For discussion on 30 April 2021

Legislative Council Panel on Commerce and Industry Subcommittee on Issues Relating to the Stimulation of Hong Kong's Economy

Update on measures to promote the development of innovation and technology in Hong Kong

PURPOSE

This paper seeks to provide the Subcommittee on Issues Relating to the Stimulation of Hong Kong's Economy of the Legislative Council ("LegCo") Panel on Commerce and Industry ("C&I Panel") with an update on the major measures to promote the development of innovation and technology ("I&T") in Hong Kong in three areas, namely encouraging research and development ("R&D"), pooling technology talent, as well as fostering the commercialisation of R&D outcomes. In addition, this paper summarises our direction in strengthening collaboration with other cities in the Guangdong-Hong Kong-Macao Greater Bay Area ("GBA") in the coming years, with a view to developing Hong Kong into an international innovation and technology hub as enshrined in the Fourteenth Five-Year Plan of China.

OVERALL RESOURCE COMMITMENT AND ACHIEVEMENTS

2. I&T is a top policy area of the current-term Government, with over \$100 billion committed to I&T development to date. In her 2017 Policy Address, the Chief Executive put forth eight major areas¹ to develop I&T to drive economic diversification, improve citizens' quality of life, and create quality employment opportunities. The Government has been actively taking forward a range of work in various areas to facilitate cooperation among the Government, industry, academia, and research institutes. Good progress has been made in recent years, and the efforts are gradually bearing fruits.

¹ Including increasing resources for R&D, pooling together technology talent, providing investment funding, providing technological research infrastructure, reviewing existing legislations and regulations, opening up government data, Government to lead changes to procurement arrangements, and strengthening popular science education.

3. Hong Kong's gross expenditure on R&D ("GERD") increased from around \$16.7 billion in 2014 to around \$26.3 billion in 2019, and the ratio of GERD to the Gross Domestic Product rose from 0.73% in 2014 to 0.92% in 2019. The number of employees in the I&T sector also grew from around 35 500 in 2014 to around 44 600 in 2019. In addition, Hong Kong is currently home to eight unicorns, with the number of start-ups surging from around 1 070 in 2014 to 3 360 in 2020. In terms of international ranking, Hong Kong is among the best, with its overall digital competitiveness² ranked 5th in the world; as for the performance in technological infrastructure³ and the Global Innovation Index⁴, Hong Kong is ranked 7th and 11th respectively. These conditions demonstrate that Hong Kong's I&T ecosystem has become increasingly vibrant and the I&T atmosphere has consistently enhanced.

4. The ensuing paragraphs will introduce the latest development of major measures in three areas, namely encouraging R&D, pooling technology talent, and fostering the commercialisation of R&D outcomes, as well as the direction in strengthening collaboration with other cities in the GBA.

ENCOURAGING R&D

5. R&D is the foundation of I&T. In addition to providing the industry with R&D and other I&T facilities, the Government has been implementing various measures to support universities, public R&D organisations and private enterprises in conducting R&D work to foster the long-term development of I&T and the economy in Hong Kong.

Infrastructure for encouraging R&D and supporting the I&T sector

InnoHK research clusters

6. We are pressing ahead with the development of *InnoHK* research clusters in the Hong Kong Science Park ("HKSP"). The first two clusters are "*Health@InnoHK*" focusing on healthcare technologies, as well as "*AIR@InnoHK*" focusing on artificial intelligence and robotics

² Source: World Digital Competitiveness Ranking 2020, International Institute for Management Development (English only)

³ Source: World Competitiveness Yearbook 2020 (technological infrastructure), International Institute for Management Development (English only)

⁴ Source: Global Innovation Index 2020, Cornell University, INSEAD, World Intellectual Property Organisation (English only)

technologies. We have received over 60 proposals from local universities and many world-renowned universities and research institutes. After a rigorous selection and assessment process, the first batch of around 20 admitted R&D centres have completed the renovation of their laboratories and commenced operation progressively. It is estimated that the remaining some seven R&D centres will commence operation later this year.

Hong Kong-Shenzhen Innovation and Technology Park in Lok Ma Chau Loop

7. The Government is taking forward the development of the Hong Kong-Shenzhen Innovation and Technology Park ("HSITP") in the Lok Ma Chau Loop ("Loop") in full swing. The HSITP will converge local, Mainland and overseas technology enterprises, R&D institutions and higher education institutions, and provide a platform for the local I&T sector to tap into the market of the GBA. Early this year, the Finance Committee of the LegCo approved the funding for two public works programme items, as well as the funding for commencing the HSITP's Batch 1 development and the initial operating cost of the HSITP Limited. It is expected that the Batch 1 development of the HSITP will be completed in phases from 2024 to 2027.

Phase II of the Science Park Expansion Programme

8. The 2020-21 Budget announced that \$3 billion would be earmarked for taking forward Phase II of the Science Park Expansion The programme involves building two annex Programme ("SPX2"). buildings and facilities, such as laboratories, etc., at podiums in the Science Park to provide a gross floor area ("GFA") of about 28 000 square metres ("sq. m."). We briefed the C&I Panel on the latest development of the HKSP and industrial estates ("IEs"), including SPX2, on 16 March. The Hong Kong Science and Technology Parks Corporation ("HKSTPC") will carry out the works in batches to minimise the potential nuisance associated with the major construction works on users of the HKSP, and the first batch of works will be supported by its internal resources. It is estimated that the first batch of works will involve a GFA of approximately 12 500 sq. m., mainly for laboratories, and will be completed in phases from 2022 to 2024.

Cyberport 5

9. The 2019-20 Budget announced that \$5.5 billion would be earmarked for developing Cyberport 5. The expansion programme will provide a GFA of approximately 63 000 sq. m. and facilities such as offices, co-woking space, conference venues, data service platforms, etc. It is estimated that the new building will accommodate some 100 technology companies and 750 start-ups. We will report the latest progress of the programme to the Panel on Information Technology and Broadcasting in May.

Financial support for R&D

Super tax deduction

10. The Government has also been providing a series of financial support to promote R&D. For example, in order to encourage more enterprises to conduct R&D locally, the Government amended the Inland Revenue Ordinance in 2018 to provide a two-tiered enhanced tax deduction regime for expenditure on "qualifying R&D activities" incurred by enterprises on 1 April 2018 and thereafter. The deduction is 300% for the first \$2 million of the qualifying R&D expenditure incurred by the enterprises and 200% for the remaining amount. There is no cap on the amount of the enhanced tax deduction. The claims for tax deduction on R&D expenditure for the year of assessment 2019/20 amounted to about \$3.16 billion, which is over a double of the amount in the year of assessment 2017/18 (i.e. prior to the implementation of the measure). About 70% of the claims were eligible for enhanced tax deduction.

Innovation and Technology Fund

11. The Innovation and Technology Fund ("ITF") has long been a major tool for the Government to promote technology upgrading and innovation. The ITF currently consists of 17 funding schemes supporting five major areas of $I\&T^5$, and funds, in full or in part, the operating expenditure of R&D centres, laboratories, and Technology Transfer Offices ("TTOs")⁶. Many schemes under the ITF fund R&D centres, universities, other designated public R&D organisations and private

⁵ Namely supporting R&D, facilitating technology adoption, nurturing I&T talent, supporting technology start-ups, and fostering an I&T culture.

⁶ Including 16 State Key Laboratories in Hong Kong, six Hong Kong Branches of the Chinese National Engineering Research Centres, the research centres/laboratories in the InnoHK research clusters, four R&D centres, and the TTOs of seven universities.

companies to carry out R&D work (including the Innovation and Technology Support Programme, the Midstream Research Programme for Universities, the Partnership Research Programme, the Enterprise Support Scheme, and the Research and Development Cash Rebate Scheme), and some strengthen collaboration in scientific research between universities and research institutes in Hong Kong and the Mainland (including the Mainland-Hong Kong Joint Funding Scheme and the Guangdong-Hong Kong Technology Cooperation Funding Scheme).

12. The Financial Secretary announced in the 2021-22 Budget that 4.75 billion would be injected into the ITF in each of the coming two consecutive years to sustain the operation of the 17 funding schemes and 53 R&D centres / laboratories in the next three years. We briefed the C&I Panel on the latest development of the ITF on 20 April, and obtained the Panel's support for the funding proposal. For details of the schemes and our work, as well as some signature examples of the ITF, please refer to the relevant LegCo paper⁷.

Five R&D Centres

13. The Government established five R&D centres in 2006, namely the Hong Kong Applied Science and Technology Research Institute, the Logistics and Supply Chain MultiTech R&D Centre, the Nano and Advanced Materials Institute, the Hong Kong Research Institute of Textiles and Apparel, and the Automative Platforms and Application Systems R&D Centre. The R&D centres are responsible for driving and coordinating applied R&D in selected focus areas. They work with the industry closely and foster the commercialisation of R&D outcomes and technology transfer, thereby playing an important role in converging the technological collaboration among the Government, industry, academia and research institutes.

POOLING TECHNOLOGY TALENT

14. The Government has been adopting a three-pronged approach in expanding the I&T talent pool in Hong Kong by nurturing, retaining and attracting talent. The major measures and funding schemes under the

⁷ <u>https://www.legco.gov.hk/yr20-21/english/panels/ci/papers/ci20210420cb1-776-3-e.pdf</u>

ITF⁸ below are pitched at target groups at different life stages, ranging from nurturing citizens' interest in I&T since young to pooling local and overseas I&T talent.

IT Innovation Lab in Secondary Schools And Knowing More about IT

15. The Office of the Government Chief Information Officer ("OGCIO") has implemented the three-year "IT Innovation Lab in Secondary Schools" Programme in the 2020/21 school year. The programme provides funding support of up to \$1 million to all publicly-funded secondary schools in Hong Kong for organising Information Technology ("IT")-related extra-curricular activities ("ECAs") and acquiring IT equipment and relevant professional services for ECAs to cultivate an interest in IT among students. In view of the overwhelming response from the school sector, the Financial Secretary announced in the 2021-22 Budget that an additional \$200 million would be allocated to extend the programme to all publicly-funded primary schools under the "Knowing More About IT" Programme. The Government will provide funding support of up to \$400,000 to each primary school in the coming three school years, enhancing students' interest in IT through ECAs.

STEM Internship Scheme

16. The pilot STEM Internship Scheme under the ITF, launched in June last year, subsidises local universities to arrange short-term internships for undergraduate and postgraduate students in Science, Engineering and Mathematics ("STEM")-related Mathematics, programmes. The scheme encourages students to experience I&T-related work during their studies and foster their interest in pursuing a career in I&T after graduation. The scheme has received strong support from seven local universities⁹, with over 1 600 university students, as well as over 1 000 companies and organisations, joining the scheme in summer and winter last year. In view of the enthusiastic response from the academia and the industry, the Financial Secretary announced in the 2021-22 Budget that the scheme would be regularised.

⁸ For the latest development of the following funding schemes under the ITF, please refer to the discussion paper for the Panel on Commerce and Industry meeting held on 20 April. (<u>https://www.legco.gov.hk/yr20-21/english/panels/ci/papers/ci20210420cb1-776-3-e.pdf</u>)

⁹ Namely the Hong Kong University of Science and Technology ("HKUST"), the University of Hong Kong ("HKU"), the Hong Kong Polytechnic University ("PolyU"), the Chinese University of Hong Kong ("CUHK"), the City University of Hong Kong ("CityU"), the Hong Kong Baptist University ("HKBU"), and the Education University of Hong Kong ("EdUHK").

Research Talent Hub

The Research Talent Hub ("RTH") under the ITF, merged from 17. the Researcher Programme and the Postdoctoral Hub¹⁰ in July last year, subsidises eligible companies or organisations to engage up to four graduates in STEM-related disciplines from a local university or a well- recognised non-local institution to conduct R&D work. In order to allow more flexibility for employers in engaging R&D talents, the eligibility for RTH has been extended since March 2021, under which employers can engage graduates with a bachelor's or master's degree of well-recognised non-local institutions. All participants must be Hong Kong permanent residents or persons permitted to work in Hong Kong by the Immigration Department ("ImmD"). In the past four years, the RTH approved about 4 500 applications for research talent, involving a total funding amount of about \$2 billion.

Global STEM Professorship Scheme

18. The Government will launch the Global STEM Professorship Scheme in the first half of this year to support the universities funded by the University Grants Committee ("UGC") in recruiting internationally renowned I&T scholars and their teams to undertake teaching and research work in Hong Kong. The cost of the scheme, estimated at \$2 billion, will be borne by the Government, the Hong Kong Jockey Club Charities Trust, relevant universities, etc. The Innovation and Technology Bureau ("ITB") and the Education Bureau are finalising the details of the scheme, and it is expected that universities can submit their nominations to the assessment panel within the first half of this year. Universities may recruit scholars based on existing mechanisms, and some have started to identify suitable candidates.

Technology Talent Admission Scheme

19. The Technology Talent Admission Scheme, launched in June 2018, provides a fast-track arrangement for eligible companies to admit overseas and Mainland technology talent to undertake R&D work in Hong Kong. The scheme was enhanced in end-January 2020, with its coverage extended to all companies conducting R&D activities in 13 technology areas in Hong Kong. As at end-March this year, the Innovation and Technology Commission ("ITC") has approved 554 quotas, and the ImmD has approved 232 visas or entry permits.

¹⁰ The Researcher Programme and the Postdoctoral Hub were launched in 2004 and 2018 respectively.

InnoCell

20. The construction of the InnoCell adjacent to the HKSP was completed in end-2020. It provides about 500 residential spaces with flexible design and ancillary facilities such as shared working spaces for leasing to principals of tenants and incubatees in the HKSP, their employees and visiting researchers from places outside Hong Kong, and other personnel (for example, employees and researchers from their collaborating enterprises), etc., at an affordable price. The HKSTPC has started accepting applications for admission into the InnoCell since 20 April this year.

Fostering commercialisation of R&D outcomes

21. Fostering commercialisation of R&D outcomes is crucial to building a comprehensive industry chain for I&T. In addition to encouraging R&D, the Government has been assisting enterprises in launching their R&D outcomes in the market via various initiatives and investment funding, as well as putting in place different schemes under the ITF ¹¹ to facilitate the commercialisation of R&D outcomes by the academia and private organisations. Relevant measures are summarised as follows:

Support for start-ups and universities

Innovation and Technology Venture Fund

22. The Government launched the \$2 billion Innovation and Technology Venture Fund ("ITVF") in 2017 to encourage venture capital ("VC") investment in local I&T start-ups, thereby creating a more vibrant startup ecosystem in Hong Kong. The Government co-invests with co- investment partners (CPs) at a matching ratio of approximately 1 (Government) : 2 (CPs). As at mid-April this year, the ITVF has invested more than \$100 million in 19 local I&T start-ups, attracting private investment of over \$600 million.

¹¹ For the latest development of the following funding schemes under the ITF, please refer to the discussion paper for the Panel on Commerce and Industry meeting held on 20 April. (<u>https://www.legco.gov.hk/yr20-21/english/panels/ci/papers/ci20210420cb1-776-3-e.pdf</u>)

HKSTPC's Corporate Venture Fund and Cyberport Macro Fund

23. The Financial Secretary approved in his 2021-22 Budget the HKSTPC's injection of \$350 million into the Corporate Venture Fund ("CVF") and Cyberport's injection of \$200 million into the Cyberport Macro Fund ("Macro Fund"), as well as the extension of their scope to cover start-ups in Series B and later stage investments. The Government is determined to promote the development of the entrepreneurial investment ecosystem in Hong Kong and support more start-ups with good potential to expand their business operations. The CVF currently amounts to \$600 million, having invested a total of around \$235 million in 19 technology companies and attracted close to \$2 billion co-investment in different rounds of investment since its establishment. The Macro Fund has so far invested over \$126 million in 16 companies and attracted over \$870 million private investment.

Start-up support from the HKSTPC and Cyberport

24. The HKSP and Cyberport, as Hong Kong's I&T flagships, have been committed to provding start-ups with infrastructure, incubation programmes and one-stop support. The HKSTPC expanded three existing incubation programmes in 2018, namely Incu-App, Incu-Tech, and Incu-Bio. In addition, the HKSTPC launched in 2019 the Science and Technology Entrepreneur Programme, which provides pre-incubation support for technology talent who are interested in starting their business and helps them bring their innovative ideas to life. Over the years, Cyberport has been supporting start-ups via its incubation programme; offering rental concession to attract multinational corporations to establish their presence in Cyberport via the Easy Landing Scheme; providing seed funding to help participants develop their innovative ideas into prototypes via the Cyberport Micro Fund; funding incubatees and alumni to participate in local, Mainland and overseas accelerator programmes via the Cyberport Accelerator Support Programme; and assisting start-ups in participating in trade fairs outside Hong Kong and expanding into overseas markets via the Overseas/Mainland Market Development Support Scheme.

Technology Start-up Support Scheme for Universities

25. The Technology Start-up Support Scheme for Universities ("TSSSU") was launched in 2014 under the ITF to support professors and students of six universities ¹² to start technology businesses and

¹² Namely HKU, CUHK, CityU, HKUST, HKBU and PolyU.

commercialise their R&D outcomes. From 2019-20 onwards, the maximum annual funding per university under TSSSU has increased to \$8 million, and the maximum amount of financial assistance for each start- up to \$1.5 million per year. According to the information provided by the universities, from 2017-18 to 2019-20, around 100 of the 156 funded start- ups have commercialised their R&D results and rolled out about 200 products or services in the market.

Promoting "re-industrialisation"

26. Government The has been promoting actively in recent years "re- industrialisation" developing by advanced manufacturing industries that are based on new technologies and smart production but do not require much land to enhance Hong Kong's The Government has been fostering favourable competitiveness. conditions for "re-industrialisation" in terms of infrastructure, talent, funding, and technology. Our major work is set out as follows:

Advanced Manufacturing Centre and the Microelectronics Centre

27. On infrastructure, the HKSTPC is developing the Advanced Manufacturing Centre in the Tseung Kwan O IE and the Microelectronics Centre in the Yuen Long IE, which will be completed in the coming two years and provide a total GFA of over 140 000 sq. m. for smart production and high-end manufacturing. A number of enterprises have expressed interest in admission to date.

Re-industralisation and Technology Training Programme

28. On talent, the Re-industrialisation and Technology Training Programme ("RTTP") was introduced in 2018 to fund local enterprises on a 2 (Government) : 1 (Enterprise) matching basis for their staff to receive training in advanced technologies, especially those related to "Industry 4.0". As at end-February this year, the RTTP has approved 1 116 applications for registering public courses and funding of over \$29 million for 3 740 trainees to receive over 4 640 training sessions in advanced technologies.

Re-industrialisation Funding Scheme

29. On funding, the Government launched the Re-industrialisation Funding Scheme ("RFS") under the ITF last July to subsidise manufacturers, on a 1 (Government) : 2 (Company) matching basis, to set up new smart production lines in Hong Kong. The funding ceiling is one- third of the total project cost or \$15 million, whichever is lower. As at end-March this year, the Secretariat has received 13 applications. The RFS Vetting Committee has vetted 11 applications, and agreed in principle to support nine of them.

The work of the Hong Kong Productivity Council

30. On technology, the Hong Kong Productivity Council ("HKPC") has been assisting enterprises in moving towards high value-added production and gradually upgrading to "Industry 4.0". It also assists traditional industries in upgrading their technologies. Major efforts include running the "Industry 4.0" Upgrade and Recognition Programme in collaboration with the Fraunhofer Institute for Production Technology ("IPT") of Germany, and through the Invention Centre jointly established with the IPT, assisting the industry in accelerating the adoption of innovative industrial technologies, thereby promoting the development of smart industries and digital manufacturing. In addition, the HKPC runs the Inno Space and Digital@HKPC (Digital Transformation) to assist the industry in gradually moving towards smart production.

Promoting application of technology

31. In addition, we encourage wide adoption of technology in different industries, thereby helping enterprises accelerate digital transformation. The government has stepped up efforts in adopting technological products and services from local technological organisations and enterprises, taking the lead in fostering the commercialisation of R&D outcomes. Relevant measures are summarised as follows:

Technology Voucher Programme

32. The Government launched the Technology Voucher Programme ("TVP") in November 2016 on a pilot basis to subsidise local enterprises / organisations in using technological services and solutions to improve productivity, or upgrade / transform their business processes. The TVP was subsequently incorporated into the Innovation and Technology Fund as a regular funding scheme in February 2019. As at end-February this year, a total of 9 562 applications have been received under the TVP (excluding applications which were subsequently withdrawn or unable to be processed due to ineligibility or missing supporting documents). 3 623 of the 3 854 applications assessed were approved, involving a total funding of about \$562 million.

Distance Business Programme

33. The Government introduced the Distance Business Programme ("D-Biz Programme") under the Anti-epidemic Fund last year to support enterprises to continue business and provide services during the epidemic through adoption of IT solution(s). During the application period from 18 May to 31 October last year, the D-Biz Programme received a total of 38 572 applications. In view of the overwhelming response, the Government has increased twice the provision for the D-Biz Programme from \$500 million to \$1.9 billion. As at mid-April this year, excluding cases in which the enterprises did not accept the application results or provide relevant documents after their applications had been approved, 27 619 applications have been approved, involving a total funding of about \$1.78 billion.

Pro-innovation procurement policy

34. The Government launched in 2019 a set of pro-innovation procurement policy, which increased the range of technical weighting from 30-40% to 50-70%. In order to provide start-ups and small and medium enterprises with more opportunities to participate in bidding, tenderers' experience is no longer an essential requirement for participating in procurement. Elements of "innovation" have also been included in the assessment criteria of government departments.

TechConnect (Block Vote)

35. The ITB rolled out the TechConnect (Block Vote) in 2017 to support government departments in implementing technology projects, so as to enhance operational efficiency and improve public services. Since the launch of the scheme, the response from departments has been positive. So far, the ITB has supported almost 100 technology projects from 31 departments, which involves a total funding of around \$500 million. 75 projects have commenced, 44 of which have rolled out or completed.

Smart Government Innovation Lab

36. The OGCIO established the Smart Government Innovation Lab ("Smart Lab") in 2019 to promote the wider adoption of I&T in government departments to improve public services. To date, the Smart Lab has matched 44 business needs nominated by departments with solutions, arranged 56 thematic workshops, and collaborated with relevant departments to arrange proof-of-concept testing for 21 solutions with potentials. Some 100 problems faced by public services have been set out on the Smart Lab's website, and the industry has submitted over 320 technology solutions and product suggestions.

E&M InnoPortal

37. The Electrical and Mechanical Services Department ("EMSD") launched the online platform E&M InnoPortal in 2018, which maintains a list of the technology development needs of various government departments, public organisations and the electrical and mechanical ("E&M") trades. Start-ups and academic institutions can publish E&M-related I&T proposals on the platform for matching. In 2020-21, the E&M InnoPortal has gathered about 100 I&T wishes and around 280 I&T solutions. More than 110 I&T projects are at different stages of trial, about 25 of which have their trials completed.

Public Sector Trial Scheme

38. The Public Sector Trial Scheme ("PSTS"), introduced under the ITF in 2011, supports all technology companies conducting R&D activities in Hong Kong to produce prototypes or samples of their R&D outcomes and/or conduct trials in the public sector for improving their products. The maximum funding amount for each project is \$1 million. In the past four years, the PSTS funded 205 projects involving a total funding amount of about \$424 million, benefiting over 130 different organisations to conduct over 280 trials. Moreover, the Government launched the special call for projects under the PSTS in March last year to support product development and application of technologies for the prevention and control of the epidemic. A total of 63 projects have been approved with a total funding of over \$102 million.

STRENGTHENING COLLABORATION WITH THE GBA

39. The Central Government promulgated in March this year the Outline of the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Long-Range Objectives Through the Year 2035 ("the 14th Five-Year Plan"), which sets out the support for the development of the GBA and improving the Guangzhou-Shenzhen-Hong Kong and Guangzhou-Zhuhai-Macau I&T corridor. The 14th Five-Year Plan also raises for the first time the support for Hong Kong's development into an international I&T hub and for deepening the relationship between Hong Kong and Mainland in I&T

co- operation, and positioning the Shenzhen-Hong Kong Loop as one of the four major platforms of co-operation in the GBA. The HKSAR Government will make every endeavor to complement and continue to actively participate in the relevant work of the 14th Five-Year Plan and the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area ("the Outline Development Plan") to enhance the I&T co- operation with other cities in the GBA.

Development of the GBA International I&T Hub

40. The Outline Development Plan has set out the target of developing the GBA into an international I&T hub, which includes supporting relevant institutes in Guangdong, Hong Kong and Macao to proactively participate in national technological programmes, and allowing cross-boundary remittance of research and development (R&D) funding from the Mainland to Hong Kong to strengthen the I&T co-operation between Hong Kong and the Mainland. So far, the Mainland has approved over RMB 340 million to local universities and R&D institutions to conduct around 140 R&D projects, participate in the establishment of 19 Guangdong-Hong Kong-Macao Joint Laboratories, and set up a Hong Kong Branch of a laboratory. In addition, the Ministry of Science and Technology ("MOST") has promulgated a number of measures to support Hong Kong's integration into national I&T development, including the expansion of the coverage of local R&D institutions eligible for lodging applications for the "National Key R&D Programme", launching the Mainland-Hong Kong Joint Funding Scheme with the ITC, and relaxing the limitation on exporting Mainland human genetic resources to Hong Kong, etc. So far, three Mainland branches established by Hong Kong's universities have been confirmed by the MOST to be meeting the specified requirements, and will be allowed to lodge applications for exporting human genetic resources to Hong Kong independently under a pilot scheme for research purpose.

One Zone, Two Parks

41. The HKSAR and Shenzhen Governments are jointly developing the Shenzhen-Hong Kong Innovation and Technology Co-operation Zone ("the Co-operation Zone") which comprises the Shenzhen Innovation and Technology Zone ("SZ I&T Zone") and the HSITP, with a view to establishing "one zone, two parks". The HSITP is adjacent to the SZ I&T Zone, which will facilitate the combination of Hong Kong's solid R&D strengths and Shenzhen's strong capability in advanced manufacturing to create a value-adding chain that covers the upstream, midstream and

downstream processes, thereby leveraging the complementary advantages The governments on both sides have agreed that before the of both sides. completion of the first batch of buildings in the HSITP, the HKSTPC will lease and manage certain areas of the SZ I&T Zone, so that the institutes and enterprises that are interested in starting their business in the GBA can first establish their presence in the SZ I&T Zone. Currently, the government on both sides are deliberating on the space and operational requirements, in order to firm up the mode of operation and related financial arrangements as soon as possible. Meanwhile, to attract more talent and enterprises to the Co-operation Zone, the governments on both sides are working out a joint policy to explore the provision of facilitation and supportive measures in the aspects of R&D resources, capital and people flow, with a view to attracting talent and enterprises from the Mainland and overseas to the Co-operation Zone.

42. The HKSAR Government will also continue to explore measures to facilitate Hong Kong I&T enterprises' investment in the Mainland, and liaise with relevant ministries of the Central Government to promote the effective flow of the four R&D innovation elements (i.e. flow of people, resources, capital and information).

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

43. The Greater Bay Area Youth Employment Scheme was rolled out in January this year to encourage enterprises with operation in both Hong Kong and GBA Mainland cities to recruit university graduates in Hong Kong to undertake I&T work in both places. As at end-April this year, the Government has received around 1 300 vacancies for I&T posts. The Government will provide enterprises with 18-month subsidies. The scheme helps Hong Kong youth understand the latest development of I&T in both places and encourages them to leverage the opportunities for career advancement in the GBA.

WAY FORWARD

44. 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, thereby boosting the economy, creating job opportunities and improving people's livelihood.

ADVICE SOUGHT

45. Members are invited to note the content of this paper.

Innovation and Technology Bureau Innovation and Technology Commission Office of the Government Chief Information Officer April 2021