For discussion on
9 February 2009

Legislative Council Panel
on Information Technology and Broadcasting

Progress Report on the Digital 21 Strategy

Purpose

This paper updates Members on the Digital 21 Strategy (the Strategy), and seeks Members' views on our proposal to develop Key Performance Indicators (KPIs) to measure progress.

Background

2. The latest version of the Strategy was published in December 2007. Since then, we have defined Statements of Desired Outcomes (SDOs) for the five action areas in the Strategy. These 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. We have since refocused the action plans to align them with the desired outcomes. Moving forward, we intend to develop KPIs to measure progress towards the desired outcomes and to continually refine the action plan in the light of progress made and developments in the environment for information and communication technology (ICT). The Office of the Government Chief Information Officer (OGCIO) provides regular progress updates to Members. We last briefed Members on progress in June 2008 and consulted Members on the development of the SDOs.

Finalising the Statements of Desired Outcomes

4. The SDOs set out qualitatively what we are seeking to achieve in each of the five action areas under the Digital 21 Strategy. After consultation with Panel Members, the Digital 21 Strategy Advisory Committee (D21SAC), industry bodies and the public, we finalised the SDOs in September 2008. The final version is at **Annex A**.

Developing Key Performance Indicators

5.   For a strategy to be effective, it should guide the deployment of resources in pursuit of a clear objective.   The SDOs are a useful qualitative statement of our strategic objectives but they do not, in themselves, enable us to measure whether the goal has been achieved, or the rate of progress towards it. We plan to develop KPIs corresponding to each SDO.   These can be used to set quantifiable targets, to communicate progress toward our goals, to assist in identifying gaps in the programme and to guide resource allocation.

6.   For some years, we have been tracking a number of indicators of ICT development (see **Annex B**).   However, most of these indicators are not directly relevant to the SDOs and we have not considered it appropriate to set targets for them. We need more directly relevant KPIs, so that it will be appropriate to set targets for them, and so that they can be used to guide the allocation of resources.   We envisage that there should be around three KPIs for each of the five SDOs.

7.   Some aspects of the SDOs seem to lend themselves to econometric indicators.   For instance, our success in facilitating Hong Kong to develop as a hub for technological cooperation and trade might be indicated by measuring the share of Mainland IT services, imports and exports accounted for by Hong Kong business establishments, and/or by the share of global IT services trade mediated through Hong Kong.

8.   Other aspects of the SDOs seem to lend themselves more to measurement of stakeholder opinions.   For instance, our success in delivering the next generation of public services might be indicated by comparing customer satisfaction with the delivery of public services, with customer satisfaction with the delivery of services by the best commercial and voluntary organizations.

9.   We have consulted the D21SAC, which supports the proposal to develop KPIs.   We propose to set the appropriate KPIs so that we can start measuring them later this year.   We propose to set targets after we have validated the KPIs with about two years' experience of measuring them.   We will invite relevant stakeholders, including ICT-related bodies, to provide input in the KPI design.

Action plan for facilitating a digital economy

10.   The desired outcome for the action area of facilitating a digital

economy is: *"Hong Kong has the standards, 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."*

Helping IT professionals

11.   In the light of the current economic situation, we are examining ways we can help ICT professionals who lose their jobs to remain in the industry. We hope to work with industry bodies to facilitate a clearing-house where unemployed ICT professionals can be matched to employment opportunities, training, support for self-employment and ICT-related voluntary work.

12.   To support the development of IT talent in the longer term, we are working with the industry to draw up a roadmap for the development of professional qualifications.   This will help IT professionals plan career development, and will enable us to identify areas where we can support the development of further qualifications, and build up systems for the recognition of the professional qualifications.

Developing the institutional infrastructure to support the digital economy

13.   In order to enhance the community's ability to respond effectively to computer emergencies, we have reviewed the services of the Computer Emergency Response Centre (CERC).   We will implement the recommendations of the review, including the enhancement of the Hong Kong Computer Emergency Response Team Coordination Centre's (HKCERT) public awareness programmes and communications with various stakeholders on emergency response.

14.   In order to ensure that the ".hk" Internet domain is administered in the interest of the community as a whole, we have worked with the Hong Kong Internet Registration Corporation Limited (HKIRC) on the implementation of improved corporate governance arrangements.   In December 2008, the HKIRC formed a smaller Board of Directors to focus on strategic and operational governance.   In the light of suggestions made at the special Panel meeting on 11 December 2008, we have invited the new Board to devise and implement an open and transparent process for selecting members of the Consultative and Advisory Panel.   We have also initiated discussions with the company on a new Memorandum of Understanding.   We plan to brief the Panel in more

detail about the institutional changes of the HKIRC in April 2009.

15.   In recent years, there have been significant improvements in the ease of use of digital certificates.   At the same time, there has been a growth in risks of identity fraud.   Widespread adoption of digital certificates for both public and private sector transactions could bring significant benefits both in minimizing the risk of fraud, and in reducing the costs associated with online security.   We have initiated a study in how we can more effectively promote adoption.

Facilitating ICT-enabled businesses

16.   We plan to embark on a review of Hong Kong's competitiveness as a location for ICT-enabled businesses to help us identify whether there is any need for updating our legal framework to facilitate the development of ICT-enabled businesses which can serve a regional or global market.

IT-enabled collaboration under the Closer Economic Partnership Arrangement (CEPA)

17.   A framework for the mutual recognition of digital signature certificates between Guangdong and Hong Kong would encourage the provision of more cross-border electronic transaction services and further promote the development of electronic commerce between the two places.   Under Supplement V to the CEPA, we are cooperating with the Department of Information Industry of the Guangdong Province and the Ministry of Industry and Information Technology (MIIT)[1] in developing such an arrangement. Certification Authorities on both sides have been invited to develop pilot schemes in mutual recognition.

Action plan for promoting advanced technology and innovation

18.   The desired outcome of the action area of promoting advanced technology and innovation is: *"Hong Kong is a leading Asia Pacific location for research and innovation – both in technology and in developing innovative business models. We attract talent and investment locally, regionally and globally and maximise the benefits of collaboration with mainland research and development efforts. Open competition gives market participants the incentive to invest in advanced information and communications technology (ICT) to*

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[1] It was formerly the "Ministry of Information Industry".   The new name "Ministry of Industry and Information" was adopted in July 2008.

meet market needs."

Promoting research and innovation

19.   The Government will continue to promote the development of innovation and technology through a wide range of funding programme and technological infrastructure. The $5 billion Innovation and Technology Fund (ITF) has been recently enhanced whereby the maximum funding support under the Small Entrepreneur Research Assistance Programme has been increased from $2 million to $4 million. Besides, the subsidy and coverage of the Internship Programme under the ITF have also been increased to provide more opportunities to develop our human capital.

20.   Phase Two of the Hong Kong Science Park was opened in September 2007 and all buildings will be completed by early 2011 to provide more space for research and development (R&D) activities by innovation and technology enterprises. Meanwhile, the five R&D Centres established in April 2006 are conducting applied R&D for transfer to the industry. Since the inception of the R&D Centres, 177 R&D projects involving funding support of $874 million have been approved. More than half of the approved projects were undertaken by the R&D Centre on ICT as well as the R&D Centre for Logistics and Supply Chain Management Enabling Technologies. These were primarily projects concerning ICT related areas with substantial market potential such as high definition television, Light Emitting Diode technology, and radio frequency identification tags and readers, etc.

Collaboration with Mainland research efforts

21.   To capitalize on the synergy between the technology development of Hong Kong and Shenzhen, the governments of the two cities signed an agreement in May 2007 to take forward the "Shenzhen/Hong Kong Innovation Circle" arrangement. The two cities have since implemented various cooperative measures, including jointly funding collaborative R&D projects, and organizing technology exchange activities. In May 2008, the two cities successfully invited Dupont, the globally renowned R&D enterprise, to set up its global photovoltaic business headquarters and R&D centre in Hong Kong, and a related manufacturing base in Shenzhen. We hope that this could be a model for similar cooperation projects, attracting high quality overseas enterprises to conduct research and carry out production in Hong Kong and Shenzhen respectively. We are now actively discussing with Shenzhen on the action plan for the coming three years.

22.   To the ICT sector, the National 11th Five-Year Plan, which places emphasis on "autonomous innovation" and the need to expedite the building up of the national innovation system, represents a golden opportunity for business and collaboration.   To leverage on this development, we have set up collaboration mechanisms with different Mainland authorities to enhance technology cooperation.   The "Mainland-Hong Kong Science and Technology Cooperation Committee" has been set up with the Ministry of Science and Technology to formulate and coordinate technology exchange and collaboration programmes.   A new mechanism has been established to process applications from local universities and research institutes for setting up state key laboratories in Hong Kong.   We have also signed a cooperation agreement with the MIIT to enhance technology cooperation in various areas of the information industry and to encourage enterprises, research institutes and experts from Hong Kong to participate in the formulation of national standards relating to information industry.

23.   In 2008, the R&D Centres set up by the Government continued to actively collaborate with the Mainland industries and research institutes.   They participated in a number of promotional forums and seminars on the Mainland (e.g. the Hi-tech Fairs in Shenzhen and Chongqing) to seek further cooperation opportunities.   These activities could enable the Centres to better understand the challenges faced by industries in these regions, and develop applied R&D project ideas that can meet the actual market needs, enabling Hong Kong to serve as the hub of technological development and cooperation for these regions.

Facilitating investment in advanced ICT to meet market needs

24.   To maintain Hong Kong as a leading wireless city, the Government has successfully auctioned a total of 90 MHz of radio spectrum in the 2.5 GHz band for the provision of broadband wireless access (BWA) services in January 2009.   The three successful bidders would pay a total spectrum utilization fee (SUF) of $1.5357 billion.   The Telecommunications Authority will issue BWA licences upon receipt of the SUF and the performance bond from the successful bidders.   With the release of the spectrum, the public will have a wider choice of innovative services and they can enjoy broadband access to the Internet and multimedia services any time, anywhere and while on the move.

25.   The development of mobile television will stimulate developments in various sectors of the communications value chain, including innovation in delivery networks, creation of new content and services, and manufacturing of new reception devices.   Currently, the 2.5G and 3G mobile

telecommunications platforms allow operators to deliver audio-visual content on demand mainly through streaming technologies. In some countries, there are mobile television operators harnessing digital broadcasting technologies to deliver audio-visual content to a critical mass of viewers with high reception quality. However, the introduction of such broadcast-type mobile television services requires dedicated frequency spectrum. Taking into account the outcome of the consultation exercises conducted in 2007 and 2008 respectively and in accordance with the market-led, technology-neutral and facilitating regulatory approach, the Commerce and Economic Development Bureau has mapped out an implementation framework for the introduction of broadcast-type mobile television service in Hong Kong. The Telecommunications Authority will auction in 2009 one frequency multiplex in the Ultra High Frequency Band and two frequency multiplexes in Band III for provision of broadcast-type mobile television services.

26.   The two domestic free television programme service licensees, Asia Television Limited (ATV) and Television Broadcasts Limited (TVB), successfully launched digital terrestrial television (DTT) on 31 December 2007. They are now providing a total of 13 free DTT channels, including the simulcast of the four analogue channels, a 24-hour high-definition television channel and round-the-clock news channels. The DTT coverage and take-up reached 75% and 32.3% respectively. The Government is collaborating with ATV and TVB to continue with the DTT network construction. With 22 more fill-in transmitting stations to be built from 2009 to 2011, the ultimate DTT coverage will be on a par with, or better than, that of the existing analogue television broadcasting.

Action plan for developing Hong Kong as a hub for technological cooperation and trade

27.   The desired outcome of the action area of developing Hong Kong as a hub for technological cooperation and trade is: *"Business establishments located in Hong Kong play a significant role in the local, global and Mainland markets for ICT and digital content services. Innovative ICT-enabled business models are used to compete globally in many other areas. Collaboration with international and Mainland entities is a major factor in successfully serving a variety of export markets as well as Mainland and local customers."*

Joint trade promotion with the Mainland

28.   The Mainland is both a vast market for consumption of IT services/products and a significant source of technically-capable and

cost-effective talent. There is a growing opportunity for Hong Kong to become the base from which the Mainland talent pool is mobilized to provide IT services and products for the global market. Equally, there is an opportunity for Hong Kong to become a centre that enables smaller technology-based companies in other markets to export their products and services to the Mainland.

29.   The Government sponsored the Hong Kong Software Outsourcing Alliance to co-organize with the Hong Kong Trade Development Council (HKTDC), the Hong Kong Productivity Council and its Guangdong partner overseas trade missions to the United Kingdom, Ireland, and Germany in November 2007 and March 2008 respectively. The Government Chief Information Officer also led a delegation of the local and Mainland ICT industry for a visit to Australia in November 2008 to promote Hong Kong / Mainland as a destination for software outsourcing and to identify potential partners to tap the Mainland ICT market.

30.   The OGCIO has continued to provide funding sponsorship to the HKTDC in organizing industry delegations and setting up Hong Kong Pavilions at international and Mainland trade fairs/exhibitions (such as the China International Cartoon and Animation Festival in May 2007, the MIPCOM[2] in October 2008, etc.). We will also sponsor the HKTDC to support local ICT small and medium-sized enterprises (SMEs) to showcase their products and services at the Hong Kong ICT Expo 2009 to be held in April this year.

31.   In the coming year, we will work with the local industry and with Mainland partners to define a collective "brand proposition" for Hong Kong and China as a supplier of IT services and software. We will also work with the HKTDC, InvestHK, the local industry and Mainland counterparts to put together a plan for promoting and delivering the brand proposition.

Short-term measures to assist local IT industry

32.   ICT human resources are essential to the development of Hong Kong as an ICT hub.   In the light of the current economic situation, we will explore special measures to assist the local IT industry.   Apart from maintaining the existing outsourcing approach of the Government IT programme (and accelerating projects where possible), we will examine ways to make it easier for local ICT companies to find new opportunities in case their existing customers have cancelled or postponed projects.   We are working with industry bodies to organize promotional and business matching activities to

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[2] MIPCOM is the world's audiovisual content market held annually in Cannes.

facilitate local ICT SMEs in showcasing their capabilities and in making business propositions to potential customers.

Cyberport

33.   Cyberport provides state-of-the-art infrastructure, supporting facilities and a favourable campus environment for the development of a strategic cluster of high quality IT and related enterprises as well as academic, research and industry support organisations.   Cyberport has now attained its desired tenant mix, and it has laid the foundations for achieving greater public mission benefits from the cluster effects amongst its tenants as well as from the support it can provide for the wider ICT community.

34.   Cyberport currently has 20 SME tenants.   There are also 26 incubatees which have graduated upon successful completion of a programme of business development; and the incubatees have created a total of 381 new jobs, 61 original intellectual property rights, and have received a total of 34 local and overseas awards/honours.

35.   We plan to brief the panel in more detail about Cyberport in March 2009.

Task Force on Industry Facilitation

36.   We will set up a Task Force on Industry Facilitation in the first quarter of 2009 comprising members from the industry and relevant bureaux and departments to advise the Government on brand positioning, as well as trade and investment promotion for Hong Kong as a centre of ICT.

Action plan for enabling the next generation of public services

37.   The desired outcome of the action area of enabling the next generation of public services is: *"The Government provides people with the services they need, in an efficient, convenient manner, which is as pleasurable and straightforward as dealing with the most customer-friendly organizations in the commercial and voluntary sectors. Government policy priorities such as healthcare reform are enabled by appropriate and world-leading use of ICT. The internal efficiency of Government approaches that of the most efficient commercial organizations.   Transparency and public engagement are enhanced through leveraging ICT."*

Improving online service delivery

38.   We plan to enhance the existing one-stop access portal - GovHK by allowing citizens to create personal accounts that provide them access to multiple services such as online government services they have subscribed to, messages and reminders relevant to their areas of interest, etc.   This is to provide an improved user experience for citizens to interact with the Government.   We will discuss the details of the enhancements with this Panel in March 2009.

39.   We also plan to enhance the look and feel of GovHK, and plan to, in due course, introduce services such as an integrated "frequently asked questions" engine to deal with queries about Government services.

40.   In line with the commitment made in the recent Policy Address, we are examining ways to enable the Government to collect public opinion from the Internet more actively.

Improved bureaux/departments (B/D) efficiency and enhancing B/D services

41.   B/Ds continue to implement major ICT projects to improve efficiency and service delivery.

42.   Significant achievements since June 2008 include:

- Roll-out of the Transport Information System in July 2008 for internal use by the Transport Department (TD) to support its daily operation.   Later this year, TD will complete the development of a web-based Public Transport Enquiry Service and Driving Route Search Service, which will enable public transport users and motorists to search for optimal routes.   The TD has also provided sample Intelligent Road Network data to interested companies of the motor trade industry and the wireless telecommunication industry for them to consider how they can make use of the data to provide enhanced services to the public.

- Continued development by the Treasury of a new service-wide Government Financial Management Information System (GFMIS). The first phase covering general ledger and associated reporting functions was rolled out successfully in December 2007, and the second phase covering the remaining functions is scheduled for completion in early 2009–10.   This new GFMIS will improve

Government accounting and financial management operations and processes, provide more comprehensive financial management information to support decision making, and also provide accrual accounting functionality.

- Completion of the upgrading of the Web-based School Administration and Management System in January 2009. This is being rolled out to schools progressively over the next two years. It will enhance efficiency in schools, and free up staff time from administration work so that more time can be devoted to tasks more directly related to teaching and learning.

- The implementation of the IT system to support the elderly health-care voucher pilot scheme.

- Completion of the IT infrastructure setup and the migration of IT systems in the new Independent Commission Against Corruption headquarters building.

- Roll-out of the final modules of the Immigration Department's Application and Investigation Easy System. These modules will improve efficiency and reliability, and support electronic delivery of additional services in the areas of Right of Abode, Certificates of Entitlement, Permits & Visas, and Travel Passes.

43.   Significant new projects, and projects in the pipeline include:

- Major upgrade of Multimedia Information System (MMIS) for the Hong Kong Public Libraries. The upgraded system will enhance the readiness of the system for future development, improve system accessibility, enhance customer services, provide enriched MMIS content, improve cost effectiveness of library events and programmes, and improve library operation. The Finance Committee approved this project on 16 January 2009.

- Replacement of the Computerised Social Security System. The new system will achieve benefits in the administration of social security schemes in terms of operational efficiency as well as customer services. The Finance Committee approved the project on 16 January 2009.

- Implementation of Information System Strategy Projects by the

Customs and Excise Department (C&ED). The projects will form a reliable, secure and scalable IT network with a department-wide connection to enable the C&ED to enhance its performance through effective use of updated IT facilities and applications, and to cater for the department's future IT needs.

- The progressive development and deployment of systems to enable territory-wide sharing of electronic health records (eHR) with patient consent between healthcare professionals in both the public and private sectors. These systems will provide an essential infrastructure to support the implementation of healthcare reform. They will enhance continuity of care and efficiency when healthcare services are provided by different healthcare providers, from primary doctors to hospital practitioners, in the public and private sectors. The programme will address the need for eHR systems with sharing capability to be deployed in the private sector, as well as the need to incentivise the use of eHR systems and the sharing of patients' records with their consent. The Food and Health Bureau (FHB) will brief the Panel on Health Services in greater detail in due course, prior to seeking funding approval from the Finance Committee.

  The eHR programme will be one of the largest Government programmes with a major IT component in coming years. The development programme and roadmap cover a broad range of issues relating to eHR development including institutional arrangements, information and technical standards, legal, privacy and security issues, and partnership between the public and private sectors. The programme will be managed by a dedicated eHR Office within the FHB with support from the Hospital Authority IT Service. The OGCIO is also involved in the design of programme management arrangements, and in ensuring consistency with Government IT policies on issues such as privacy and security and technical standards.

44.   In order to speed up the execution of Government IT programmes, we are reviewing the entire project process from feasibility study stage to the actual realization of benefits. The first improvement we are piloting is the adoption of a more standard approach to procurement, which should substantially reduce the time it typically takes to prepare tender documents. It is hoped that this will result in more rapid award of contracts for projects for which funding approval is granted in the 2009-10 financial year and beyond.

Developing the Government IT profession

45.   In recent years, the size of the Government IT programme has grown substantially, but without any corresponding increase in the civil service IT manpower. This has been accomplished through increased outsourcing of system development, and greater use of contract staff. The role of Government IT professionals is consequently shifting from in-house system development to management of contractors and vendors. There is also an increased need to advise B/D management about the strategic role of ICT in supporting policy objectives, and a continuing need to manage daily IT operations.

46.   To reflect the changing role of Government IT professionals, we will enhance skills and implement new ways of operation to better enable them to inspire and support B/Ds in the use of ICT to achieve their policy objectives.

47.   With reference to the best practice in leading countries like the United Kingdom as well as the Qualifications Framework for the IT industry in Hong Kong, we have developed a Government IT Skills Framework (GISF) that describes the whole set of skills required by Government IT practitioners to drive service transformation and implementation of the Digital 21 Strategy. We will continue to document and adopt best practice approaches and standards of professional expertise in each of the areas of the GISF. We will also help our staff acquire domain knowledge and expertise in the relevant business, technology and industry areas.

Action plan for building an inclusive, knowledge-based society

48.   The desired outcome of the action area of building an inclusive, knowledge-based society is: *"Residents, businesses, and voluntary organisations in Hong Kong are all able to take advantage of ICT to create, access, utilise and share information and knowledge as well as for leisure and entertainment, so that they can achieve their full potential in improving their quality of life.   There is a culture of healthy and ethical use of ICT, promoted and protected by knowledgeable users and by the justice system."*

Digital Inclusion Task Force

49.   The Digital Inclusion Task Force was set up in July 2008 to advise the Government on the formulation of relevant strategies and initiatives on digital inclusion to improve access to ICT facilities and connectivity, ICT skills, and facilitate the development of useful content for the needy groups.   The Task

Force agreed that priority should be given to three needy groups, namely the elderly, low-income families with children and people with disabilities (PWD) and/or chronic illness (CI). In each group, the Task Force has reviewed existing initiatives and suggested additional actions to ensure that the needy groups have access to hardware and software, affordable Internet connections, skills and training, and content and applications that can enrich their lives.

50.　　　Existing and some recent initiatives (highlighted in bold) are shown in the following table:

Needy Group / Priorities	Low Income Families with Children	Elderly	People with Disabilities/ Chronic Illness
Internet Connectivity	School; Youth centres	District elderly community centres	SWD's Rehabilitation Service Units
	Public computer facilities; Gov*WiFi* programme; WiFi in public housing estates; **Free or Low Cost Broadband Access Plan**; **DCC**		
Computer Equipment	School; Youth centres; Computer Recycling Programme	District elderly community centres	Rehabilitation Service Units; SWD's Central Fund for PC; Assistive tools for PWD
	Public computer facilities; **Computer Recycling Programme**; **DCC**		
Knowledge and Skill	School Web Care Campaign	District elderly community centres	Rehabilitation Service Units
	Digital Solidarity Fund; e-Inclusion Campaign; District community & training centres; **DCC**		
Content and Usability	HKedCity [1]	Govt. & NGOs websites [2]	CyberAble.net [3]
	Web accessibility guidelines and common look and feel for all government websites; Web Care Award; **DCC**		

[1] The HKedCity website (www.hkedcity.net) is the largest one-stop professional educational portal in Hong Kong, incorporates information, resources, interactive communities and online services, and promotes the use of information technology in improving the effectiveness of teaching and learning.

[2] A number of government departments and NGOs are offering various online information on relevant resources and services for the elderly.

[3] The CyberAble.net (www.cyberable.net) provides people with disabilities information on rehabilitation and related support services, relevant online information and resources, job and training related information, and etc.

51.   The Task Force has also commissioned a study into ICT adoption by SMEs.   This aims to identify specific areas where Government intervention to promote ICT adoption would be justified and useful.

District Cyber Centres

52.   We have commenced the pilot scheme of District Cyber Centres (DCC) and this is scheduled for service launch in late February 2009.   We reported progress to Panel Members in January 2009.   Through providing computing facilities, Internet connectivity and technical support, the DCCs will help narrow the digital divide by enabling young people from poor families and other needy members of the community to access and use ICT and online services and helping them integrate into the information society.

53.   We will also consider initiatives to promote safe and healthy use of ICT, such as conducting community/school promotion programmes, supporting the development of digital rights management infrastructure and culture, and keeping abreast of and participating in international development on information societies (e.g. the Internet Governance Forum).

Computer recycling programme

54.   To provide needy students with access to computers, the Education Bureau (EDB) has partnered with the Environmental Protection Department (EPD) in the 2008/09 and 2009/2010 school years to launch the "Computer Recycling Programme".   Under the programme, the EPD would assist to provide refurbished computers to needy students while the EDB would arrange for one-year free Internet access service for successful applicants.   In addition, after the initial year of free service, the designated Internet Service Provider will continue to offer a favourable Internet access service plan for the beneficiaries.

Free internet broadband access plan for low income families with children

55.   The Hong Kong Council of Social Service (HKCSS) has recently partnered with a local Internet Service Provider to provide a two-year free Internet broadband access service to 1,000 students from low-income families. We will continue to explore and facilitate similar partnerships in the community to benefit more needy groups.

IT training programme for SMEs

56.   We believe the adoption of ICT by SMEs could greatly enhance their operational efficiency, competitiveness and sustainable business development.

We will launch a sector specific IT training programme for SMEs in early 2009 to help them embrace IT as a strategic tool for business and enhance their IT capabilities. We will inject $6 million to fund the programme and create some 50 temporary IT training and advisory jobs.

Way Forward

57.　　　There is a continuing need to manage the Digital 21 programme, refining the action plans to keep them up-to-date and to ensure that they meet the evolving needs of the community. Our next goal is to develop KPIs for the SDOs. With Members' comments on the proposal, we will solicit input from other stakeholders. While the Government plays an important enabling and facilitating role, to achieve the desired outcomes would require the active participation of the entire community, including the ICT industry, academia and the general public. In the meantime, we will continue to implement the initiatives included in the Digital 21 Strategy. Over time, we will use the SDOs and KPIs to guide the implementation of the programme taking into account changes in the environment, results achieved and any gaps or changes in priorities for resource allocation identified.

Advice Sought

58.　　　Members are invited to comment on the content of this paper.

Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
February 2009

**Statements of Desired Outcomes
of the Five Action Areas under the 2008 Digital 21 Strategy**

Facilitating a Digital Economy:

Hong Kong has the standards, 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.

Promoting advanced technology and innovation:

Hong Kong is a leading Asia-Pacific location for research and innovation – both in technology and in developing innovative business models. We attract talent and investment locally, regionally and globally and maximise the benefits of collaboration with mainland research and development efforts. Open competition gives market participants the incentive to invest in advanced information and communications technology (ICT) to meet market needs.

Developing Hong Kong as a Hub for Technological Cooperation and Trade:

Business establishments located in Hong Kong play a significant role in the local, global and Mainland markets for ICT and digital content services. Innovative ICT-enabled business models are used to compete globally in many other areas. Collaboration with international and Mainland entities is a major factor in successfully serving a variety of export markets as well as Mainland and local customers.

Enabling the Next Generation of Public Services:

The Government provides people with the services they need, in an efficient, convenient manner, which is as pleasurable and straightforward

as dealing with the most customer-friendly organizations in the commercial and voluntary sectors. Government policy priorities such as healthcare reform are enabled by appropriate and world-leading use of ICT. The internal efficiency of Government approaches that of the most efficient commercial organizations. Transparency and public engagement are enhanced through leveraging ICT.

Building an Inclusive, Knowledge-based Society:

Residents, businesses, and voluntary organisations in Hong Kong are all able to take advantage of ICT to create, access, utilise and share information and knowledge as well as for leisure and entertainment, so that they can achieve their full potential in improving their quality of life. There is a culture of healthy and ethical use of ICT, promoted and protected by knowledgeable users and by the justice system.

ICT Indicators under the 2008 Digital 21 Strategy

Indicator	Latest figure available in Dec 2008	Latest figure available in Dec 2007
Mobile phone penetration rate	163.0% (Oct 2008)	143.4% (Sep 2007)
Household PC and broadband penetration rates (Note 1)		
▪ Household PC penetration rate (Note 2)	74.6% (Jul to Sep 2008)	74.2% (Jul to Sep 2007)
▪ Household broadband penetration rate	77.4% (Oct 2008)	75.4% (Sep 2007)
Percentage of citizens aged 15 or above who have conducted e-business on the Internet (Note 2)	98.0% (Jul to Sep 2008)	98.2% (Jul to Sep 2007)
PC and Internet penetration rates for businesses of different sizes (Note 3)	(May to Sep 2008)	(May to Aug 2007)
▪ Large establishments	99.1%	99.1%
▪ Medium establishments	91.7%	88.3%
▪ Small establishments	58.4%	59.8%
▪ Total	63.1%	63.8%
Percentage of establishments which have undertaken transactions through electronic means (Note 3)	59.5% (May to Sep 2008)	59.3% (May to Aug 2007)
Number of wireless hotspots installed by the Government and the private sector	7,905 (18 Dec 2008)	5,288 (Nov 2007)
Equipped external telecommunications capacity	3,061,484 Mbps (Sep 2008)	1,612,189 Mbps (Jun 2007)
Government ICT spending (Note 4)	$5.5 billion (2008/09 estimate)	$5.4 billion (2007/08 estimate)
ICT investment in the business sector (Note 5)	$30.8 billion (2006)	$26.7 billion (2005)

Indicator	Latest figure available in Dec 2008	Latest figure available in Dec 2007
R&D expenditure (Note 6)	$11.9 billion (0.81% of GDP) (2006)	$10.9 billion (0.79% of GDP) (2005)
Number of e-government services (Note 7)	More than 1,240 (Apr 2008)	About 1,200 (2007)
Percentage of government forms available through the Internet (Note 7)	About 98% (Apr 2008)	About 98% (Dec 2007)
Percentage of government services amenable to electronic mode of service delivery that have an e-option (Note 7)	About 87% (Apr 2008)	About 87% (Dec 2007)
Percentage of citizens aged 10 or above who have used online government services (Note 2)	39.1% (Jul to Sep 2008)	37.6% (Jul to Sep 2007)
Level of satisfaction of citizens who have used online government services	(2007)	(2006)
■ Very good	4.2%	3.2%
■ Good	61.2%	53.9%
■ Average	32.7%	40.9%
■ Poor	1.7%	1.9%
■ Very poor	0.2%	0.1%
Number of visitors to GovHK (Note 8)	Around 21,000 daily visits (Dec 2008)	Around 22,000 daily visits (Dec 2007)
Number of online e-government transactions (Note 7)	About 3.6 million per month on average (Apr to Dec 2007)	About 3.6 million per month on average (Apr to Dec 2007)
Size of ICT workforce (Note 5)	84,685 (2006)	75,345 (2005)
Digital inclusion index for different disadvantaged groups (Note 9)	(2005)	(2005)
■ Elderly	0.27	0.27
■ Persons with disabilities and/or chronic illness	0.35	0.35

Indicator	Latest figure available in Dec 2008	Latest figure available in Dec 2007
■ Female homemakers (aged 35-59 with level of education at/below primary six)	0.37	0.37
■ Single parents	0.45	0.45
■ New arrivals	0.61	0.61
■ Children of low-income families	0.63	0.63

Notes

1. The figure "Household PC penetration rate" is extracted from the thematic household survey on information technology usage and penetration conducted by the Census and Statistics Department (C&SD) for the period from Jul to Sep 2008 while the figure "Household broadband penetration rate" is extracted from the Key Telecommunications Statistics published by the Office of the Telecommunications Authority on its website for Oct 2008. The differences in sources and timings of the figures may explain why the "Household broadband penetration rate" is higher than the "Household PC penetration rate".

2. The latest figures are extracted from "Thematic Household Survey Report No. 37 - Information Technology Usage and Penetration" published by C&SD in Dec 2008.

3. The latest figures are extracted from "Report on 2008 Annual Survey on Information Technology Usage and Penetration in the Business Sector" published by the C&SD in Dec 2008.

4. The 2008/09 actual spending and 2009/10 estimates will be available in Jul 2009.

5. This latest figure is extracted from the 2008 Edition of the "Hong Kong as an Information Society" published by the C&SD in Dec 2008.

6. The latest figure is extracted from the "Hong Kong Monthly Digest of Statistics Feature Article - Statistics on Research and Development of Hong Kong, 2002-2006" published by the C&SD in May 2008.

7. Based on the experience of the last exercise conducted in 2008, another

round of e-government development survey is under planning.

8. The current Web Statistics System only gives the number of visits instead of the number of visitors.   A visitor may have many visits; and each visit is a session of activities on a website.   If a visitor is idle longer than the idle-time limit (30 min. for the current Web Statistics System), the system assumes the visit was voluntarily terminated.   If the visitor continues to browse the website after 30 minutes, a new visit is counted.

9. Another study is currently being conducted to measure the latest digital inclusiveness of the sub-groups by means of a Comprehensive Digital Inclusion Index.   It is expected that the study will be completed by early 2009.