

# **Savantas Policy Institute's Comments on Draft 2007 Digital 21 Strategy**

## **General**

The draft 2007 Digital 21 (D21) is supposed to be an update and follow-up on the Digital 21 Strategy first published by the Government in 1998. Compared to the previous documents, it is lacking in specific deliverables. In the absence of specific goals and targets, statements such as “developing Hong Kong into a leading digital city” have a hollow ring. Many parts of the documents smack of being merely a chronicle of past achievements and a round-up of on-going work done independently by various parts of the government, such as the ICT component of the R&D centers established under the rubric of stimulating technology and innovation. As such it is more descriptive than forward-looking and lacking in a unified vision. The document strikes the right note in emphasizing convergence, digital inclusiveness, promotion of education in ICT, knowledge creation and support for SMEs etc., but without concrete proposals the document is short on actual deliverables. For example, the document fails to put forward specific proposals to address Hong Kong's ageing ICT infrastructure and the lack of specific plans to develop WiMAX. The general lack of free, broadband wireless Internet access at important public facilities in Hong Kong, such as the airport and public libraries, does not support Hong Kong's claim to be a “world digital city”. In fact, Hong Kong is seriously lagging other major Asian cities (Taipei and Singapore) in the drive to build leading edge WiMAX infrastructure.

## **Specific**

1. D21 rightly recognizes the central role played by ICT in government and in business. As Hong Kong is a predominantly service-oriented economy, ICT underlies many important sectors of our economy. ICT as the core competence of Hong Kong cannot be over-emphasized. Yet, D21 fails to convince its readers of the existence of an effective and knowledgeable ICT focus and commitment at the highest level of government.
2. D21 does not show any budget earmarked for the funding of ICT-related R&D programs in government, universities and industry. That such funding is fragmented and dispersed over several program areas is understood. But in view of the supreme importance of R&D funding

to progress, the absence of any mention of specific funding provisions runs counter to international practice and is disturbing.

3. More specifically, D21 does not set out a plan which supports ICT R&D at universities, such as which universities to fund, how much and what specific program goals etc. This is doubtless due to the lack of a high-level unified focus on ICT. As university research and collaboration with industry is vital to the creation of new knowledge and new commercialization possibilities, such omission is a deficiency.
4. On WiMAX, it is understood that there is a separate on-going consultation exercise on the licensing framework on the deployment of broadband wireless access, but several points need to be mentioned. First, in view of the importance of building broadband wireless infrastructure to the future of ICT development, the lack of specific commitment on this front is disappointing. As mentioned earlier, Hong Kong lags behind many leading Asian and American cities in making progress on this front. It is fully accepted that there are “political” and licensing problems to be resolved. Hong Kong’s major telecom companies have not yet recouped their investments in 3G and are understandably reluctant to go for WiMAX, which is in some sense a “disruptive” technology. Also, there could be resistance from telecoms which provide broadband for business or residential users. They may argue that a wireless network would compete against them unfairly. The government could counter-argue that a free wireless network is to be established only for public areas such as airports, public libraries and certain streets, as the government’s focus is to provide a wireless infrastructure to stimulate novel applications and businesses. There is also an important difference between developing applications for cellular networks such as 3G and for the Internet. For the former an individual or a start-up needs to secure agreements from telecoms to distribute applications while for the latter one can just publish applications and millions of users can access them easily. The former is a closed system while the latter is an open one. It is precisely the openness of the Internet which causes the Internet to flourish and this is what the government should bring to the wireless world.
5. Para. 5.9.3 describes a Digital Rights Management (DRM) Infrastructure supported by the Industry and Technology Fund. Unfortunately there are no details about the performance of the Infrastructure, e.g. the number of users and the volume of digital content protected etc. Neither does the relevant website provide any details. Is the lack of quantifiable results due to a lack of efforts by government to measure performance?
6. On the establishment of a single communications authority and the merging of the Telecommunications Ordinance, Broadcasting

Ordinance and Broadcasting Authority Ordinance into a comprehensive communications bill, this is part of a worldwide trend. For example, the UK and Australia have recently merged telecommunications and broadcasting authorities into a unified regulatory body. Moreover in the US, the Federal Telecommunications Commission, established by the Telecommunications Act of 1934, was put in charge of regulating interstate and international communications by radio, television, wire, satellite and cable. The 1934 Act had been replaced by the Telecommunications Act of 1996, which now allows any communication business to compete in any market against any other. This may be viewed as a positive move promoting competition, innovation and investment and upholding the freedom of speech guaranteed under Article 27 of the Basic Law and the relevant provisions of the Bill of Rights. But this is another example of an initiative under a related program area put forward as though it is a specific D21 initiative.

7. Regarding the study on an On-board Trucker Information System (OBTIS), the idea of a cross-boundary e-service platform to improve the efficiency of the logistics sector is a good one. The CITB may wish to note that the private sector has already made a head-start in providing such service. As already reported in the press, MyCard Ltd., a company established by HK entrepreneurs with offices in both Hong Kong and Shenzhen, has succeeded in constructing a cross-boundary e-service platform specializing in wireless industrial applications by integrating wireless (General Packet Radio Service) and Global Positioning System/Mobile Positioning System technologies. This company is now helping firms to track the movements of over 1000 cross-boundary trucks and achieving substantial cost savings.
8. D21 lacks clarity or specificity in many areas where actual future plans are mentioned. For example, how SMEs are to be helped is unclear. How is the core competence of SMEs in ICT to be developed? What role does the government intend to play in this? Another example is the project to develop RFID for better control [of food] at the source. It is unclear how RFID, being an external tool, can be used to track the food production chain to provide better control at the source. On the subject of promoting the use of RFID, the government can show more leadership in asking its Transport Department to take the lead in using RFID to track traffic flows.
9. On the reference to Hong Kong-Mainland synergy in intellectual property rights (IPR) protection on p. 28, this seems to allude to the fact that most of the IPR protection, even though derived from R&D in China, will be sought in Hong Kong whereby the products or

processes will be covered by the patents registered in Hong Kong and under the applicable Hong Kong patent laws. However, major concerns remain regarding its execution, as patent law is territorial, making enforcement of IPR on the Mainland uncertain, especially when only invoking IPRs registered in Hong Kong. This deserves further examination and discussion in D21.

10. IPR servicing at the Science Park. The establishment of the IP Service Center at the Science Park is interesting, but it is not clear whether the Center services only IPRs related to semiconductor and IC design only. This needs to be clarified.
11. An important related issue is copyright protection in the digital environment. Copyright protection in this context deviates from the traditional regime, giving rise to interesting yet important issues. Copyright law, when it was first adopted, targets what we conventionally understand to be copying, such as making duplication of hard copies and distributing them. However, as we move into a digital world, the concept of copying and distributing copyrighted materials becomes much harder to quantify. For example, when we “copy and paste” copyrighted materials on our computer, we have already infringed on somebody’s right. The same idea applies to e-mailing/transferring/forwarding the same to others. In this context, we tend to be less aware and less willing to equate such actions with the more traditional form of copyright infringement, whereby physical duplicate copies are made and given out. Consequently, new copyright laws need to be drafted to address this phenomenon. The US has taken major steps to address these issues when it passed the Digital Millennium Copyright Act in 1998, which criminalizes production and dissemination of technology whose primary purpose is to circumvent measures taken to protect copyright, not merely infringement of copyright itself, and increases the penalties for copyright infringement on the Internet.
12. The Unsolicited Electronic Messages Bill will likely come into conflict with the freedom of speech guaranteed under Article 27 of the Basic Law, the extent of which will depend on the precise language of the bill being drafted and ultimately passed. As of now, the bill seems to be tailored to cover only commercial electronic messages which are malicious. The opt-out regime of the bill further diminishes its effectiveness to stop spam.
13. Promotion of knowledge-based society. Even though promoting a culture that respects and protects IPRs is imperative to the promotion of a successful knowledge-based economy, enabling data/content sharing while protecting privacy is a difficult line to draw. Many businesses embrace trade secrets as their business model and would be

reluctant to readily disclose data/content, such as client information, that is so vital to their competitive edge and business survival. This is most serious in situations where disclosure provides the business with minimal benefits, e.g. in the form of patent, because the public would not otherwise have obtained the information but for the disclosure. On the contrary, this model would work wonders in situations where the public would easily obtain the information, such as by reverse engineering. In those situations, content sharing in the form of patent would offer attractive incentives.

14. On promotion of ICT literacy in education, no specifics are available as to how ICT-related contents can be built into education curriculum. By comparison, in 2002-03, the US Academy of Engineering, realizing the importance of developing technology literacy in schools, developed such a curriculum for US K-grade 12 schools. The CITB should take the lead in developing similar curriculum.