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**Panel on Commerce and Industry**

**Meeting on 17 March 2020**

**Updated background brief on the Hong Kong Science Park and  
Industrial Estates**

**Purpose**

This paper provides: (a) updated background information on the Hong Kong Science Park ("HKSP") and Industrial Estates ("IEs"); and (b) a summary of views and concerns expressed by members of the Panel on Commerce and Industry ("the Panel") on the subjects.

**Hong Kong Science Park**

2. Under the management of the Hong Kong Science and Technology Parks Corporation ("HKSTPC"),<sup>1</sup> HKSP is Hong Kong's flagship technology infrastructure, providing facilities, services and a dynamic environment that enable companies to nurture ideas, innovate and develop.

3. HKSP has been offering its facilities and support services through a clustering strategy since its establishment in 2002. The five technology clusters are biomedical technology, electronics, green technology, information and communications technology, and material and precision engineering. HKSP, sitting on a 22-hectare site, has a total gross floor area ("GFA") of about

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<sup>1</sup> Hong Kong Science and Technology Parks Corporation ("HKSTPC"), being a statutory body set up by the Government in 2001, is tasked with the objectives to establish or develop premises in support of technology-based companies and activities; to facilitate research and development ("R&D") and application of technologies; and to support the development, transfer and use of new or advanced technologies in Hong Kong. The Government, as the sole shareholder of HKSTPC, appoints a Board of Directors to oversee the work of HKSTPC. HKSTPC manages and operates the Hong Kong Science Park ("HKSP"), three Industrial Estates ("IEs") as well as the InnoCentre at Kowloon Tong.

400 000 sq m, following the completion of the Stage 1 of the Science Park Expansion Programme in 2019.<sup>2</sup>

### Phase 2 of the Science Park Expansion Programme

4. According to the Administration, HKSTPC will kick-start the Phase 2 of the Science Park Expansion Programme and has commissioned a consultant to conduct a master planning study to explore the feasibility of expansion within the existing HKSP site and the option to develop outside HKSP.<sup>3</sup>

5. In addition, HKSTPC collaborates with local universities to jointly provide incubation services for university start-ups and strengthen the academic-industry linkage. HKSTPC has reached an agreement with the University of Hong Kong ("HKU") to jointly operate the HKSTPC Western District Hub near HKU as a hub for working, coaching and networking etc. for admitted start-ups. The Centre will commence operation in the first half of 2020.

### InnoCell

6. In May 2019, HKSTPC commenced the construction of the InnoCell at a site adjacent to HKSP by applying the Modular Integrated Construction technology.<sup>4</sup> The InnoCell will provide about 500 residential units with flexible design and ancillary facilities such as shared working spaces for leasing to principals of tenants/incubatees in HKSP as well as their Mainland/overseas employees and visiting researchers at an affordable rent. While the InnoCell is expected to be completed in 2020, HKSTPC will explore providing other accommodation support in the interim.

### Establishment of research clusters

7. At the meeting on 29 October 2019, the Panel noted that the Administration had received 65 proposals from world top-notch universities and

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<sup>2</sup> The expanded sites are for use by two InnoHK research clusters in HKSP, i.e. one on healthcare technologies (Health@InnoHK) and the other on artificial intelligence and robotics technologies (AIR@InnoHK) (more details in paragraph 7), as well as Incubation Centre, and Robotics Catalysing Centre, etc.

<sup>3</sup> The Financial Secretary announced in his 2020-2021 Budget that the Government will earmark HK\$3 billion for the Phase 2 of the Science Park Expansion Programme.

<sup>4</sup> The estimated development cost for developing the InnoCell is HK\$800 million, which includes the government equity of HK\$560 million (70%) and commercial loan guaranteed by Government of HK\$240 million (30%). The Finance Committee ("FC") approved the financing arrangement on 2 February 2018.

research institutions for the two research clusters to be established in HKSP, namely "Health@InnoHK" that focused on healthcare technologies and "AIR@InnoHK" that focused on artificial intelligence/robotics technologies. The two research clusters were expected to be set up progressively in the coming few months.<sup>5</sup> The Administration would also explore the setting up of the third research cluster to further promote global collaboration on research and development ("R&D") in Hong Kong.

### Other initiatives

8. The Panel was also briefed by the Administration at the meeting on 17 July 2018 that HKSTPC would make good use of the Government's injection of HK\$10 billion<sup>6</sup> by implementing various new measures conducive to the development of innovation and technology ("I&T"), enhancing support for its tenants and incubatees, and fostering the development of the two research clusters. HKSTPC would also in the coming years take a more proactive role in promoting I&T development and re-industrialization, and devote more resources to continue its efforts in:

- (a) enhancing the infrastructure in HKSP to further reinforce Hong Kong's capabilities in scientific research and re-industrialization;
- (b) strengthening its connection with I&T enterprises, government agencies, investors and the industrial and commercial sectors;
- (c) fostering collaboration with international and local universities and research institutions across different technological disciplines; and
- (d) promoting innovative development by creating an inspiring and vibrant ecosystem and offering customized services to I&T enterprises at different R&D stages.

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<sup>5</sup> On 13 July 2018, FC approved an injection of HK\$10 billion into the Innovation and Technology Fund for providing financial support on the capital expenditure, operation costs and R&D activities of the research centres/laboratories established by non-profit-making institutions and universities in the research clusters.

<sup>6</sup> On 13 July 2018, FC approved a commitment to inject a total of HK\$10 billion as equity to HKSTPC from 2018-2019 to 2021-2022. Of the total injection, around HK\$3 billion will be used to make available research-related infrastructure and facilities (e.g. pilot batch production facility, animal research and drug testing facility and robo standard testing laboratory, etc.) to reinforce Hong Kong's R&D capabilities in healthcare technologies and artificial intelligence and robotics technologies. The remaining around HK\$7 billion will be used to strengthen HKSTPC's support to its tenants/incubatees (e.g. by expanding the Corporate Venture Fund and Incubation Programmes to support start-ups, attracting international technology enterprises to establish presence in HKSP, developing a Smart Campus and improving its ancillary facilities, etc.).

## **Previous discussion on Hong Kong Science Park and related initiatives**

9. The Administration briefed the Panel at the meeting on 17 July 2018 on the latest development of HKSP. The major views and concerns expressed by members are summarized in paragraphs 10 to 13 below.

### Hong Kong Science and Technology Parks Corporation's support to its tenants/incubatees

10. Some members pointed out that many start-ups, which were graduates of the incubation programmes operated by HKSTPC, had been facing numerous problems such as increase in rentals due to their non-incubatee status. They opined that HKSTPC should, when setting the rental level of HKSP, take into account the affordability of its tenants, in particular start-ups which were newly-graduated from the incubation programmes, as most of them usually operated on a tight capital.

11. The Administration advised that under HKSTPC's 3-year Incu-Tech Programme, incubatees would be entitled to free rental for the first year, and half-rate rental for the second and third years. HKSTPC also offered programmes to help graduates of the incubation programme tide over the transitional period when they were no longer entitled to rental subsidy after graduation. The rentals of HKSP had not been raised in the previous two years, and would not be raised in the coming year. The Administration also clarified that tenants were currently only required to make deposit of three months' rental. Other facilitation measures which HKSTPC had taken included communal laboratories and three hours of free air-conditioning after normal office hours.

### Sandboxes

12. In response to members' concern on the availability of sandboxes for conducting pilot trials of new I&T solutions, the Administration advised that a Fintech sandbox had been set up and operated by the Hong Kong Applied Science and Technology Research Institute in HKSP. HKSTPC was also discussing with the Transport and Housing Bureau on an auto-pilot trial route sandbox in HKSP.

### Improvement of public transport facilities in the Hong Kong Science Park

13. Some members suggested that the public transport facilities should be improved to allow easier commutation into HKSP and IEs. The Administration advised that it had been looking into the issue with HKSTPC and would devise corresponding measures as and when necessary. For example, to cater for the sharp rise in the working population in HKSP, part of the additional funding to be allocated to HKSTPC (see footnote 6 above) had

been earmarked to enhance HKSP's accessibility through improving its transportation infrastructure, including the construction of a public transport interchange.

## **Industrial Estates**

### New admission criteria and leasing arrangement

14. In 2014, the Administration, in conjunction with HKSTPC, conducted a review on the utilization and long-term development direction of the three IEs.<sup>7</sup> Pursuant to the recommendation of the said review that HKSTPC should use the land in the three IEs more efficiently to support science and I&T based industries, and in order to dovetail the re-industrialization policy, the Administration revised the IE policy to accommodate I&T industries, encourage smart production, and attract high value-added technology industries.<sup>8</sup> HKSTPC will focus its resources on selected industries that can bring the most benefits to Hong Kong and complement the development of its three over-arching technology platforms of Smart City, Healthy Aging and Robotics. According to the Administration, the new admission criteria for IEs will be flexible enough to cater for the fast-changing market trends in I&T sector and capable of accommodating the entire value chain covering R&D, prototyping, product design, production, testing and distribution, administration to marketing and branding, so that a "through-train" service can be provided.

15. Under the revised IE policy, instead of building their own factories, most tenants will be leasing specialized multi-storey industrial buildings built by HKSTPC.<sup>9</sup> To tighten control and monitoring against under-utilization and abuse of facilities, HKSTPC will carry out on-site inspections, as well as requiring tenants to submit business updates every three years. The rental charges will be competitively priced, having regard to prevailing market conditions and other relevant factors, instead of linking to the historical land development costs.

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<sup>7</sup> The three IEs are Tai Po IE, Yuen Long IE and Tseung Kwan O IE with area of 75 hectares, 67 hectares and 75 hectares respectively.

<sup>8</sup> Examples include pharmaceutical, healthcare, biomedical and advanced machinery.

<sup>9</sup> Except under exceptional circumstances, HKSTPC will not grant sites to single users to build their own factories.

## Two pilot projects in Tseung Kwan O Industrial Estate

16. To promote smart production, attract high value-added technology industries and manufacturing processes, HKSTPC is developing the Data Technology Hub ("DT Hub") and the Advanced Manufacturing Centre ("AMC") in the Tseung Kwan O IE,<sup>10</sup> which are expected to be completed in 2020 and 2022 respectively.

17. DT Hub (with a GFA of about 27 000 sq m) is a purpose-designed infrastructure for data technology and telecommunications services, providing general supporting facilities, including business centre, showcase arena and offices, etc.

18. AMC (with a GFA of about 108 600 sq m) is a modern industrial building developed for smart manufacturing and highly automated production processes. It will focus on the development of selected high value-added manufacturing industries with extended activities such as R&D, logistics support, prototyping and design, etc. HKSTPC invited tenders for tenancy of AMC in April 2019 and has received a good number of applications for admission.

## Microelectronics Centre

19. To meet the industry's demand for microelectronics manufacturing facilities, the Administration proposed in May 2019 converting an old factory in the Yuen Long IE into the Microelectronics Centre. The Centre (with a GFA of 36 180 sq m after conversion) will be equipped with dedicated facilities (e.g. clean rooms, dangerous goods storage and waste treatment) and provide shared ancillary facilities (e.g. conference rooms, shared work spaces, and shared laboratories for product quality and reliability testing analysis). The conversion is expected to be completed by 2021.<sup>11</sup>

## Efficient use of existing Industrial Estate sites

20. According to the Administration, the three IEs, with over 90% of the land being utilized, have only been developed to about 53% of the overall maximum plot ratio of 2.5, as at March 2017. HKSTPC has been encouraging

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<sup>10</sup> The total estimated development cost of HK\$8,248 million (including HK\$6,633 million for Advanced Manufacturing Centre and HK\$1,615 million for Data Technology Hub) includes the government equity of HK\$6,598 million (80%) and government loan of HK\$1,650 million (20%). FC approved the financing arrangement on 28 May 2016.

<sup>11</sup> With the support of the Panel on Commerce and Industry, the Administration will seek FC's approval for injecting HK\$2 billion to HKSTPC for developing the Microelectronics Centre in due course.

factory operators of the IE sites to surrender unused plot ratio or premises which have not been fully utilized. Up to July 2018, HKSTPC has successfully repossessed 12 sites of about 12 hectares in total through enforcing relevant lease terms and providing other incentives.

21. Among the repossessed sites, HKSTPC completed refurbishing a four-storey factory (with GFA of about 7 800 sq m) in the Tai Po IE into the Precision Manufacturing Centre ("PMC") in 2017. PMC is now fully occupied by tenant enterprises engaging in precise engineering and assembly, new material manufacturing and environmentally-friendly yarn production, tooling and advanced indoor hydroponic industries, etc. HKSTPC will identify suitable premises in the Tai Po IE or Yuen Long IE to develop Good Manufacturing Practice grade facilities for use by the healthcare technology industries.

#### Planning for new industrial estates

22. The Chief Executive pointed out in the 2016 Policy Address that there would be an anticipated increase in the demand for sites for scientific research and new industrial use. According to an earlier study commissioned by HKSTPC, it is technically feasible to expand the Yuen Long IE on a nearby site of about 15 hectares. HKSTPC has taken this into its medium- to long-term development plan and commenced a study on the engineering and technical feasibility in February 2019 to explore the mode of development of the site so as to cater for the admission of high-tech industries.

23. The Administration has also reserved a site of about 56 hectares near the Liantang/Heung Yuen Wai Boundary Control Point for the long term development of IEs. HKSTPC commissioned a consultant in end 2018 to carry out a study on the development vision and will commence the engineering and technical feasibility study in due course.

#### **Previous discussions on Industrial Estates**

24. The Panel gave views on the latest development of IEs at the meeting on 17 July 2018 and discussed the Administration's proposal to develop the Microelectronics Centre at the meeting on 21 May 2019. The major views and concerns expressed by members are summarized in paragraphs 25 to 32 below.

#### Proposed development of the Microelectronics Centre

25. At the meeting on 21 May 2019, noting that currently, there were not many microelectronics-related businesses located in the vicinity of Yuen Long IE, some members were concerned whether the proposed development of the

Microelectronics Centre in the Yuen Long IE could help create synergistic effects and provide ancillary support to the interested enterprises to establish microelectronics and related production lines. They enquired whether the Administration had consulted the relevant sectors about their interest to set up microelectronics-related operations in the area.

26. Some members urged the Administration to keep abreast with the changing trends of the microelectronics industry so as to devise tailor-made support measures to assist the growth of the sectors. They also urged the Administration to leverage the proposed Microelectronics Centre to nurture, attract and retain talent for the microelectronics industry.

27. The Administration advised that the proposed Microelectronics Centre could host around 10 microelectronics-related enterprises depending on their scale and would create clustering effects. Prior consultation conducted by HKSTPC with the microelectronics industry had confirmed the keen interest of a number of microelectronics-related enterprises in setting up operations in the proposed Microelectronics Centre which would host not only enterprises engaged in integrated circuit ("IC") design or production, but also in related industries such as advanced materials.

28. Members enquired how the proposed Microelectronics Centre could leverage the strength of leading companies in Shenzhen in technologies such as the fifth generation mobile network technology, graphene, microchips and new energy vehicles to attract microelectronics-related enterprises to set up business in the Centre. The Administration advised that the Microelectronics Centre could cater for the industry's demand for small-scale pilot batch production. Hong Kong could also leverage its strong IC design capabilities which was needed by these industries, including those from the Mainland.

29. In response to some members' enquiry about the rental of and the projected investment return for the proposed Microelectronics Centre, the Administration advised that HKSTPC had consulted various trade associations and commissioned a consultancy study in determining the rental level of the Centre. As regards the investment return, it was expected that the investment in the Centre would break even within 20 to 30 years of operation. HKSTPC would also need to maintain adequate reserve to cater for the major repairs and refurbishment of the basic facilities including air-conditioning and electrical and mechanical equipment. Information on the rate of investment return and depreciation would be provided to the Finance Committee for consideration.

### Lease enforcement

30. At the meeting on 17 July 2018, in response to some deputations' query that certain grantees at IEs had contravened lease conditions by subletting their leased premises to a third party, the Administration advised that IE grantees (including data centre) were bound by the lease conditions, which stipulated, inter alia, that they should: (a) engage in the provision of specified products or services; (b) make a certain amount of investment in equipment or machinery; and (c) at all time retain exclusive possession of the premises and subletting would not be allowed. HKSTPC conducted site inspections of the premises at least twice a year. HKSTPC would take lease enforcement measures such as charging additional land premiums and initiating re-entry of premises against grantees who had violated the lease conditions and failed to take appropriate remedial actions after verbal warnings and written notice.

### Promoting the establishment of production lines in Hong Kong

31. At the same meeting, some members enquired about the Administration's measures to encourage private enterprises to relocate their production lines back to Hong Kong. They also suggested that the Administration should consider requiring enterprises which pilot-used local research outcomes to retain part of the relevant production lines in Hong Kong.

32. The Administration advised that Hong Kong had strong upstream R&D capabilities but lacked the capability to commercialize R&D results. The Administration had been actively creating favourable conditions for the industries, through promoting re-industrialization, to encourage enterprises to relocate their production lines back to Hong Kong. Apart from the provision of land, the Administration would provide additional resources for HKSTPC to attract advanced manufacturing suitable for establishment in IEs.

### **Council question**

33. At the Council meeting of 23 October 2019, Hon WU Chi-wai asked a written question in relation to the respective total values of production of HKSP, IEs, and each industry operating inside IEs, in the past 10 years. He was concerned that although the Administration had been vigorously promoting I&T development in the recent years, the percentage of value added of the manufacturing industry in the gross domestic product had remained at a low level, without showing any upward trend.

34. The Administration replied that the effectiveness of HKSTPC's work was reflected by a number of indicators, including the number of companies, working population, fund raised, etc. HKSTPC had not collated statistics on

the value added of HKSP and IEs. That said, projecting from the economic impact assessment prepared by the consultant in 2015, upon completion and achieving full occupancy of Stage 1 of the Science Park Expansion Programme, the economic contribution of HKSP to Hong Kong as a whole was approximately HK\$20 billion per annum (in 2017 prices).

### **Latest position**

35. The Administration will brief the Panel on 17 March 2020 on the latest developments of HKSP and IEs.

### **Relevant papers**

36. A list of relevant papers is in the **Appendix**.

Council Business Division 1  
Legislative Council Secretariat  
10 March 2020

## List of relevant papers

Date of meeting	Meeting	Paper
17/7/2018	Panel on Commerce and Industry	<p>Administration's paper on "Government's measures to promote 'Re-industrialization' and the latest development of the Hong Kong Science Park and Industrial Estates"  <a href="#">(LC Paper No. CB(1)1238/17-18(04))</a></p> <p>Updated background brief on the development of Hong Kong Science Park and Industrial Estates, and the policy on re-industrialization prepared by the Legislative Council Secretariat  <a href="#">(LC Paper No. CB(1)1238/17-18(05))</a></p> <p>Administration's follow-up paper on "Latest development of the Hong Kong Science Park and industrial estates, and the Administration's measures to support re-industrialization"  <a href="#">(LC Paper No. CB(1)299/18-19(01))</a></p> <p>Minutes of meeting  <a href="#">(LC Paper No. CB(1)1402/17-18)</a></p>
14/3/2019 (issue date)	Legislative Council Brief	<a href="#">Legislative Council Brief on "Hong Kong Science and Technology Parks Corporation Ordinance (Amendment of Schedule 1) Notice 2019" issued by Innovation and Technology Bureau and Innovation and Technology Commission</a>

<b>Date of meeting</b>	<b>Meeting</b>	<b>Paper</b>
21/5/2019	Panel on Commerce and Industry	<p>Administration's paper on "New measures to promote 're-industrialization' " <a href="#">(LC Paper No. CB(1)1046/18-19(03))</a></p> <p>Updated background brief on the re-industrialization policy and Industrial Estates prepared by the Legislative Council Secretariat <a href="#">(LC Paper No. CB(1)1046/18-19(04))</a></p> <p>Minutes of meeting <a href="#">(LC Paper No. CB(1)1248/18-19)</a></p>
23/10/2019	Council	<p>Question No. 20 on "Innovation, technology and re-industrialization" raised by Hon WU Chi-wai <a href="#">(Government press release)</a></p>
6/11/2019 (issue date)	Legislative Council Brief	<p><a href="#">Legislative Council Brief on "Hong Kong Science and Technology Parks Corporation Ordinance (Amendment of Schedule 1) (No. 2) Notice 2019" issued by Innovation and Technology Bureau and Innovation and Technology Commission</a></p>