

For information on
22 July 2014

**Legislative Council Panel
on Information Technology and Broadcasting**

Facilitating a Digital Economy

Purpose

This paper updates Members on the progress of initiatives to facilitate a digital economy under the Digital 21 Strategy.

**Hong Kong's Information and Communications Technology (ICT)
Environment**

2. Hong Kong has a world-class ICT infrastructure and an open, competitive and safe environment that is conducive to the development of a vibrant ICT industry. With some 16 800 business establishments, the ICT sector generated business receipts and income amounting to HK\$1,254 billion, representing 6.2% of our GDP as of 2012. With the concerted efforts of the Government, ICT industry, academia and the community, Hong Kong has consistently performed well in international ICT rankings. For instance, we ranked first globally in respect of “technological infrastructure” of the World Competitiveness Yearbook 2014 by International Institute for Management Development. For three consecutive years from 2011 to 2013, we ranked as the safest place in Asia for setting up data centres. Our household broadband penetration of 83% and mobile penetration of 237% (as of March 2014) are among the highest in the world. Our average peak Internet connection speed of 66 Mbps is the second worldwide, and the average connection speed at 13.3 Mbps is the third in the world (1st Quarter, 2014).¹

3. The Government has been working closely with the local ICT industry and supporting organisations to drive the development of our digital economy and enhance Hong Kong's position as a regional ICT hub. An ICT Industry Coordination Working Group was also set up to coordinate ICT events to promote Hong Kong as a prominent ICT city and help local ICT industry to tap into the Mainland and overseas market. The major initiatives are highlighted in the ensuing paragraphs.

¹ According to the "State of the Internet" report for the 1st Quarter, 2014 published by Akamai.

Data Centre Development

4. Data centres constitute an essential part of the infrastructure in a knowledge-based economy. The Government fully supports the development of data centres, especially high-tier ones, in Hong Kong as the backbone to our economic growth. We have implemented a multi-pronged strategy to facilitate the development of data centres in Hong Kong, including —

- (a) ***Providing land for data centre use*** — Over the years, the Hong Kong Science and Technology Parks Corporation (HKSTPC) has provided some 19 hectares of land in Industrial Estates for data centre development. The Tseung Kwan O Industrial Estate now houses a cluster of 11 high-tier data centres. We have also earmarked two hectares of land in Tseung Kwan O outside the Industrial Estate for high-tier data centre development. The first one-hectare site was sold through public tender successfully in October 2013. We are now working with relevant government departments to make available the second one-hectare site for data centre use in 2015.
- (b) ***Encouraging the use of industrial buildings and industrial lots for data centres*** — We have 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. Responses from the industry have been encouraging. We have received a total of 11 applications (nine for conversion and two for development). Seven of the applications for conversion have already been approved, and the remaining four are being processed.
- (c) ***Providing one-stop support services*** — The Office of the Government Chief Information Officer (OGCIO) established a Data Centre Facilitation Unit (DCFU) in July 2011 to provide one-stop support services to enterprises interested in setting up data centres in Hong Kong. DCFU provides information on available sites and locations, power supply, water cooling and energy efficiency measures, etc. through its thematic website. It also works with relevant government departments on measures to address the unique operational requirements of data centres. Since its establishment, DCFU has handled over 300 enquiries from enterprises within and outside Hong Kong, and assisted three overseas and two local companies to establish high-tier data centres in Hong Kong.

ICT Collaboration with the Mainland

5. The Government co-operates with Mainland authorities in three areas, namely mutual recognition of electronic signature certificates issued by Hong Kong and Guangdong (Mutual Recognition), technology collaboration and technology exchanges.

6. The pilot Mutual Recognition scheme was rolled out in 2010 under the “Mainland and Hong Kong Closer Economic Partnership Arrangement” (“CEPA”) and the “Framework Agreement on Hong Kong/Guangdong Co-operation”. In light of the experience gained from the pilot and on the basis of the consultancy studies, Hong Kong and Guangdong jointly established the standing arrangement for the mutual recognition of electronic signature certificates issued by the two places in August 2012. Certification authorities in the two places, with approval by relevant authorities, can issue electronic signature certificates with mutual recognition status for use in cross-boundary transactions, thereby facilitating secure e-commerce between Hong Kong and Guangdong.

7. On technology collaboration, in view of the increasing popularity of cloud computing as IT service delivery mechanism in the community and businesses, the Government encourages Hong Kong experts and industry practitioners to collaborate closely with the Mainland on the development of cloud computing. In July 2012, OGCIO and the Economic and Information Commission of Guangdong Province (GDEI) jointly established the “Hong Kong/Guangdong Expert Committee on Cloud Computing Services and Standards”, with a view to promoting the adoption and development of cloud computing, as well as nurturing cloud computing talents of the two places. Since then, we have organised regular joint events on cloud computing with Guangdong, e.g. the 2nd Guangdong-Hong Kong Cloud Computing Conference in Guangzhou in December 2013, the Cloud Security Round-table Meeting and the Hong Kong-Guangdong Cloud Industry Conference in Hong Kong in June 2014. We will continue to coordinate with the local cloud computing industry for participation in the pilot assessment scheme being conducted by Guangdong on security management of cloud computing services.

8. On technology exchanges, we actively participate in major Mainland ICT events to facilitate the local ICT industry to access the Mainland market. In May 2014, OGCIO led a delegation to participate in the 18th International Soft China in Beijing and set up a Hong Kong Pavilion to showcase Hong Kong’s innovative ICT products and services. OGCIO also led delegations to visit Nansha and Qianhai in October 2013 and February 2014 respectively to facilitate the local ICT industry to explore business opportunities.

ICT Manpower Development

9. In the 2014-15 Budget, the Financial Secretary proposed to incorporate enrichment programmes in secondary schools which are outstanding in IT education to cultivate young IT professionals and even entrepreneurs to meet the development needs of a digital society. In consultation with the school community, IT industry stakeholders and tertiary institutions, we drew up the proposed Enriched IT Programme in secondary schools, and sought the endorsement of the Steering Committee on Innovation and Technology and the Legislative Council Panel on Information Technology and Broadcasting in June 2014. We have submitted funding proposal to the Finance Committee in July 2014 for consideration with a view to commencing the Programme in the 2015/16 school year.

ICT Start-ups

10. Start-ups play a pivotal role in driving innovation and sustained development of Hong Kong's ICT industry. However, by their very nature, ICT start-ups usually lack the requisite resources, connections and experience to commence and sustain their business. OGCIO implements a multi-pronged approach to promoting the development of tech start-ups in Hong Kong.

11. To provide a sustainable platform for tech start-ups and investors to meet and mingle, OGCIO launched an interactive portal known as iStartup@HK in March 2014. Apart from serving as a one-stop shop for providing a comprehensive range of practical information, the portal, more importantly, also serves as an online networking platform for tech start-ups to promote their companies and products, giving them an additional channel for reaching out to investors and other business partners. We have also set up a "Tech Startup Corner" in Hong Kong Productivity Council's SME One, which provides similar support to start-ups and handles their enquiries offline. In recognition of the vibrancy and achievements of local tech start-ups and to further encourage their development, we have newly added the "Best ICT Startup Award" category in this year's Hong Kong ICT Awards to celebrate exemplary start-ups and boost the entrepreneurial culture in Hong Kong.

Adoption of ICT among SMEs

12. According to the "Report on Survey on Information Technology Usage

and Penetration in the Business Sector for 2013” published by Census and Statistics Department (C&SD) in March 2014, ICT adoption rates among small and medium enterprises (SMEs) have been increasing steadily. The key findings are set out below —

	2009	2013	Change
<i>Percentage of Medium-sized Establishments</i>			
Using Personal Computers	89.9%	93.9%	+4.0%
Having Internet Connections	85.6%	90.3%	+4.7%
Having Webpages / Websites	46.2%	60.4%	+14.2%
<i>Percentage of Small-sized Establishments</i>			
Using Personal Computer	59.8%	72.2%	+12.4%
Having Internet Connections	57.0%	72.2%	+15.2%
Having Webpages / Websites	15.8%	20.7%	+4.9%

13. According to the survey, the major reason of SMEs for not using computers, Internet, and having webpages is lack of practical use for a sound business case for adoption. On the other hand, the survey indicated that the adoption of cloud computing by SMEs was not high (12% for medium-sized enterprises and 6% for small-sized enterprises).

14. Cloud computing allows SMEs to adopt ICT solutions that are suitable for their scales of operation with low start-up costs and reduced requirements for technical know-how and manpower resources to cope with system maintenance and upgrade. To facilitate the adoption of cloud computing among SMEs, we launched a portal on cloud computing (InfoCloud) in January 2013 to provide SMEs with useful information on cloud computing, user guides and best practices. These publications help SMEs understand the benefits of using cloud computing, how to select cloud services as well as common issues that SMEs should be mindful of when adopting cloud services, such as security and switching between service providers.

15. Moreover, in the 2014-15 Budget, the Financial Secretary proposed to promote cloud computing applications among SMEs and provide training to help them adopt appropriate cloud solutions. A Cloud Promotion Campaign, comprising training and promotional activities, will be launched in the third quarter of 2014 to promote wider adoption of cloud computing among SMEs.

16. Over the years, the Government has put in place a Sector-specific Programme (SSP) and IT Training Programme (ITTP), providing funding support to 24 projects in 17 sectors since the launch of the programmes in 2004. As at June 2014, we have completed 22 such projects, benefiting over 20 000 SME practitioners. The remaining two projects, namely “e-Track System” and “Flag-bag Easy” commenced in December 2013 and will complete in end 2014. The e-Track System is a mobile and cloud-based application for fleet management, while the Flag-bag Easy is an application to enhance the logistics of flag-bag collection by leveraging on mobile and cloud technologies.

17. We launched a new round of SSP in March 2014 to provide funding support to projects that develop applications and solutions to encourage SMEs to adopt ICT to enhance their operational efficiency and create business opportunities. We are now evaluating the proposals received. We expect to complete the selection process in the third quarter of 2014.

18. To promote ICT adoption among SMEs and to create opportunities for local ICT companies to understand the business requirements of SMEs, OGCIO organised a couple of events under the brandname of 「中小企和IT人有個約會」 featuring short one-on-one exchange sessions between small-scale IT companies and SMEs to discuss how ICT solutions can address SMEs’ business needs. The events also provide valuable opportunities for local ICT companies to seek business collaboration with potential clients. Two exchange sessions were organised in April and June 2014, with the latter one targeted specifically for the travel industry. Over 120 participants from 40 SME organisations and 46 ICT companies have joined the two exchange sessions. The participating SMEs and ICT companies found these exchange sessions useful. We plan to organise these exchange sessions regularly to promote wider adoption of ICT and innovative solutions among SMEs.

19. On the other hand, to foster the development of local ICT SMEs, we proactively promote local ICT SMEs through multifarious channels. For instance, at this year’s International IT Fest, we have set up a dedicated exhibition showcasing local IT products, including those developed by ICT SMEs and start-ups. To provide overseas promotion opportunities for local ICT companies, OGCIO also leads delegations to major ICT trade shows, primarily in the China market. Last year, Hong Kong’s first-ever delegation to the China International Software and Information Service Fair (CISIS) included 15 Hong Kong enterprises, comprising ICT SMEs and incubatees of Cyberport and Science Park. A Hong Kong Pavilion was set up in the CISIS to enable the participating ICT companies to showcase their innovative products and services. We will continue to identify more opportunities for local ICT SMEs and start-ups to reach out to potential investors and markets.

International IT Fest 2014

20. OGCIO collaborated with technology partners (including Cyberport, Science Park, Hong Kong Productivity Council and Hong Kong Trade Development Council) and the local ICT industry to organise Hong Kong's second International IT Fest (IT Fest) from 7 to 20 April 2014. IT Fest 2014 achieved the objective of showcasing Hong Kong's ICT achievements and strengths in areas where Hong Kong is developing fast. Through organisation of 38 events including a number of high profile and renowned international ICT events, as well as events for the community and students, the IT Fest has successfully enhanced and promoted Hong Kong's image as a leading ICT hub in the region. The list of the 38 events is at Annex.

21. IT Fest 2014 registered a total participation of around 60 000 attendees representing 30% increase from 46 000 in 2013. The participation rates of many events under the IT Fest exceeded expectation, with some recurring events breaking new records.

22. Feedback from the industry about IT Fest 2014 was positive and local ICT industry had actively participated in the two-week IT Fest. This year's IT Fest had been successful in serving as a focused platform for the local ICT industry and overseas experts to exchange information and collaborate. Within the community of Hong Kong, the IT Fest 2014 has increased the understanding and awareness of the general public (in particular students) regarding the development and achievements of the local ICT industry.

23. Riding on the success of this year, we are planning for next year's IT Fest to be held on 10-26 April 2015.

**Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
July 2014**

Events of International IT Fest 2014

Date	Event
7 April 2014	Hong Kong ICT Awards 2014 Awards Presentation Ceremony
7-11, 14-15 April 2014	ISO/IEC Joint Technical Committee 1 SubCommittee 27 Meeting
8 April 2014	2014 Internet Hall of Fame Induction Ceremony
8 April 2014	ICT Conference 2014 – Future Digital Opportunities for Better Life
8 April 2014	Microsoft CityNext Forum Series: A Better Third Age Through Technology
8-10 April 2014	The 8th Annual Counter eCrime Operations Summit (CeCos VIII)
10 April 2014	Green Data Centre Experience Day
10 April 2014	Internet Leadership Summit
10-11 April 2014	Smarter City – Essential to Life
11 April 2014	International Conference on Information Security Standards
11 April 2014	Hong Kong Internet of Things Conference 2014
11 April 2014	SME ICT Experience Day
11, 14-17 April 2014	IT Exploration Tour for Secondary Students
11-13 April 2014	Startup Weekend HK
12 April 2014	CoCoon Pitch Day
12 April 2014	IT Teacher Award Ceremony cum IT in Education Expo
12 April 2014	Seminar on Free and Open Source Software in Hong Kong
12-13 April 2014	The IET/MATE Hong Kong Underwater Robot Challenge 2014
12-13 April 2014	MoDev Hong Kong 2014 – Forum, Disruptathon & Hackathon
13 April 2014	E2: Entrepreneur Square – Tech x Social
13-16 April 2014	International ICT Expo
14 April 2014	Battle Silicon in Cyberport
14 April 2014	BIP Asia Seminar Series
14 April 2014	International Conference on Mobile Technology
14 April 2014	The Internet of Everything: Smarter Hong Kong – HK Electronics Symposium
14 April 2014	Web Accessibility Recognition Scheme Awards Presentation Ceremony

Date	Event
14-15 April 2014	ISACA China HK Chapter Annual Conference 2014 – The Next Generation of IT Governance & Risk Management
15 April 2014	Silicon Dragon Hong Kong 2014
15 April 2014	SME 2.6 Conference
15-17 April 2014	Social Media 2014 – 19th Education and Technology Conference
16 April 2014	Digital Entertainment Leadership Forum 2014
16-17 April 2014	IoT Symposium 2014 / IoT Applications and Big Data – Enabling Hong Kong as a Connected and Smart City
17 April 2014	“Top 10 .hk Website Competition” Award Presentation Ceremony
17 April 2014	Build a Secure Cyberspace Security Seminar
17 April 2014	Smart Elderly IT Star Awards Presentation Ceremony 2014
18 April 2014	AppJamming – Girls Who Code Workshop
18-21 April 2014	Easter Fun with smart objects at HK Internet of Things Centre of Excellence
19-20 April 2014	Hong Kong ICT Fair