

## **ITEM FOR FINANCE COMMITTEE**

### **CAPITAL INVESTMENT FUND**

#### **HEAD 962 - INDUSTRY**

**New Subhead “Equity in the Hong Kong Science and Technology Parks Corporation for Stage 1 of the Science Park Expansion Programme”**

**New Subhead “Loan to the Hong Kong Science and Technology Parks Corporation for Stage 1 of the Science Park Expansion Programme”**

Members are invited to approve –

- (a) a commitment to inject \$2,878 million as equity from the Capital Investment Fund; and
- (b) a guarantee by the Government for a commercial loan amounting to \$1,107 million and the interest arising therefrom

to the Hong Kong Science and Technology Parks Corporation to support Stage 1 of the Science Park Expansion Programme.

### **PROBLEM**

The Hong Kong Science and Technology Parks Corporation (HKSTPC) requires the support from the Government in the form of equity injection and guarantee of a commercial loan and the interest arising therefrom to develop Stage 1 of the Science Park Expansion Programme (SPX1) to meet the strong demand for space for research and development (R&D) activities.

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## PROPOSAL

2. We propose that Members approve a commitment to inject \$2,878 million as equity from the Capital Investment Fund together with a contingent liability to be assumed by the Government for guaranteeing a commercial loan of \$1,107 million and the interest arising therefrom to HKSTPC to enable it to proceed with the SPX1 development.

## JUSTIFICATION

### Policy Commitments

3. In the 1997 Policy Address, the then Chief Executive set out a vision to make Hong Kong a regional centre for innovation and technology (I&T). One of the plans was to develop Hong Kong Science Park (HKSP) in three phases over 15 years on a 22-hectare site at Pak Shek Kok. Phase 1 at Tai Po Town Lot (TPTL) No. 171 with an area of 8 hectares was completed in 2004. Phase 2 at TPTL No. 182 with an area of 7.7 hectares was completed in stages from 2008 to 2011. Construction of Phase 3 at TPTL No. 204 with an area of 6.24 hectares commenced in 2011 and is scheduled to be completed in early 2016.

4. In 2014, in conjunction with HKSTPC, the Government reviewed the utilisation and long-term development direction of HKSP and Industrial Estates (IEs) (the Review). HKSTPC reviewed global technology trends and the areas where Hong Kong had a competitive edge; and identified gaps in the local I&T ecosystem by benchmarking against best overseas practices and policies. Relevant stakeholders from the Government, industry, academia and research sectors were engaged in this exercise. With regard to the provision of infrastructure, the Review recommended, among other things, that HKSTPC should –

- (a) maximise the development potentials of the existing HKSP site by constructing new buildings to increase the gross floor area (GFA); and
- (b) use the land in the three IEs more efficiently to support science, I&T based industries which would bring wider benefits to Hong Kong.

5. In the 2015 Policy Agenda, it was announced that we would implement the recommendations of the Review, including: strengthening the role of HKSTPC in developing the I&T ecosystem; suitably raising the development density of HKSP to optimise land use in the park for the development of new R&D facilities; and proceeding with the formulation of a new IE policy to enhance the value chain of the I&T industries in Hong Kong and further revitalise the IEs. We believe that implementation of these measures would further promote the development of I&T, boost the development of new technologies and attract more high-tech companies to establish a presence in Hong Kong.

### **Current Position of the Science Park**

6. Phase 1 of HKSP, with a GFA of 120 000 m<sup>2</sup>, was constructed under the Public Works Programme at a total cost of \$2,907 million and completed in 2004. Phase 2 with a GFA of 105 000 m<sup>2</sup> was constructed by HKSTPC at a total cost of \$4,296 million and completed in 2011<sup>1</sup>. Phase 3 with a GFA of 105 000 m<sup>2</sup> is scheduled to be completed in early 2016 at a total estimated cost of \$4,878 million<sup>2</sup>. On completion of all three phases, the total GFA of HKSP will be 330 000 m<sup>2</sup>.

7. As at the end of April 2016, the occupancy rates for Phase 1 and Phase 2 are 91.6% and 87.8% respectively. For Phase 3, with about 75% of the GFA completed, the occupancy rate stands at 72.5%. There are over 600 local, Mainland and overseas R&D companies operating in HKSP, employing over 13 000 persons, of which about 9 300 persons (around 72%) are engaged directly in R&D. At the current take-up rate, it is expected that all three phases of HKSP will be fully occupied by 2017-18.

### **Roles of the Science Park in the local I&T Ecosystem**

8. HKSP is now our flagship technology infrastructure which provides facilities, services and a dynamic environment that enable companies to nurture ideas, innovate and develop. HKSP has been offering its facilities and support services through a clustering strategy since its establishment. The five technology clusters are: biomedical technology, electronics, green technology,

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<sup>1</sup> The approved development cost of Phase 2 (except Building 20) was \$3,914 million and was financed by a mix of government equity (62%), government loan (27%) and HKSTPC's internal resources (11%). Building 20 of Phase 2 was financed by HKSTPC's own resources at \$382 million.

<sup>2</sup> The development cost of Phase 3 was financed by a mix of government equity (30%), government loan (25%), commercial loan guaranteed by the Government (35%) and HKSTPC's internal resources (10%).

information and communications technology, and material and precision engineering. There are a number of technology support centres in HKSP, such as the Integrated Circuits Design Centre, Intellectual Property Servicing Centre, Probe and Test Development Centre, Wireless Communications Test Laboratory and Biomedical Technology Support Centre, offering state-of-the-art laboratory facilities to assist the R&D work of technology companies.

9. As reported to the Legislative Council Panel on Commerce and Industry (C&I Panel) in April 2015, pursuant to the recommendations of the Review, HKSTPC will take a more proactive role in promoting the development of I&T in addition to the provision of infrastructure, facilities and support services. HKSTPC will: strengthen its connection with innovators, government agencies, investors and the industry; foster collaboration with international and local universities and research institutions across different technological disciplines; and continue to promote innovative development by creating an inspiring and vibrant ecology and offering custom services to I&T companies at different R&D stages. To achieve these objectives, HKSTPC has rolled out various new initiatives, for example, the Corporate Venture Fund recently launched in July 2015 to encourage private sector investment in technology start-ups, and the establishment of three over-arching cross-disciplinary platforms – namely, healthy ageing, robotics and smart city - to facilitate integration of technologies in innovative products.

10. To nurture technology-based start-ups, HKSTPC provides three incubation programmes, namely, Incu-Tech for new technology start-ups, Incu-Bio for biomedical technology start-ups and Incu-App for those involved in web and mobile technology. As at April 2016, 245 firms were enrolled on HKSP's incubation programmes while 405 start-up companies had graduated from them. To help nurture promising start-ups from its incubation programmes, HKSTPC has launched the Leading Enterprises Acceleration Programme to provide dedicated assistance in marketing skills, business and corporate development.

### **Policy Perspective to Expand Science Park**

11. The Government is committed to developing Hong Kong into a knowledge-based economy and an I&T hub in the region. The objective is to create a vibrant ecosystem for the Government, industry, academia and research sectors to interact under a favourable environment with excellent software and

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hardware support for development and application of technology. To this end, provision of world-class technological infrastructure has all along been one of our core strategies in achieving this objective. However, as mentioned in paragraph 7 above, it is estimated that the supply of R&D office space in HKSP can only meet the demand up to 2017-18. With the Government's strong commitment to using I&T to upgrade industries and stimulate economic growth, there is clearly a strong case for Hong Kong to continue to invest in I&T infrastructure.

12. From the national development perspective, since the reforms and opening-up of the Mainland, the pace of economic integration between the Mainland and Hong Kong has become even faster. Any change in the policies and development focus in the Mainland would have tremendous impact on different economic sectors of Hong Kong, including the I&T sector. It is noted that the Central People's Government will put strong emphasis on innovation according to the National 13<sup>th</sup> Five-Year Plan recently endorsed in March 2016. Along with specific development plans, such as the "Made in China 2025", the Mainland would upgrade from the old development model, which was characterised by polluting and low-end manufacturing, towards high technology and high value-added advanced manufacturing. The demand and intensity of R&D activities of Mainland companies would be further increased. There is no doubt that this will allow us to benefit from the Mainland's development if we take the necessary steps to put in place the essential infrastructure in time.

13. Furthermore, dynamism is required for a healthy science park ecosystem. If no new space is available, the number of new companies coming in would decrease, and HKSP would end up with the existing companies with little momentum for further development. Over time, the interaction between companies in HKSP would diminish, and the ecosystem would ossify. In order to cope with the aforementioned development trend and ensure continuing development of HKSP, we must continue to expand HKSP. The current proposal is to expand the existing HKSP by optimising the use of the remaining vacant site and increasing the development parameters for the construction of new R&D facilities in three stages<sup>3</sup>. Members of the I&T community generally share the same view and have expressed strong support for the continued expansion of HKSP.

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<sup>3</sup> The proposed Science Park Expansion Programme is to be conducted in three stages. Stage 1 will involve the development of two buildings within the Phase 3 site for completion by 2020. Stages 2 and 3 are under planning.

### **Economic Case to Expand Science Park**

14. To take forward SPX1, HKSTPC has engaged consultants<sup>4</sup> to carry out Economic Impact Analysis and Technical Feasibility Studies, which were both completed in September 2015. The results of the Economic Impact Analysis show that HKSP has made significant contributions to the I&T industries. The consultants estimated that the companies located at HKSP currently create a value added of some \$10.8 billion per annum (including direct, indirect and induced impacts), accounting for over 0.4% of Hong Kong's overall gross domestic product (GDP) in 2014<sup>5</sup>. More significantly, HKSP has directly supported over 10 000 jobs. In terms of the proportion of R&D personnel (full-time equivalent) to total persons engaged, over 60% of the staff of HKSP's tenants (excluding the R&D Centres, government agencies and non-profit organisations) are directly engaged in R&D. It represents the largest concentration of business-related R&D personnel (capturing over 50% of the business-related R&D employment) in Hong Kong.

15. There are compelling economic reasons to take forward SPX1, both in terms of tangible economic benefits as well as wider social and economic benefits. The consultants have estimated that the economic contribution of HKSP as a whole to Hong Kong would increase from \$10.8 billion today to \$14.9 billion (when Phases 1 to 3 are fully occupied) and further increase to \$19.0 billion (when achieving full occupancy of Phases 1 to 3 and SPX1). Total employment (comprising direct, indirect and induced employment) brought by HKSP is expected to increase from 17 740 today to 24 310 (when Phases 1 to 3 are fully occupied), and further to 30 650 (when achieving full occupancy of Phases 1 to 3 and SPX1).

16. In addition to the aforementioned tangible economic benefits, HKSP is crucial in performing the important functions of: attracting foreign investment; incubating I&T talents and start-ups; helping I&T companies to scale up; and building up linkages between companies and researchers working in complementary fields. At present, about 35% of the tenants in HKSP are from the Mainland (12%) and the rest of the world (23%), including most of the largest firms in the Park. A significant portion of them was attracted to Hong Kong owing to the facilities and value-added services offered by HKSP. As mentioned above, HKSP is also a key provider of technology incubation programmes with 245 firms currently enrolled on its programmes. In 2015-16, these companies

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<sup>4</sup> ICF Consulting Services Hong Kong Ltd was responsible for the Economic Impact Analysis while Leigh and Orange Limited was responsible for the Technical Feasibility Studies.

<sup>5</sup> Hong Kong's GDP in 2014 is \$2,256 billion.

attracted over \$320 million from angels and venture capitalists. Based on a survey conducted by the consultants, 61% of the tenants reported an increase in employment since moving to HKSP. Nearly half of the tenants considered that HKSP had a vital or very significant impact on the overall performance of their business, particularly in establishing links with business partners and improving image and profile.

## **IMPLEMENTATION PLAN**

### **Scope and Programme**

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17. The site for SPX1 covers about 1.18 hectares on the vacant western corner of the Phase 3 site and the existing transport terminus. The scheme consists of two building blocks (14-storey and 15-storey) over a podium and a single storey basement below, with a total GFA of about 73 760 m<sup>2</sup> (or a total construction floor area (CFA) of about 103 264 m<sup>2</sup>). The additional GFA was allowed in the modification of the Phase 3 land lease i.e. TPTL 204 which was approved by the Tai Po District Lands Conference on 20 October 2015 with increases in the maximum GFA from 105 000 m<sup>2</sup> to 180 000 m<sup>2</sup>, the maximum site coverage from 30% to 50% and the maximum building height restriction from 47 mPD (metres above the Hong Kong Principal Datum) to 75 mPD at the site for SPX1. The master development plan of HKSP including SPX1 is at Enclosure 1. The estimated development cost is \$4,428 million at Money-of-the-Day (MOD) prices (or \$3,637 million at March 2015 price level). This is equivalent to \$35,224 per m<sup>2</sup> of CFA at March 2015 price level (or \$42,880 per m<sup>2</sup> of CFA at MOD prices). The cost estimate has been checked by Architectural Services Department and is within the acceptable price range for normal R&D/Office Buildings.

18. Subject to the approval of this Committee, construction will commence in the second half of 2016 for completion by 2020.

**/Financing .....**

### Financing Arrangements

19. The proposed financing structure for the project is as follows —

	\$ million	Estimated % of total development cost
Government equity	2,878	65
Commercial loan guaranteed by Government	1,107	25
HKSTPC's internal resources	<u>443</u>	<u>10</u>
<b>Total</b>	<b><u>4,428</u></b>	<b><u>100</u></b>

20. While the rental income from existing premises would allow HKSTPC to maintain its daily operation and repay the corresponding Government and commercial loans for Phases 2 and 3 of HKSP, it cannot generate sufficient amount of cash inflow to finance the full development cost of SPX1, which would involve significant initial capital investment. In order to ensure HKSTPC can take forward the development of SPX1 while maintaining a healthy level of cash reserve, the Government has agreed to provide financial support up to \$3,985 million (about 90% of the development cost), with equity injection of \$2,878 million (about 65% of the development cost) and contingent liability to be assumed by the Government for guaranteeing a commercial loan of \$1,107 million (about 25% of the development cost) and the interest arising therefrom. HKSTPC will seek commercial loan for the project having regard to its borrowing and repayment capability. The Government will provide guarantee for HKSTPC in respect of the repayment of the commercial loan and the interest arising therefrom so as to enable HKSTPC to secure the loan with reasonably advantageous terms. HKSTPC will also finance \$443 million (about 10% of the development cost) with its internal resources to demonstrate its commitment to the SPX1 development. This is similar to the funding arrangement for HKSP Phase 3.

21. In determining the above financing structure, we have taken into account HKSTPC's financial position, projected income and expenditure in the coming years, and planned capital works projects and new initiatives in coming years, including the specialised multi-storey industrial building projects being planned under the Revised IE Programme. HKSTPC's cashflow projection is at

Encl. 2 Enclosure 2.

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## FINANCIAL IMPLICATIONS

22. Subject to Members' approval, the Government will inject \$2,878 million to HKSTPC in 2016-17. In addition, the Government will assume a contingent liability for guaranteeing a commercial loan of \$1,107 million to be taken out by HKSTPC and the interest arising therefrom.

23. The project has no recurrent financial implications for the Government. Given that the final project cost may be different from the estimated development cost of \$4,428 million due to various factors such as change in economic conditions, fluctuation of labour cost and cost of construction materials during the construction period, HKSTPC will be required to exercise due care to control the overall project cost. With a view to containing the Government's financial exposure to HKSTPC in relation to the project, the amount of equity injection from the Government and the guarantee for the commercial loan will be **capped at the proposed level of \$3,985 million**. Should the project cost eventually exceed the amount, the Government will provide no further funding support and HKSTPC is expected to resort to its own means to identify project cost savings and seek extra funding means.

## CONTROL MECHANISM

24. The HKSTPC Ordinance (Cap. 565) stipulates that the Corporation is required to operate in accordance with prudent commercial principles. The Corporation will put in place a proper control mechanism to monitor the SPX1 development. Government will monitor the implementation plan of the SPX1 development through the Board of Directors of HKSTPC. The Board, assisted by its Projects and Facilities Committee, will assume overall responsibility in steering and monitoring the development. The budget control and tendering procedures for consultancy and works contracts will be modelled on Government's procedures and practices. HKSTPC will also strengthen its project management team to monitor the design and construction work.

## PUBLIC CONSULTATION

25. We briefed the C&I Panel on 15 December 2015 on the proposal. Members were supportive of the development and proposed funding arrangements. Some Members commented that SPX1 could only address the short to medium term demand for R&D space and the Government should plan for land supply in the longer term to support the development of the I&T industries, in particular,

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high value-added manufacturing activities. To this end, HKSTPC would consolidate its tenant base in HKSP with a view to ensuring the optimal use of the rental offices in the Park. Furthermore, suitable land would be planned and reserved by the Government in new developments to cater for the long-term needs of the I&T industries. In addition, HKSTPC would implement two pilot specialised multi-storey industrial building projects in the Tseung Kwan O IE under the Revised IE Programme and we had consulted the C&I Panel in May 2016.

26. HKSTPC had invited the Sha Tin and Tai Po District Councils to visit Science Park and briefed them on the proposed development of SPX1. In addition, other relevant stakeholders, including the District Councillor of the constituency concerned, representatives of the residential developments and villages nearby had been consulted and expressed concerns on the traffic and visual impact. Through explanations and modification of the design, some of their concerns were addressed. In the traffic impact assessment study conducted for this project, it has found that the implementation of this project would not cause undue impact to the traffic in the vicinity.

## **BACKGROUND**

27. HKSTPC is a statutory body established in 2001 with a public mission to facilitate the establishment and the nurturing of a world-class technology community dedicated to applied R&D in Hong Kong. The Government is the sole shareholder of HKSTPC, which is governed by a Board of Directors appointed by the Government. HKSTPC operates and manages HKSP, three IEs at Tai Po, Yuen Long and Tseung Kwan O, and the InnoCentre at Kowloon Tong.

Master Development Plan of Science Park



## Cash Flow Projection of the Hong Kong Science and Technology Parks Corporation (in \$ million)

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Opening cash balance	670	10,458	7,767	3,808	2,513	944	287	626	1,105	679	810	995	1,207	809
Net cash flow of HKSTPC before the two IE Projects & SPX1 financing	1,019	(668)	188	(692)	198	276	528	670	(135)	416	466	490	483	536
<b>Net cash available for funding the two IE Projects &amp; SPX1 construction</b>	<b>1,689</b>	<b>9,790</b>	<b>7,955</b>	<b>3,116</b>	<b>2,712</b>	<b>1,220</b>	<b>815</b>	<b>1,296</b>	<b>970</b>	<b>1,095</b>	<b>1,275</b>	<b>1,484</b>	<b>1,690</b>	<b>1,344</b>
Development cost (IE Projects) (Note 1)	(355)	(1,126)	(2,149)	(2,277)	(1,596)	(745)								
Development cost (SPX1) (Note 2)	(352)	(897)	(1,998)	(1,047)	(134)									
Government equity injection (IE Projects)	6,598													
Government equity injection (SPX1)	2,878													
Government loan (IE Projects)				1,650										
Commercial loan guaranteed by the Government (SPX1)				1,107										
Repayment of commercial loan (principal/interest)				(36)	(38)	(40)	(41)	(43)	(143)	(137)	(132)	(129)	(733)	
Repayment of Government loan						(148)	(148)	(148)	(148)	(148)	(148)	(148)	(148)	(148)
<b>Ending cash balance</b>	<b>10,458</b>	<b>7,767</b>	<b>3,808</b>	<b>2,513</b>	<b>944</b>	<b>287</b>	<b>626</b>	<b>1,105</b>	<b>679</b>	<b>810</b>	<b>995</b>	<b>1,207</b>	<b>809</b>	<b>1,196</b>

## Note 1:

Total development cost of the IE Projects will be \$8,248 million. This will comprise government equity of \$6,598 million and government loan of \$1,650 million.

Details of Government's financial support in various forms:

2016-17	2017-18	2018-19	2019-20	2020-21	Total
6,598	-	-	1,650	-	8,248

## Note 2:

Total development cost of SPX1 will be \$4,428 million. This will comprise government equity of \$2,878 million, commercial loan (guaranteed by the Government) of \$1,107 million as well as HKSTPC's internal resources of \$443 million:

(a) Details of Government's financial support in various forms:

2016-17	2017-18	2018-19	2019-20	2020-21	Total
2,878	-	-	1,107	-	3,985

(b) Details of HKSTPC's contribution from internal resources:

2016-17	2017-18	2018-19	2019-20	2020-21	Total
-	-	350	-	93	443