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Panel on Information Technology and Broadcasting

Meeting on 22 July 2014

**Updated background brief on facilitating a digital economy
under the Digital 21 Strategy**

Purpose

This paper provides an update on facilitating a digital economy under the Digital 21 Strategy and summarizes the latest views and concerns expressed by Members on the subject.

Background

2. The latest version of the Digital 21 Strategy was published in December 2007 and is a blueprint for the development of information and communication technology ("ICT")¹ in Hong Kong. The focus of the Digital 21 Strategy is to advance Hong Kong's achievements, seize new opportunities and harness its advantage so as to strengthen its position as a leading digital city. The ultimate aim is to promote Hong Kong's economic development and to provide better services to citizens. The Statements of Desired Outcomes of the Five Action Areas under the Strategy are: facilitating a digital economy, promoting advanced technology and innovation, developing Hong Kong as a hub for technological cooperation and trade, enabling the next generation of public services, and building an inclusive, knowledge-based society.

3. According to the Administration, the desired outcome for the action area of facilitating a digital economy is: "Hong Kong has the standards,

¹ ICT refers to all technologies and applications that involve information processing and/or exchange over communication networks, including the internet.

infrastructure, legal framework and talent that are needed to facilitate a vibrant digital economy, and to enable our core industries to sustain and improve their competitive position. Our community, individuals and businesses are aware of the opportunities brought by a knowledge-based society and have confidence in their ability, skills and professionalism to take full advantage of the opportunities to enhance our economic prosperity and quality of life." The Administration has been working closely with the ICT industry to formulate and implement initiatives to drive the development of Hong Kong's digital economy. The major initiatives include:

- (a) development of cloud computing and data centres;
- (b) ICT collaboration with the Mainland;
- (c) development of ICT start-ups;
- (d) promoting the adoption of ICT among small and medium enterprises ("SMEs");
- (e) ICT manpower development;
- (f) Green ICT; and
- (g) The International IT Fest 2013.

Previous discussions

Panel on Information Technology and Broadcasting

4. The Panel on Information Technology and Broadcasting ("the ITB Panel") generally supported the development of the Digital 21 Strategy and received regular reports from the Administration on its implementation.

Support for ICT small and medium enterprises

5. At the Panel meeting on 8 July and 9 December 2013, some members noted that only 70% of the 270 ICT graduates of the incubation programmes run by Cyberport and Science Park were still in operation, they enquired whether the Administration had carried out any review on the reasons for the failure of the remaining 30% of ICT start-ups which were not able to survive after completion of the programmes. Some other Panel members opined that the Administration should provide more support to SMEs in adopting ICT to facilitate business development, and be more

proactive in fostering the development of local ICT industry by providing more business opportunities for the SMEs through the procurement of their services and products.

6. According to the Administration, a sustainability rate at 70% of the ICT start-ups graduating from the incubation programme was quite high. In most cases, the major reason for failure did not lie in the lack of resources, but in the nature of the products or mode of business operation which posed difficulties in attaining success in business start-up. The Administration advised that over the past few years, various funding schemes, including the Sector-specific Programme ("SSP"), had been implemented to support SMEs. In May 2013, a new round of SSP was launched by setting aside \$3 million for sponsoring projects to develop applications and solutions for individual SME sectors to promote the adoption of ICT. Non-profit organizations were also welcome to apply.

7. The Administration further advised that it had all along been adopting fair, open and impartial procedures to procure the most suitable ICT products and services. Information on government procurement arrangements and funding schemes which would help foster the development of local ICT industry, and associated statistics and performance indicators provided by the Administration are in the **Appendix**.

ICT manpower development

8. At the Panel meeting on 8 July and 9 December 2013, members noted that the Administration continued to facilitate the creation of an environment in which a well-qualified ICT workforce could flourish and meet the needs of the industry. In relation to university and secondary school students, the Administration put considerable emphasis on nurturing them to pursue ICT as their career. For example, the Cyberport had, as part of its public mission to nurture human capital, organized the Hong Kong-Shanghai ICT Internship Programme since 2011 for university students to work in ICT settings in Shanghai for six to 12 weeks. The Administration also sponsored another promotion programme targeting students of Secondary 3 to 6 to inculcate interest in ICT. The programme covered a research study on the aspirations of students in relation to ICT, and a series of activities including mobile application development competition, short message/video clip competition, interschool debate on ICT-related topics and TV programmes promoting the ICT industry.

9. With regard to the ICT industry, members noted that the Administration organized an IT Man Workshop in December 2012, in which over 50 participants from the ICT industry exchanged views on issues related to ICT manpower in Hong Kong. Drawing on discussions at the

workshop, the Administration implemented further measures to facilitate the sustainable development of manpower in the ICT industry. In addition, the Digital 21 Strategy Advisory Committee had set up the Task Force on ICT Professional Development and Recognition to explore and establish a framework on ICT professional certification and recognition in Hong Kong, with reference to international practices and frameworks of other economies.

Development of data centres, green ICT and cloud computing

10. At the Panel meeting on 8 July 2013, members noted that the Administration had implemented a host of measures to develop Hong Kong into a regional data centre hub. With the Government's support for the provision of land for high-tier data centres, the Tseung Kwan O Industrial Estate housed a cluster of 12 high-tier data centres. The Administration also earmarked two hectares of land in Tseung Kwan O outside the Industrial Estate for high-tier data centre development. To drive data centre development, the Administration launched two incentive measures in June 2012 to encourage the conversion of eligible industrial buildings for data centre use and development of high-tier data centres in industrial lots. Besides, the Data Centre Facilitation Unit ("DCFU") established under the Office of the Government Chief Information Officer ("OGCIO") proactively provided information and one-stop services to organizations interested in the development and operation of data centres.

11. Some members enquired about the adoption of green ICT practices in the Government and the industry. The Administration advised that the Government was committed to promoting green ICT and had implemented a range of green ICT initiatives. In 2010, the OGCIO promulgated the "Green Data Centre Practices" for reference and adoption by bureaux and departments ("B/Ds") in their data centre management. All relevant B/Ds had undertaken to adopt the recommended practices, and would fully implement these recommendations when renewing systems and facilities as well as setting up new data centres. To promote energy-saving practices in the industry, OGCIO also made available in 2012 the "Green Data Centre Practices" for reference by the industry through the data centre thematic portal.

12. At the Panel meetings on 9 December 2013 and 28 January 2014, some members enquired about the development of cloud computing in Hong Kong. According to the Administration, the Government had taken the lead in using cloud services to drive industry development. The Expert Group on Cloud Computing Services and Standards from the industry, academia and professional bodies, had also developed a set of best practices and guidelines for the local community, so that cloud services could be deployed and adopted widely while ensuring security.

City-wide Wi-Fi for the public and visitors and Internet of Things

13. At the Panel meetings on 9 December 2013 and 9 June 2014, members expressed concern about the development of public Wi-Fi service and the stability of connection and data transmission speed of the Government Wi-Fi programme ("GovWiFi"). The Administration advised that GovWiFi service was currently provided at about 450 Government premises with 2 530 hotspots. By 2015, GovWiFi would be extended to 600 Government premises with 2 700 hotspots. With the concerted efforts of the industry and the Government, it was estimated that the number of public Wi-Fi hotspots providing completely free or time-limited free of charge services would be doubled from 10 000 currently to 20 000 by the end of 2014.

14. At the Panel meeting on 8 July 2013, some members enquired about the development of Internet of Things ("IOT") in Hong Kong. The Administration advised that developing IOT for Hong Kong could be the next strategic step forward under the Digital 21 Strategy. IOT comprised smart interconnected devices such as radio-frequency identification systems and sensors which linked people and devices with data, and enabled them to obtain information from data sources to drive effective business decisions or improve customer interactions. The Hong Kong Internet of Things Centre of Excellence had been set up by GS1 ("香港貨品編碼協會") Hong Kong at Hong Kong Science Park, which was supported by the Innovation and Technology Commission of the HKSAR Government. One of the Centre's visions was to become an industry support platform that enabled Hong Kong's development of IOT for the industry's continuous development.

Review of the Digital 21 Strategy

15. At the Panel meeting on 9 December 2013, the Administration briefed members on the proposed 2014 Digital 21 Strategy ("the proposed Strategy") and the related public consultation. The theme of the proposed Strategy was "Smarter Hong Kong, Smarter Living". The Strategy set out the framework for Hong Kong to leverage on new technologies to propel continuous economic development, build platforms for sharing and collaboration, deliver intuitive and integrated e-services to the public and foster a thriving ICT industry.

16. Some members considered that steering from the top echelon of the Government was vital for the successful implementation of the proposed Strategy. The Administration advised that it attached great importance to the development of ICT in Hong Kong. After public consultation, the

proposed Strategy would be further deliberated among the various bureaux and departments concerned. The Administration would also consult the Steering Committee on Innovation and Technology (chaired by the Financial Secretary to coordinate the formulation and implementation of innovation and technology policies) on the subject where appropriate.

Finance Committee

17. At the special meeting of the Finance Committee on 2 April 2014, some members enquired about the co-ordination work of the Government in providing Wi-Fi services at public places. The Administration advised that in establishing the GovWiFi service, the OGCIO took a leading role in the programme coordination, management and support of the service. To facilitate private operators' roll-out of Wi-Fi networks, the Office of the Communications Authority ("OFCA") assisted the industry in resolving the technical and related problems of installing Wi-Fi equipment on lamp posts. OFCA and the Highways Department had since early 2013 conducted meetings with the operators regularly to review and streamline the approval process and installation requirements, so as to facilitate the operators to make use of lamp posts for the installation of Wi-Fi equipment.

Latest position

18. The Administration will brief the Panel on 22 July 2014 on the progress made in facilitating a digital economy under the Digital 21 Strategy.

Relevant papers

19. A list of the relevant papers with their hyperlinks is at:

http://www.legco.gov.hk/yr15-16/english/panels/itb/papers/itb_eb.htm

<http://www.legco.gov.hk/yr13-14/english/fc/fc/agenda/fc20140331.htm>

Panel on Information Technology and Broadcasting
Follow-up Action Arising from the Meeting on 8 July 2013

Facilitating a Digital Economy

Government Procurement Arrangements for ICT Products and Services and Associated Statistics and Performance Indicators

The Government implements various initiatives to spur the development of the local ICT industry. As a major ICT user, Government fosters industry development through procurement of ICT products and services. In line with Government's procurement policy to acquire the most suitable and value-for-money goods and services to support Government's service to the public, the Administration adopts an open, fair, transparent and competitive process in procuring ICT products and services. Given that both local and overseas suppliers and service providers can bid for Government contracts, there is no preset performance indicator on the adoption of local ICT products and services.

2. The Office of the Government Chief Information Officer (OGCIO) has made available a number of standing offer agreements (SOAs) to facilitate Government bureaux and departments to procure ICT products. Figures on local ICT products procured through SOAs as at 31 August 2013 are set out below —

	Number of Vendors			Number of products		
	Total	Local ¹	Percentage	Total	Local ²	Percentage
Hardware	206	24	12%	10 275	308	3%
Software	281	19	7%	656	57	9%
Total	317	42	13%	10 931	365	3%

3. Since January 2010, the total value of local ICT products procured by Government through SOAs amounts to over \$16 million.

¹ Local vendors/companies refer to companies registered and with headquarters in Hong Kong.

² Local products refer to those products developed or manufactured by local companies.

4. Moreover, Government has also adopted a number of ICT services provided by local companies. In late July this year, OGCIO awarded SOAs to 44 companies for the provision of information technology professional services to Government, 27 of which are local companies (i.e. around 62%).

5. Government fosters the development of the local ICT industry through, for example, adoption of an active outsourcing policy. Moreover, by allowing its contractors to use the ICT systems and software developed for Government for other purposes, Government seeks to enable them to open up more business opportunities. According to information on hand, 12 local contractors have successfully exploited the ICT systems and software developed for Government to further develop new ICT products or resell the products to other customers.

Funding Schemes and Associated Statistics and Performance Indicators

6. The Government has set up funding schemes in support of local industries, including the ICT industry. Local ICT organisations or enterprises can apply to the “SME Development Fund” and the “Dedicated Fund on Branding, Upgrading and Domestic Sales” for implementing projects to enhance the competitiveness of the local ICT industry, and to assist local enterprises in developing brands, upgrading and restructuring their business operations and accessing the Mainland market.

7. Under the “SME Development Fund”, among the 73 applications approved since January 2010, 11 (15%) come from the ICT industry. The total approved amount for these 11 applications is around \$10.4 million, with an average of about \$1 million per application. The projects cover preparation of practice guidelines, training workshops, business matching sessions, etc.

8. There are two streams under the “Dedicated Fund on Branding, Upgrading and Domestic Sales”, namely “Organisation Support Programme” for industry organisations and the “Enterprise Support Programme” for individual enterprises. Under the “Organisation Support

Programme”, among the 24 applications approved since its launch in end-June 2012, three (13%) come from the ICT industry. The total approved amount for these three applications is around \$12.5 million, with an average of about \$4.2 million per application. The projects cover participation in Mainland exhibitions, setting up “Hong Kong pavilions” in exhibitions to showcase Hong Kong brands, organizing seminars involving enterprises from the Mainland, etc.

9. During the same period (i.e. since end-June 2012), the “Enterprise Support Programme” has approved 121 applications, of which nine (7%) come from the ICT industry. The total approved amount for these nine applications is around \$3.2 million, with an average of about \$360,000 per application. The projects cover development of ICT systems or platforms, promotion of ICT products, etc.

10. There is no preset performance indicator for the above funding schemes on projects for the ICT industry.

Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
September 2013