology Training Programme

33. The Re-industrialisation and Technology Training Programme was launched in mid-2018 to fund staff of local enterprises on a 2(Government):1(enterprise) matching basis to receive technology training, especially those related to “Industry 4.0”. So far the Programme has supported about 3 390 staff to receive technology training.

Promoting I&T Culture

City I&T Grand Challenge

34. The first City I&T Grand Challenge (“Grand Challenge”) was launched on 18 December 2020 and is open for application until 24 April 2021.

The Grand Challenge puts up issues that are closely related to the public's daily living, and openly invite the community to propose solutions with I&T elements. Winning solutions may be selected for trial by relevant government departments, public sector organisations or communities. We hope to create a fervid I&T atmosphere and promote popular science education through a series of activities, and enable participants to contribute I&T-based solutions for improving the public's daily lives or benefitting specific communities.

Way Forward

35. There is still room for development and enhancement in Hong Kong's I&T. The Government will continue to liaise closely and cooperate with stakeholders, with a view to creating favourable conditions for local I&T development, promoting commercialisation of R&D outcomes and assisting the launch of more I&T products and technologies in the market, with a view to boosting the economy, creating job opportunities and improving people's livelihood.

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