For discussion on 16 July 2024

Legislative Council Panel on Commerce, Industry, Innovation and Technology

Latest Developments of the Hong Kong Science Park and InnoParks

PURPOSE

This paper aims to brief Members on the latest developments of the Hong Kong Science Park ("Science Park") and InnoParks.

BACKGROUND

- 2. Established in 2001, the Hong Kong Science and Technology Parks Corporation ("HKSTPC") is a statutory body wholly owned by the Government. It provides quality infrastructure facilities and support services for innovation and technology ("I&T") development in Hong Kong. HKSTPC is responsible for managing and operating the Science Park in Pak Shek Kok, the InnoCentre in Kowloon Tong, and the three InnoParks in Tai Po, Yuen Long and Tseung Kwan O, supporting over 1 500 enterprises.
- 3. The Science Park and the InnoCentre mainly provide research and development ("R&D") space and relevant ancillary facilities for technology enterprises. As at March 2024, the total workforce of the Science Park and the InnoCentre was around 22 000 (of which over 14 000 were R&D personnel). There were around 1 300 enterprises, covering the following clusters:

Cluster	Percentage of enterprise
Information and communications technology	38%
Biomedical technology	19%
Electronics	18%
Material and precision engineering	11%
Green technology	10%
Others	4%

- 4. The three InnoParks in Tai Po, Yuen Long and Tseung Kwan O promote the development of "new industrialisation" through the development of specialised multi-storey industrial buildings and the granting of land to suitable tenants and grantees. As at March 2024, the total workforce of the InnoParks was around 27 600, with 171 enterprises mainly from the biotechnology and pharmaceutical, information and telecommunications, as well as food and beverages industries, etc.
- 5. The Finance Committee of the Legislative Council ("LegCo") approved in July 2018 an injection of \$10 billion into HKSTPC, of which about \$3 billion is for the development of R&D-related facilities and about \$7 billion is for strengthening support to its tenants and incubatees. HKSTPC is gradually implementing the various initiatives. So far, about \$9.79 billion of the funding has been earmarked for specific purposes.

LATEST DEVELOPMENTS

6. HKSTPC has been promoting the local I&T development through providing I&T infrastructure facilities and other measures to support technology enterprises, as well as nurturing I&T talents. The latest developments of the Science Park and the InnoParks are highlighted in the ensuing paragraphs.

The Science Park

I&T infrastructure facilities

- 7. There are now 23 buildings in the Science Park, with a total gross floor area ("GFA") of about 400 000 square metres ("sq. m."), primarily used as R&D facilities and laboratories, and ancillary facilities such as office and co-working space. As at March 2024, the overall occupancy rate of the Science Park was 93% with over 1 200 technology enterprises, of which 79% were local enterprises, 11% were from the Mainland and Taiwan, and 10% were from overseas. 66% of them were small and medium-sized enterprises.
- 8. The Government and HKSTPC are committed to supporting Hong Kong's I&T development through the provision of laboratory space and relevant ancillary facilities for R&D activities, including implementing Batch 1 of Stage 2 of the Science Park Expansion Programme ("Expansion Programme"), which will provide about 13 000 sq. m. of GFA mainly for wet laboratories to sustain the growth of the park ecosystem. The project is expected to be completed in the first quarter of 2025.

- 9. In order to meet the market demand for laboratory space, HKSTPC has recently commenced a feasibility study on Batch 2 of Stage 2 of the Expansion Programme with a view to setting its implementation timetable by taking into account factors such as the global technological trend, demand for R&D space, estimated cost, economic environment and its financial position.
- On supporting biotechnology development, the Drug Safety Testing 10. Centre ("DSC") in the Science Park was accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International in March 2024, becoming the first accredited non-academic organisation facility in Hong In addition, DSC has started to provide application service for investigational new drugs approval in compliance with the United States Food and Drug Administration's Good Laboratory Practices for Non-clinical Laboratory Studies since April 2024 to help new drugs to start clinical trials upon being approved. HKSTPC is also expanding its Biobank which is expected to be completed in the third quarter of 2024, with its aggregate area to be increased from about 3 442 square feet ("sq. ft.") to about 5 300 sq. ft.; and the total capacity of its ultra-low temperature freezer will be progressively increased from 4 800 boxes of samples to 20 400 boxes which is expected to be completed in the second quarter of 2026. In order to meet the R&D demands in the Science Park, HKSTPC is also collaborating with different stakeholders to expand the source of bio-specimen.
- 11. On promoting the development of advanced therapy products ("ATP"), HKSTPC has established the Laboratory of Cellular Therapeutics as well as the ATP Good Manufacturing Practice ("GMP") Centre in collaboration with the University of Hong Kong and the Chinese University of Hong Kong respectively. The GMP Centre has obtained the licence and certificate for manufacturers issued by the Pharmacy and Poisons Board of Hong Kong in February 2024, becoming the first university-led research facility to comply with the GMP standard certification.
- 12. To support the technical development of technology enterprises, HKSTPC launched the STP Platform in April 2021 to enable them to use the virtual lab platform to conduct various types of scenario testing, which help reduce the cost and risk of adopting new technologies and facilitate the adoption of new I&T solutions, such as artificial intelligence ("AI") and robotics, smart city, big data, Internet of Things and sensor technologies, etc. The STP Platform was recognised by the Hong Kong Association of Banks and the Insurance Authority in July and September 2023 respectively to serve as the open Application Programming Interface sharing platform for the banking and insurance industries, enabling users to read and compare information of different products and services systematically in order to have a brand new financial experience. Meanwhile, HKSTPC is setting up computing infrastructure

facilities at the Advanced Manufacturing Centre ("AMC") in the Tseung Kwan O InnoPark, with a view to providing high-speed computing services to start-ups, R&D institutes and technology enterprises starting from the end of the third quarter of 2024 in order to support the R&D development in AI.

13. In addition, in order to foster the sharing of healthcare data for R&D purpose, HKSTPC and the Hospital Authority ("HA") signed a collaboration agreement in September 2023, enabling HA to set up a "Data Collaboration Lab" ("the Lab") in the Science Park to allow eligible R&D enterprises in the Science Park to apply for use of HA's healthcare data for R&D purposes. HKSTPC and HA launched a pilot programme on the Lab from October to December 2023 and invited two park companies for trial use of HA's healthcare data. In view of the positive feedback from the two companies after the trial and that the data were considered to be of research value, HKSTPC and HA officially opened the Lab for use by eligible I&T enterprises in the Science Park since March 2024.

Measures supporting technology enterprises

14. In order to support the sustainable development of the I&T ecosystem in Hong Kong, HKSTPC has been adopting a multi-pronged approach to introduce various measures, such as providing all-round support to start-ups, attracting technology enterprises to set up operation in the Science Park, encouraging them to deploy resources to conduct R&D and encouraging angel investors and venture capital ("VC") funds to step up investment in the local I&T ecosystem, and promoting technology transfer and commercialisation of R&D results. In addition, HKSTPC has been proactively assisting technology enterprises in connecting with investors. In 2023-24, the technology enterprises in the Science Park have raised about \$12 billion. Apart from nurturing a few unicorn enterprises, 15 tenants have been successfully listed after being admitted into the Science Park so far.

Nurturing start-ups

- (a) HKSTPC launched the Ideation Programme (formerly known as the Science and Technology Entrepreneur Programme) in January 2019 to provide \$100,000 seed funding to entrepreneurs. Since its launch and up to March 2024, 1 697 applications had been approved in total, and 702 of them were approved in 2023-24, representing a year-on-year increase of about 35%;
- (b) HKSTPC has launched various incubation programmes since 2001 and, upon consolidation, HKSTPC launched the Incubation Programme and the Incu-Bio Programme in July 2021 to provide a maximum funding of

\$1.29 million and \$6 million ¹ respectively to each incubatee. The scope of funding includes rental subsidy, grant, and targeted funding for technology and business development, as well as services such as mentor support and investor matching. As at March 2024, a total of 1 755 enterprises had been approved to participate in the programmes, of which 996 incubatees had successfully graduated. Regular tracking surveys conducted since 2018-19 found that of the 220 incubated start-ups that had graduated for three years, 196 (nearly 90%) were still in operation three years after graduation. In 2023-24, a total of 187 applications were approved, representing a year-on-year increase of about 11%;

Supporting technology enterprises

- (c) HKSTPC launched the Acceleration Programme (formerly known as the Leading Enterprises Acceleration Programme) in 2014 to provide support in market promotion, business expansion, and enterprise development, etc. to outstanding start-ups and companies which have completed the incubation programmes. Direct subsidy and other funding of up to \$4.8 million may be provided to enterprises. As at March 2024, 98 companies were approved under this programme. In 2023-24, a total of 12 applications were approved, representing a year-on-year increase of 71%;
- (d) HKSTPC pilot launched the Elite Programme in 2019 to fund technology enterprises which have growth potential and plan to expand R&D activities in the Science Park. Each enterprise may receive maximum funding of \$20 million for its R&D expenditure and rental subsidies equivalent to \$1.5 million. HKSTPC formally launched the Elite Programme in January 2022. As at March 2024, 47 enterprises were approved for participation in the programme. In 2023-24, a total of 16 applications were approved, representing a year-on-year increase of 60%;

Investing in technology enterprises

(e) Through the Corporate Venture Fund ("CVF"), HKSTPC co-invests on a matching basis with angel investors or VC funds in start-ups, which are currently located in the Science Park or have participated in its incubation programmes. The fund size of CVF has reached \$1 billion. Since its launch in 2015 and up to March 2024, CVF has invested in 31 technology start-ups with a total investment of over

Consisting of \$4 million financial subsidy and upfront grant and \$2 million cash subsidy to cover expenses for regulatory works such as clinical trial projects.

\$400 million, attracting private investment of over \$12.6 billion. Among the 31 technology enterprises invested by CVF, 18 of them raised a total of \$8.2 billion from private funds in subsequent rounds of fundraising; and

Promoting technology transfer and commercialisation of R&D results

(f) HKSTPC has been helping start-ups to establish connection with the industry through leveraging its incubation experience and investment/business networks, with a view to promoting technology transfer and commercialisation of R&D results. HKSTPC has also been actively connecting with the industry to facilitate collaboration between park companies and the local trade and industry. In 2023-24, HKSTPC promoted about 2 400 technology solutions to the industry and arranged about 1 500 follow-up meetings.

Nurturing and pooling together I&T talents

- 15. With a view to attracting more local, Mainland and overseas talents to join the I&T sector, HKSTPC organised the "Talent Power Up" I&T Career Expo in March 2024, with over 300 park companies offering more than 3 000 job vacancies physically and online, attracting over 6 000 participants. HKSTPC also organised job fairs and exchange activities in Singapore, Malaysia and the United States to introduce job and entrepreneurial opportunities at the Science Park to local I&T talents and students. HKSTPC has increased the quota for the "Global Internship Programme" in 2024 and continued to collaborate with a number of universities around the world² to welcome their students to take part in internship and participate in experiential activities at the Science Park, with a view to attracting them to come to Hong Kong for work or set up business upon graduation. HKSTPC has also led 20 park companies to participate in job fairs held at the Chinese University of Hong Kong, Shenzhen to attract undergraduate and postgraduate students of universities in the Greater Bay Area ("GBA") to work in Hong Kong.
- 16. Accommodation is an essential element in pooling together I&T talents. The InnoCell adjacent to the Science Park commenced operation in June 2021, providing around 500 residential units with ancillary facilities. To cope with demands, HKSTPC has been providing in phases a total of 200 residential units with flexible design and other ancillary facilities in West Kowloon since October 2023. As at March 2024, the average occupancy rate of the above residential units was 82%.

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Including Stanford University, University College London, Tsinghua University and National University of Singapore, etc.

Attracting strategic enterprises

17. In addition, HKSTPC has been actively responding to the Government's policy of attracting enterprises and talents to Hong Kong. HKSTPC visited the Mainland and overseas³ in the past year to recruit strategic enterprises and quality talents to develop their businesses, professions and careers in Hong Kong in order to promote Hong Kong's I&T development.

Promoting popular science

18. To promote popular science and encourage young people to join the I&T industry, HKSTPC has been organising various large-scale popular science competitions and events, and collaborating with different tertiary institutions and agencies to promote talent training, work experience and internship programmes in order to enhance the interest of students and graduates in the I&T industries, thereby giving new impetus to the I&T ecosystem. HKSTPC organised/coorganised six I&T competitions in 2023-24, attracting over 2 000 young people and students to participate.

Enhancing I&T atmosphere

- 19. HKSTPC has organised the eighth Elevator Pitch Competition ("EPiC"), attracting over 600 contesting companies from 47 economies. The Grand Finale was held on 26 April 2024 and 74 finalist start-up teams were required to pitch their innovative ideas to panel judges in the form of elevator pitch within 60 seconds. Apart from cash prizes, the participating teams may have a chance to be considered by relevant VC funds (including CVF) for investment and other business collaboration opportunities. Through participating in EPiC, start-ups can leverage on the Science Park as a springboard to explore opportunities in the Mainland, Asia and other overseas markets.
- 20. To enhance the application of I&T in the community, the City I&T Grand Challenge ("Grand Challenge"), organised by the Innovation and Technology Commission together with HKSTPC, provides a platform and resources for participants to realise their I&T solutions through competitions. The theme of the second Grand Challenge is "Hong Kong's Got I&T". All sectors of the community are invited to put forward I&T solutions focusing on two subjects, namely "I&T for Nature (Yama)" and "I&T for Community (Community Wellness)"⁴. The semi-pitch and Grand Pitch will be held in mid-July and mid-August respectively. Winners of the Open Group and University/Tertiary

Including Saudi Arabia, the United Arab Emirates, Malaysia, Singapore, France, Germany, Spain, Thailand, Australia, the United Kingdom and the United States.

⁴ "I&T for Nature" revolves around improving the operation and management of country parks and campsites, and enhancing hikers' experiences in nature with the use of I&T. "I&T for Community" is about enhancing support for carers through the application of I&T.

Institute Group will be provided with trainings and support to refine their I&T solutions and produce prototype for trials at designated venues such as government departments or public organisations.

Shenzhen Branch of the Hong Kong Science Park

21. The Shenzhen Branch of the Science Park has commenced operation since June 2023. As at March 2024, a total of 40 enterprises and R&D centres, engaging in the field of microelectronics, medical technology, big data and AI, financial technology, robotics, new materials and sustainable solutions etc., were admitted. Five of these enterprises have successfully applied for funding support from the Mainland Municipal Governments. HKSTPC has assisted seven enterprises in securing equity investment and another three in securing bank loans to facilitate their business development, enabling them to expand into the GBA and Mainland markets.

InnoParks

- 22. The InnoParks in Tai Po, Yuen Long and Tseung Kwan O occupy a total area of about 217 hectares. HKSTPC selects suitable grantees and tenants for admission to the InnoParks under a rigorous and fair assessment mechanism, so as to dovetail with the development direction of driving "new industrialisation" through I&T. The prevailing assessment criteria cover the societal and economic benefits brought to Hong Kong by the project, capital investment, whether it can create job opportunities, technology level of the product, whether advanced processes have been applied, R&D investment, sustainability, etc.
- 23. The specialised multi-storey industrial buildings in the InnoParks include the Precision Manufacturing Centre ("PMC")⁵, Data Technology Hub ("DT Hub")⁶, Medical Accessory Resilience Supplies ("MARS") Centre⁷ and AMC⁸. The occupancy rates as at March 2024 are tabulated below:

	Occupancy Rates
PMC	76%
DT Hub	47%
MARS Centre	76%
AMC	41%

⁵ Located in the Tai Po InnoPark, PMC was refurbished in 2017. It focuses on high technology smart production.

⁶ Located in the Tseung Kwan O InnoPark, DT Hub commenced operation in October 2020. It provides ancillary facilities for data infrastructure.

⁷ Located in the Tai Po InnoPark, MARS Centre commenced operation in June 2021. It focuses on the manufacturing of medical products as well as relevant products and services.

⁸ Located in the Tseung Kwan O InnoPark, AMC commenced operation in April 2022. It provides companies of different scales with scalable, efficient, and dedicated logistics serviced manufacturing space.

24. Furthermore, to enhance the utilisation of existing land in the InnoParks and support the development of "new industrialisation", HKSTPC has expedited the re-entry of under-utilised land in the InnoParks by strengthening the enforcement of existing lease terms and providing incentives to existing lessees to encourage early surrender of land before the expiry of their leases. In 2023-24, HKSTPC re-entered about 9.81 hectares of land (5 hectares returned by lessees and 4.81 hectares re-entered through enforcement of lease terms).

Microelectronics Centre ("MEC")

HKSTPC originally proposed to modify an old factory in the Yuen Long 25. InnoPark into MEC 9 but the modification proposal could not meet the requirements for a microelectronics production facility. Therefore, HKSTPC subsequently decided to demolish the old factory and construct MEC at the same site. Relevant construction works have been largely completed to provide a floor area of about 38 580 sq. m. Facilities such as light weight workshops and coworking spaces in MEC are expected to be available for tenants to gradually move in within 2024. HKSTPC is preparing for the installation of specialised systems in the pilot production facilities in MEC, including high standard clean rooms, exhaust system, centralised gas supply, ultrapure water supply, wastewater treatment system and dangerous goods storage, etc. and the works are expected to be completed in the third quarter of 2025. The final cost of the specialised systems of MEC would depend on the outcome of the tendering exercise which might be higher than the original estimate. HKSTPC will review the latest project cost and will report on the latest development in a timely manner. According to the funding arrangement endorsed by LegCo in May 2020, HKSTPC is required to bridge the funding gap using its own resources should the project costs eventually exceed \$2 billion. HKSTPC is carrying out the leasing work.

WAY FORWARD

Co-acceleration Programme

26. It is announced in the 2024-25 Budget that HKSTPC would launch the Co-acceleration Programme to pool the efforts of the I&T industry and provide value-added support services to I&T start-ups with high potential and to nurture them as regional or global enterprises. By consolidating the existing

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When reporting the latest development of the Hong Kong Science Park and Industrial Estates at the meeting of the Panel on Commerce and Industry on 16 March 2021, the Government also reported the construction of MEC in the original site. Subsequently, the Government reported the latest developments of MEC during the annual reporting of the latest developments of the Hong Kong Science Park and InnoParks at the meeting of the Panel on Commerce, Industry, Innovation and Technology. For details, please refer to Legislative Council Papers No. CB(1)647/20-21(03), CB(1)368/2022(01) and CB(1)778/2023(03).

Acceleration Programme and injecting an additional \$110 million, HKSTPC will launch the Co-acceleration Programme with partners from the business and university sectors to provide deeper and broader value-added support services to technology start-ups, including testing scenarios, business consulting, investment matching, talent recruitment, manufacturing and launching of products. HKSTPC is finalising the details of the Co-acceleration Programme and will kick-start the preparatory work. It is expected that 10 to 15 technology start-ups will be benefited each year within the first three to four years after the launch of the Co-acceleration Programme, of which about 50% of them are engaged in deep technology.

Advanced Manufacturing Space

27. To tie in with the policy objectives of attracting strategic enterprises to establish a presence in Hong Kong and promoting "new industrialisation", the Government will plan ahead to provide more advanced manufacturing space. HKSTPC is exploring the feasibility of refurbishing some of the re-entered buildings for use as advanced manufacturing space so as to increase the supply of floor area for advanced manufacturing in the InnoParks to about 200 000 sq. m.

ADVICE SOUGHT

- 28. HKSTPC will continue to support proactively the Government's policies, provide quality infrastructure facilities, assist local I&T enterprises in seizing opportunities in the GBA and developing overseas markets, provide support to start-ups and nurture I&T talents, with a view to leading Hong Kong's I&T development to the next milestone.
- 29. Members are invited to note the latest developments of the Science Park and the InnoParks.

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