

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

**2016 Policy Address
Policy Initiatives of Innovation and Technology Bureau**

Background

The Chief Executive published the 2016 Policy Address on 13 January. Its Chapter IV sets out a number of measures to promote the development of innovation and technology (“I&T”), including information technology (“IT”). This paper briefs the Panel on Information Technology and Broadcasting on the relevant measures.

New Initiatives

Digital Development and Smart City

Building a Connected Wi-Fi City

2. Within three years, we will progressively expand the coverage of free Wi-Fi service by doubling the number of hotspots. Through public-private participation, we will increase the number of “Wi-Fi.HK” hotspots from 17 000 to 34 000. We will install free Wi-Fi hotspots at places with high patronage, including public rental housing estates, public hospitals, markets, parks, sitting-out areas, promenades, tourist spots, public transport interchanges, land boundary control points and other public places. We will also work with different organisations to install “Wi-Fi.HK” hotspots at facilities such as bus stops and shopping centres, providing free Wi-Fi service to the public.

3. To support e-learning, we will offer free Wi-Fi service at all youth service centres and study rooms run by the Government and non-profit-making organisations to facilitate students in using e-textbook and e-learning resources through the Internet. We will collaborate with schools to enhance the quality of their Wi-Fi service to complement the Support Scheme for e-Learning in Schools of Education Bureau.

4. Moreover, we will progressively increase the speed of Wi-Fi service in government premises by doubling the connection speed of each user to 4 Mbps. We will also enhance the security measures for “Wi-Fi.HK” service such as adopting server digital certificate to facilitate

Wi-Fi users in verifying the identity of the service providers so as to reduce the risk of the public in connecting to fake “Wi-Fi.HK” hotspots, thereby providing secure, efficient and reliable public Wi-Fi service.

Developing Smart City

5. We will, in collaboration with research institutions, public and private organisations, study the development of “smart city”, including opening up more public data to facilitate market development of mobile applications for the convenience of the public, and developing intelligent homes. In addition, we will engage a consultant, which will, through consultation with relevant stakeholders, formulate a “smart city” digital framework and standards suitable for Hong Kong, laying the foundation for “smart city” development.

Big Data

6. Public Sector Information (“PSI”) is the raw material for emerging industries such as big data analytics and mobile application development. Through mining, collocation, elaboration and design of PSI datasets, the public can develop innovative applications and solutions that bring convenience to the public, while creating business opportunities and benefitting society.

7. The Government launched the PSI portal “data.gov.hk” last year, providing more than 5 000 datasets in different categories for free for the public and businesses. We will continue to work with public service providers and commercial organisations in opening up more data.

Encouraging midstream and applied research

8. Hong Kong has world-class universities and research capability. We hope to focus on encouraging universities to conduct more midstream and translational research and development (“R&D”) for better articulation with downstream R&D, so that the projects will be able to attain greater scientific achievements and enjoy more realisation/commercialisation opportunities.

9. We propose to establish a \$2 billion midstream R&D fund to encourage, through investment income, institutions funded by the University Grants Committee to conduct theme-based research in key technology areas. We will set specific research topics (e.g. smart city, regenerative medicine, healthy ageing, etc.) and actively encourage R&D

personnel in the institutions to explore technologies or outcomes that can be applied in these areas.

Supporting Innovation and Technology Start-ups

10. Providing support to start-up companies is of particular importance to the development of I&T. There are breakthroughs in Hong Kong in recent years. In addition to the comprehensive incubation programmes of Hong Kong Science Park (“HKSP”) and Cyberport which support start-ups in R&D and assist them to open up markets, the number of incubation and co-work locations funded and operated by the business sector has increased to over 40, showing an encouraging growth when compared to just a few in 2010. At present, there are about 1 600 start-ups in these incubation and co-work locations, most of which are technology companies. According to an international study in 2015, the growth of Hong Kong’s start-up ecosystem ranked among the top five in the world.

11. Technology start-ups will only thrive with capital injection at different stages of development. At present, ITF, the Cyberport Creative Micro Fund and different university funding schemes are providing some seed-stage funding. In addition, HKSP set up a \$50 million Corporate Venture Fund last year, which co-invests on a matching basis with angel investors or venture capital funds in start-ups in HKSP or those who have participated in its incubation programmes. In the coming year, Cyberport will allocate \$200 million to set up a Cyberport Venture Fund for investing in its incubated information and communications technology (“ICT”) start-ups. Cyberport will also increase its Smart-Space small offices and workstations by 50% within the next year, providing working space at concessionary rents with flexible tenancy terms to start-ups.

12. In order to encourage more venture capital funds to invest in local technology start-ups, we propose to set up a \$2 billion Innovation and Technology Venture Fund (“ITVF”) for co-investing with private venture capital funds on technology start-ups on a matching basis. ITVF will co-invest in Hong Kong’s technology start-ups with a number of selected venture capital funds at an investment ratio of about 1 to 2. We will finalise the implementation details of ITVF, such as selection criteria for venture capital funds, terms of matching investment and monitoring mechanism in due course. We will also continue to provide

comprehensive support to technology start-ups at different stages of development through HKSP and Cyberport.

Innovation and Technology and Living

13. I&T development is closely related to people's livelihood. In order to promote the use of I&T in improving people's lives, we plan to set aside \$500 million to set up an Innovation and Technology Fund for Better Living, to be spearheaded by the Innovation and Technology Bureau ("ITB") to finance projects that make use of innovative ideas and technologies to improve people's daily lives. The fund will be open to applications by non-governmental organisations, public service organisations and enterprises, who will need to put up specific proposals to improve the daily life of our people. As the fund will cover a wide range of areas, we will invite relevant bureaux to assist in the vetting process as necessary. We will finalise the operation details such as vetting criteria and subsidy format, etc.

On-going Initiatives

Enhancing e-Government Services

14. Internet services are very common in Hong Kong. However, there are still a number of government services that do not support the submission of online applications, and members of the public have to submit these forms physically by fax or post, etc. To further enhance and meet the public demand for e-government services, we will accord priority in fully digitising the process of online submission of commonly used government forms and those with a high utilisation rate, to allow the public in using e-Government services in a simpler and quicker manner, while enhancing the operational efficiency of the Government.

Revamping "GovHK"

15. "GovHK" is a one-stop portal for government information and e-services, which allows the public to more easily search for and access to a series of government information and services. To enhance user experience and meet the ever-rising public demand for mobile services, we are revamping the layout of the "GovHK" portal and will adopt responsive web design to facilitate the public to browse government information and use online services on various devices smoothly.

Facilitating Data Centre Development

16. Data centres are essential infrastructure for supporting Hong Kong's sustained economic growth and consolidating our position as a trading and financial centre. The Government will continue to implement measures to facilitate the development of data centre. Upon completion of several data centres in Tseung Kwan O, Kwai Chung and Tsuen Wan (including Industrial Estates and those provided by the private sector) in the coming two years, the Gross Floor Area (“GFA”) for data centre development in Hong Kong will increase to 660 000 m². Moreover, we have reserved three hectares of land in Tseung Kwan O for development of data centre by private sector. The first site of about one hectare was sold in October 2013, and the second site of a similar size is expected to be put up for tender bidding next year. These two sites will provide a GFA of about 100 000 m². We are also studying the feasibility of using rock caverns for data centre development to meet market demand in the long run. In addition, the Government has introduced in June 2012 two incentive measures to encourage conversion of industrial buildings with data centres and development of high end data centres on industrial lots. As of end 2015, we have approved 15 applications, involving the GFA of about 120 000 m². We will continue to provide facilitation and co-ordinate inter-departmental support to enterprises that are interested in setting up data centres.

Building Government Data Centre Complex

17. The Finance Committee of the Legislative Council approved in 2015 the funding on pre-construction consultancy services for the government data centre complex, including the related design and site investigation work, with a view to addressing the long-term demand for data centre services by bureaux/departments. The consultancy work, which will draw up a concrete timetable and expenditure estimates for construction of the new complex, commenced in December 2015 and is expected to be completed in late 2017.

Promoting the development and application of cloud computing

18. The Government has always encouraged the development and adoption of new technologies, products and services, including cloud computing, in order to support the development of various industries and nurture local expertise. In 2015, we launched the “SME Cloud Promotion Campaign” to further promote the adoption of cloud computing services by small and medium enterprises. In addition, we

will make good use of the cloud platforms provided by the Government and private sector to deliver convenient, reliable and cost effective services to various Government departments.

Information security

19. Information security is an important cornerstone for supporting the rapid development of e-commerce and digital city. Awareness, education and training are three vital attributes for the overall information security framework. Through close collaboration with the Hong Kong Computer Emergency Response Team Coordination Centre and industry organisations, we will continue to provide computer emergency response services and promote information security awareness for businesses and the public. In addition, through the “InfoSec” portal, the “Cyber Security Information Portal”, and various publicity channels, the Government provides latest security information to the general public.

20. Within the Government, we have already formulated a comprehensive set of information security policies, guidelines and procedures for compliance by all bureaux and departments. We plan to launch a new round of information security risk assessment and compliance audit in 2016, requesting all bureaux and departments to review the adequacy of their security measures in addressing various security threats and compliance with the Government’s information security policies and guidelines. Through introducing information security services and advanced security facilities and technologies from the local industry, we will continue to enhance the information security capability within the Government.

21. In recent years, there has been a growing trend of cyber attacks. To strengthen support for the Government’s information and cyber security, the Office of the Government Chief Information Officer established the Government Computer Emergency Response Team Hong Kong last year to coordinate computer emergency response and incident handling of all bureaux and departments. By joining the Computer Emergency Response Team Coordination Center and the Forum for Incident Response and Security Teams, we have established close contacts with other national or regional computer emergency response teams to share information on security threats, vulnerabilities and incidents in a timely manner. This helps to strengthen the capability of the Government in monitoring, preparing for and responding to cyber threats and attacks. In 2016, we will participate in the joint incident response drill organised by the Asia Pacific Computer Emergency

Response Team to coordinate efforts in tackling cross-boundary cyber attacks.

Promoting Digital Inclusion

22. The Government has always encouraged the elderly and underprivileged groups to use ICT. As mobile applications that suit their needs are not commonly available in the market, we have launched the Support Scheme on Digital Inclusion Mobile Apps since 2012 to provide funding support for non-governmental organisations to develop mobile applications suitable for the elderly and underprivileged groups so as to encourage their wider use of ICT, enhance their quality of life and further integrate them with the society.

23. We have been organising ICT Outreach Programmes for Elderly with three elderly service organisations since 2014 to reach out to the institutionalised and “hidden” elderly people and teach them how to use tablets and digital technology. Since last year, we have extended the service target to seniors receiving day care centre service and home care service, in order to benefit more elderly people.

24. To facilitate browsing and access to online information and services by everyone in society (including the elderly and persons with disabilities), we will continue to actively encourage barrier-free design in websites of public and private organisations and mobile applications.

Cultivating local ICT talents

25. The Government launched the “Enriched IT Programme” in 2015 to work with secondary schools, tertiary institutions and the industry to scout and cultivate IT talents early in their secondary school years. Eight partner schools have started running enriched IT classes since the 2015/16 school year to nurture students with potential from Secondary Two. In addition, secondary schools will organise 50 IT activities each year to cultivate students’ interest in IT.

Organising International IT Fest

26. We will continue to organise the International IT Fest 2016 from 11 to 23 April to showcase Hong Kong’s ICT achievements. The first Internet Economy Summit will also be held during the period. The Summit aims to bring together renowned industry experts and leaders across the world to share their insights on the latest developments on the

Internet-driven economy and discuss how to make use of technology in bringing economic growth.

Way Forward

27. With the establishment of ITB and the implementation of a number of new policies and initiatives, we plan to review the functions and structure of the Advisory Committee on Innovation and Technology, including how it can complement with other advisory bodies, to make it more effective and focused in tendering advice to the Government on the long-term development of I&T. The ITB will proactively communicate with stakeholders from the Government, industry, academia and research sector, co-ordinate policies on I&T and forge consensus in the community, thereby fostering local I&T development.

**Innovation and Technology Bureau
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