

For discussion
on 17 October 2017

Legislative Council Panel on Information Technology and Broadcasting

The Chief Executive's 2017 Policy Address Policy Initiatives of Innovation and Technology Bureau

Background

The Government is committed to promoting innovation and technology (“I&T”) development. Since the establishment of Innovation and Technology Bureau (“ITB”) in November 2015, we begin to see results in the promotion of I&T development. The 2017 Policy Address, announced by the Chief Executive on 11 October, has outlined clear directions for the Government to promote I&T development. This paper briefs Members of the Panel on Information Technology and Broadcasting (“ITB Panel”) on the relevant measures.

Development Directions

2. As announced in the new Policy Address, the Government would step up its efforts to develop I&T in eight major areas, including: (a) increasing resources for research and development (“R&D”); (b) pooling together technology talent; (c) providing investment funding; (d) providing technological research infrastructure; (e) reviewing existing legislations and regulations; (f) opening up government data; (g) Government to lead changes to procurement arrangements; and (h) strengthening popular science education. We will also actively promote the development of smart city with a view to making Hong Kong a more liveable city. To achieve this, we will implement various new initiatives and strengthen the on-going initiatives, in order to diversify our economy, enhance Hong Kong’s competitiveness and improve people’s quality of life.

New Initiatives

Opening up Government data

3. We currently release over 3 100 unique datasets in digital formats and over 1 000 application programming interfaces for free public use through

“data.gov.hk”. We will continue to promote and support bureaux and departments (“B/Ds”) to open up more datasets in various areas, including medical and health, transport, education, commerce and economy, environment, recreation and culture, housing, land development, etc., which will serve as important raw materials for technological research, innovation, big data analytics and smart city development. This not only would improve the efficiency of city management, bringing more convenience and better quality of living to our citizens, but would also facilitate the development of various industries and the overall economy.

4. To tie in with the open data policy, the Hospital Authority will establish a Big Data Analytic Platform to explore useful information for formulating healthcare policy, facilitating biotechnological research and improving clinical and healthcare services, with a view to promoting innovation in healthcare services.

Government to lead changes to procurement arrangements

5. The Government will lead changes to encourage local R&D. ITB will review jointly with the Financial Services and the Treasury Bureau the procurement arrangements. Without violating the principles of the Government Procurement Agreement of the World Trade Organisation, we will explore incorporating I&T as a criterion into the procurement arrangements, rather than solely considering the lowest priced bid, in order to encourage potential tenderers to invest in R&D.

Supporting I&T Start-ups

6. Cyberport has been actively promoting the overall I&T ecosystem in Hong Kong and nurturing technology start-ups and talents. This includes setting up Smart-Space co-working space and small offices of around 120 000 sq. ft. in the Cyberport campus, offering well-equipped offices with flexible leasing schemes combined with a series of ancillary measures such as seminars, business consultant service, etc., to provide necessary support for start-ups.

7. To further support I&T start-ups, Cyberport will participate in and support the Government’s “Space Sharing Scheme for Youth” to provide around 20 000 sq. ft. of Smart-Space co-working space outside its existing campus at affordable rent for start-ups, in order to provide a favourable environment for innovation and entrepreneurship.

Smart City

8. Smart city development can improve people's daily living and make Hong Kong a more liveable city. The consultant engaged by the Office of the Government Chief Information Officer ("OGCIO") submitted its study report on smart city blueprint in mid-2017. The consultant recommended a series of short-, medium- and long-term initiatives under six areas, namely "Smart Mobility", "Smart Living", "Smart Environment", "Smart People", "Smart Government" and "Smart Economy", as well as in promoting further opening up of data. We briefed the ITB Panel in July 2017 and conducted a two-month public consultation in August and September 2017. The responses from various sectors are very positive. We are examining with relevant B/Ds views from various sectors of the community and advance the publication of a smart city blueprint that is in line with the situation in Hong Kong by end-2017. Prior to this, we will invest \$700 million to push ahead with three key infrastructure projects for smart city development -

- (a) Electronic Identity ("eID"): having regard to continuous development in personalised e-commerce and e-Government services, it is increasingly important to be able to securely and reliably verify users' identities online. The Government plans to develop a digital personal identification authentication platform to provide an "eID" for all Hong Kong residents, allowing citizens to use a single digital identity and authentication to conduct government and commercial transactions online. Apart from facilitating the public to use e-Government services, the application of eID can be further expanded for online services provided by public bodies and private companies, making identity verification and privacy protection on the Internet simpler and securer, which can support smart city development;
- (b) Multi-functional Smart Lampposts: drawing from the experience of other international cities, smart lampposts installed with multiple sensors are an essential smart city infrastructure. We will launch a Multi-functional Smart Lampposts pilot scheme at selected urban locations to provide convenient data services and collect various real-time city data, including traffic, weather and air quality, etc. to enhance city and traffic management. OGCIO, in collaboration with the Highways Department and other relevant departments, will implement the pilot scheme by installing in selected urban locations Multi-functional Smart Lampposts equipped with multi-functional sensors, data network and related digital facilities (e.g. Wi-Fi). The initiative will also complement the future infrastructure development for the 5th generation (5G) mobile communication services in Hong Kong;

- (c) E-Government systems reform: new information and communications technology infrastructure is an indispensable part of smart city development. To facilitate B/Ds to deliver e-Government services in a more reliable and efficient manner, we will reform the government cloud infrastructure, aiming for completion in 2020. Besides making use of modern cloud computing technologies and services, we will also implement the following two new platforms:
- (i) Application framework platform: this platform will allow shared use of resources by B/Ds to reduce the development time of information systems and provide more agile, timely and efficient e-Government services; and
 - (ii) Big data analytics platform: this platform will facilitate B/Ds to expedite the development of big data applications, reduce the overall cost of developing and operating big data analytics and artificial intelligence application, thus enhancing e-Government services.

Steering Committee on Innovation and Technology

9. As I&T development involves various sectors, inter-bureau cooperation and coordination are necessary. The Government will establish a high-level, inter-departmental “Steering Committee on Innovation and Technology”, which will be chaired by the Chief Executive, to examine and steer measures under the eight areas of I&T development and Smart City projects, with a view to driving the I&T development of Hong Kong in a highly effective manner.

Transferring the Efficiency Unit (“EU”) to the ITB

10. With its team of professionals and network of external partners, the EU has been supporting B/Ds in enhancing operational efficiency and providing convenient public services. In the process, the application of technology has become increasingly important. In view of this, the Chief Executive announced in the Policy Address that the EU will be transferred from the Chief Secretary for Administration’s Office to ITB, in order to build a stronger team to further promote innovation within Government departments and provide convenient services to the public. Also, ITB plans to increase its number of staff to take forward various key initiatives.

On-going Initiatives

Promoting the use of technology by the government to improve public services

11. The previous Policy Address announced that a block funding of \$500 million was earmarked for ITB to assist Government departments to use I&T to improve public services. We will continue to use the funding to assist Government departments in promoting the adoption of I&T to enhance the quality, efficiency and effectiveness of public services. The scheme rolled out in mid-2017 and was well received by departments. ITB has just agreed to provide over \$100 million to fund more than 20 applied technology projects or studies proposed by departments, covering technologies on internet of things, big data, artificial intelligence, radio frequency identification (“RFID”), etc. Some of these projects can commence in this financial year (2017-18) the earliest.

Promoting information and communications technology (“ICT”)

12. We have been promoting ICT through various means in all sectors of society. In the 2017/18 school year, OGCIO continues to implement “Enriched IT Programme in Secondary Schools” in eight partner schools and support other secondary schools to organise enriched IT activities. It is estimated that around 10 000 students will participate, involving around \$10 million of funding support.

13. Regarding the industry, OGCIO will organise the 3rd “Internet Economy Summit” in April 2018, where industry experts and enterprise leaders across the world will be invited to interact and share their insights on the development trends and opportunities of the Internet economy. More than 2 000 participants are expected to attend the Summit.

14. OGCIO will continue to organise the “Hong Kong ICT Awards” (“HKICTA”) to recognise and promote outstanding ICT inventions and applications. The preparatory work for the next HKICTA, which includes eight award categories, has started. Selected local industry associations and professional bodies will participate in organising the event. To align with the Government’s overall direction in fostering smart city development, three award categories are related to smart city, including: “Smart Living”, “Smart People” and “Smart Mobility”.

15. Data centres are critical technology infrastructure to facilitate digital development of various industries, supporting the development in technology

areas such as cloud computing, big data and artificial intelligence, which in turn promote the growth of various high-value added economic activities, including finance, trade, logistics and e-commerce. Hong Kong is the prime location for setting up data centres in the Asia Pacific region. Many multi-national corporations have set up data centres in Hong Kong. To facilitate the development of data centres, the Government has introduced the following measures -

(a) **Supplying Land**

The Government has reserved 3 hectares of land for high-tier data centre development in Tseung Kwan O. A tier-4 ready data centre (tier-4 is the highest tier of international standard for data centres) has already been built on the first 1-hectare site. The Government plans to arrange disposal of the remaining land for high-tier data centre development in the first half of next year;

(b) **Using existing industrial buildings and industrial lots for development of data centres**

The Government will continue with the two concessionary measures, including encouraging the conversion of industrial buildings into data centres and developing high-tier data centres on industrial lots. The market response to the abovementioned measures has been positive. As at September 2017, we received 31 applications for conversion of existing industrial buildings into data centre use, and approved one application regarding development of data centre on an industrial lot and

(c) **Providing Facilitation Services**

Through its Data Centre Facilitation Unit, OGCIO provides support and cross-departmental coordination service to companies that are interested in setting up data centres in Hong Kong. The Lands Department, together with OGCIO, has further streamlined the procedure for issuing waivers for conversion of existing industrial buildings into data centres. Processing of eligible applications can be done within two weeks.

Wi-Fi Connected City

16. We are implementing the “Wi-Fi Connected City” programme by expanding progressively the coverage of free “Wi-Fi.HK” service in Hong Kong. In September last year, we launched a pilot project using the public-private collaboration model. Four service providers participated under the scheme to provide Wi-Fi service at about 190 government venues. In

addition, we launched a subsidy scheme in March this year to assist non-profit-making organisations to provide Wi-Fi service at their youth service centres and study rooms, involving 177 locations with over 500 hotspots. These Wi-Fi hotspots have been progressively launched since August. We also encourage public and private organisations to participate in the “Wi-Fi.HK” brand to provide Wi-Fi services at more non-government venues. As of September 2017, the number of free “Wi-Fi.HK” hotspots was close to 20 000. We will continue to increase free Wi-Fi hotspots at different locations in Hong Kong through various initiatives under the programme to cater for the needs of local people and visitors. Moreover, to enhance the security of the “Wi-Fi.HK” service, we have adopted digital server certificates in the “Wi-Fi.HK” service provided in all government venues to facilitate the public and visitors in authenticating the Wi-Fi service. At the same time, we also encourage participating organisations of “Wi-Fi.HK” brand to use digital service certificate in their “Wi-Fi.HK” services.

I&T and Daily Living

17. We launched the \$500 million Innovation and Technology Fund for Better Living (“FBL”) in May this year to fund I&T projects which will make people’s daily living more convenient, comfortable and safer, or address the needs of specific community groups. We held four briefing sessions to promote FBL to eligible organisations. The Secretariat has received over 600 enquiries and more than 10 applications.

18. Besides, we will continue to take forward digital inclusion initiatives which make use of ICT to assist the groups in need, in particular the elderly and persons with disabilities. We will establish a web-based learning and sharing portal to help the elderly and persons with disabilities acquire life and digital skills in a fun and accessible manner, so that they can improve their daily lives by making greater use of digital technology. We will also continue to take forward “ICT Outreach Programme for the Elderly” and promote adoption of accessible design in websites and mobile apps, etc.

E-Government

19. Apart from taking measures as mentioned in para. 8(c) above to reform e-Government systems, we are also carrying out the pre-construction works for the construction of the Government Data Centre Complex, including the associated design and site investigation, in order to drive the development of e-Government. We plan to seek funding approval from the Finance Committee of LegCo in 2018 to commence the construction works.

20. Facing the increasingly frequent cyber threats, we will continue to update and uphold the Government's information security policies and practices, strengthen the information security culture and facilitate the sharing of information on cyber threats within the Government and with external (including local and international) professional organisations, in order to raise the cyber security awareness and defense capability of the Government and the local industry.

Way forward

21. In the past two years, the atmosphere of I&T in Hong Kong has gradually improved. The initiatives mentioned by the Chief Executive in the new Policy Address have not only set clear directions for the further development of I&T in Hong Kong, but also showed the Government's determination in developing a smart city. ITB will continue to work hand in hand with other B/Ds, the industry and other stakeholders to drive the development of new economy by I&T, so that Hong Kong can become a notable new power in the global competition of I&T, and to build Hong Kong into a world-class smart city.

**Innovation and Technology Bureau
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