

POLICY ADDRESS PROPOSAL 02/03

INFORMATION TECHNOLOGY

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Legislative Councillor
(Information Technology)

November 2002



PROLOGUE

This is my fifth Policy Address proposal.

The present economic situation is difficult to many local enterprise, and IT businesses are no exception. Many IT companies are striving for survival by scaling back operations significantly whereas employees are worrying about possible layoffs resulting from the gloomy prospect of IT industry.

Many industry members, including myself, have been urgently looking for ways in reviving the market and improving employment prospects. We all understand that it will take time for our economy to recover but obviously, at this time of economic downturn, the Government has the responsibility to help relieve the hardships faced by the community.

Firstly, the government should increase the IT expenditure at all government level.

The Financial Secretary recently demanded all directors of bureaux to cut operating expenditure of government departments in the coming fiscal year for 1.8%, and a further reduction of 1% in each of the following three financial years.

My worry is that the government departments will make a corresponding reduction of IT-related expenditure so as to comply with the Financial Secretary's request. This will not be a wise move. Not only will business opportunities of IT enterprises be hampered, it will also aggravate unemployment situation of our industry.

Under the existing mechanism of public finances, IT expenditure is not included in the recurrent expenditure, but rather, a part of the capital expenditure which its extent of growth will not exacerbate the current fiscal deficits. To ensure the further development of e-government in which facilitates the efficiency and effectiveness of public services, the government needs to increase IT expenditure at all government level. I believe that this is a win-win initiative for both the government and IT sector.

Secondly, the government should not involve in IT-related business activities that may be construed as in competition with private sector.

Hong Kong Productivity Council(HKPC), as a government-subsidized body, has long been criticized as competing with IT sector by its direct participation in IT market. Instead of operating profit-making services subject to competition in private sector, HKPC should reposition its role, withdraw from the market and focus on services aimed at improving productivity of local enterprises.

Thirdly, the government should enhance competitiveness of local enterprises..

Hong Kong relies on external business opportunities. However, we are at a comparative disadvantage as our costs are much higher than those of our neighboring economies. The government therefore should by all means push towards a greater use of IT and e-commerce in all industries and proactively forge strategic business network with other economies. I believe this will help our local enterprises to improve their competitiveness and ability to find new business partner in the global market, open up more job opportunities to our people and in turn put us back on the course towards economic revival in long run.

Therefore, I urge the government seriously consider the proposals made therein. I will submit this proposal to the Chief Executive, Mr. Tung Chee Hwa on November 29, 2002.

You are also welcome to express your opinions on this proposal via email (cksin@sinchungkai.org.hk) or at 25093211.

Sin Chung Kai

Legislative Councillor

(Information Technology)

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A. BUSINESS SUCCESS LEADS RECOVERY

Competitive price is one of the key elements for business success. During the economic downturn, as our costs are much higher than those of our neighboring economies, local enterprises have experienced heavy financial pressure to sustain their business. To do so, they are either to exercise effective cost control through pay cuts and layoffs, or to scale down operation so as to stabilize the price.

To address the problem in the long run, however, enterprises need to enhance productivity and capability and, to develop quality services and products in order to open up new business opportunities in the global market. When local enterprises are able to expand their new market, we are already on the track of economic recovery.

IT is a critical enabler for economic revival. Local enterprises need to make use of the full potential of IT to enhance their productivity and capability. Not only will companies reduce costs, the new medium of electronic business also facilitates them to reach new business partners in a global economy.

Last year, I was aware of the problem of “digital divide” in Hong Kong. We found that many businesses or individuals who were able to make good use of IT became more successful and competitive than those who failed to do so. While the receptiveness of IT has gradually improved in household sector, the usage of technology in business community remains at a lower level.

To help local enterprises, especially SMES ride on the IT superhighway, our Government should formulate pragmatic policies and measures to encourage the penetration of IT and e-commerce in all sectors of economy, helping them re-engineer themselves and gain even more when the market picks up.

1.1 Increase IT Expenditure

Aim

- Promote e-government at a lower cost
- Alleviate the unemployment in IT sector

BACKGROUND

- The Financial Secretary requested government departments to reduce recurrent expenditure for 1.8% in financial year 03-04 and 1% per year in the consecutive two fiscal years due to deficit of recurrent expenditure. Information Technology expenditure may be a target item.
- As implementation of e-government programme brings us financial saving for \$2 billion a year¹, in which most of the savings are recurrent expenditures, the government should speed up e-government programme by increasing IT expenditure.
- As the government is the bigger user in IT sector, increase in government IT expenditure provides new business opportunities for the IT sector and thus alleviate the unemployment in the sector.

RECOMMENDATION

1.1.1 Increase IT expenditure

- Only half civil servants are allocated with computers. E-government can be better promoted if all civil servants require to use IT are allocated with computers.
- Speed up e-government projects.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, ITSD

¹ \$600 million realisable savings and \$1,400 million national savings per year.
<http://www.legco.gov.hk/yr01-02/english/panels/itb/papers/itb0708cb1-2172-3e.pdf>

1.2 Re-position the role of Hong Kong Productivity Council Aim

- Hong Kong Productivity Council (HKPC) to withdraw from services, particularly those which are subject to private sector competition

BACKGROUND

- HKPC is a statutory body to promote productivity in Hong Kong's business sectors.
- While one third of operation cost of HKPC is supported by the government subvention, the rest is financed by income generated from its wide range of profit-making services, including IT services which are commonly available in the private sector.
- According to the Consultancy Report that aimed to review the role, operation and management of HKPC, it was concluded that as a subvented organization, HKPC's involvement in IT sector has been a cause of concern on unfair competition.²

RECOMMENDATION

1.2.1 Re-define HKPC's future service focus

- HKPC's service focus and role should not involve in services that may be construed as in competition with the private sector.

1.2.2 Adopt a transparent funding model

- As HKPC is currently given a block subvention with great flexibility in its deployment, the government should implement a new funding scheme, which HKPC will be subject to greater financial accountability and programme control.

1.2.3 Assist IT-based SMEs to improve service and production

- HKPC should include IT-based SMEs as one of their service targets in a way to enhance the quality and productivity of IT industry.

1.2.4 Enhance communication between HKPC and IT Sector

- The government should appoint representatives from local IT sector into the Board of Directors of HKPC to reflect industry's views.
- HKPC should establish proper communication channels with the IT sector. Representatives from both parties should meet regularly to review the market trend and IT services of HKPC to avoid competition with the private sector.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, Innovation and Technology Commission, HKPC

² <http://www.legco.gov.hk/yr01-02/english/panels/ci/papers/ci0408cb1-1403-e.pdf>

1.3 Enhance promotion channels for IT-based SMEs

AIM

- Assist IT-based SMEs to promote and access potential customers

BACKGROUND

- It is not easy for IT-based SMEs whose resources and size are limited to accurately master market information and promote their services efficiently.
- HKPC should provide services to connect IT-based SMEs and potential customers, such as local SMEs to minimize their cost in searching for business partners.

1.3.1 Offer trade-matching services to IT-based SMEs.

- Key features of this service include:
 - Conducting market research to understand local SMEs' needs on IT products and services as well as their difficulties in mastering IT.
 - Initiating partnerships with IT services providers to develop a range of standardized service plans. The service should be open to all interested vendors in IT industry.
 - Assisting local SMEs to search for the right IT vendors by providing them information of standardized service plans.
 - Conducting regular customer satisfaction studies to collect feedback from those SMEs who have successfully reached a business deal with participating IT vendors. Findings of these studies should be publicized for other SMEs' reference.

1.3.2 Publish Solution Catalogue of IT industry

- The Solution Catalogue of IT industry is a convenient promotion channel to assist IT-based SMEs to reach potential customers (non-IT-based SMEs) by compiling a comprehensive database of IT companies in Hong Kong.
 - The Catalogue should include companies' corporate profile and contact points as well as information about their services and products.
 - Any IT-based companies place their information in the Catalogue are subject to a nominal service charges. The Catalogue will be sold to local enterprises at a cost price.
- ** HKPC may refer to the Official Guide to Telecommunications in Hong Kong published by the Internet & Telecom Association of Hong Kong³.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- HKPC

3 Internet & Telecom Association of Hong Kong, <http://www.itahk.org.hk>

1.4 Explore global business opportunities

AIM

- Create overseas business opportunities for local companies by improving business networking and market intelligence services

BACKGROUND

- Hong Kong is a small, open and export-oriented economy. Exporting our services to overseas markets is vital to local companies' survival as well as to our economy. IT sector makes no exception.
- The 42 Overseas Branch Offices and Consultant Offices⁴ of the Trade Development Council (TDC)⁵ and the 11 Economic and Trade Offices⁶ under Commerce and Industry Bureau are the focal points to promote and attract overseas investment to Hong Kong. These offices should play a more proactive role in providing trade-matching services to make it easier for local enterprises to find the right business opportunities in the worldwide market.

RECOMMENDATION

1.4.1 Improve existing trade-matching services rendered by overseas trade office

- The overseas trade offices should proactively identify potential business opportunities, such as tender exercise offered by overseas government.
- Based on the tender's requirements, the overseas trade offices should search for potential local enterprises and make initial contacts as well as provide further information and networking services to the interested companies.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Overseas Consultant Offices of the Trade Development Council (TDC), overseas offices of Hong Kong Economic and Trade Offices

4 <http://www.tdctrade.com/about/offices.htm>

5 <http://www.tdctrade.com/>

6 <http://www.info.gov.hk/cib/ehtml/uselink.html>

1.5 Strengthen the Competitiveness of IT-based SMEs

AIM

- Assist IT-based SMEs to enhance competitiveness by adopting internationally recognized standards

BACKGROUND

- Internationally recognized management standard, such as ISO 9000 or Capability Maturity Model (CMM) which are commonly adopted by many international software houses, records a low penetration rate in local IT community.
- The Government has established Hong Kong Quality Assurance Agency (HKQAA), a non-profit-making organization to distribute the “ISO 9000 Certification Scheme for Small Firms”⁷ for providing small companies “a framework for establishing, documenting and maintaining an effective quality management system”.
- Internationally recognized standard will help overseas potential customers, business partners and local SMEs identify quality IT services providers/software houses and at the same time strengthen the capability of our industry. To improve our competitive edges, we need to encourage local IT companies to adopt such system.

RECOMMENDATION

1.5.1 Promote the adoption of internationally recognized standards

- Organize promotion campaigns for IT companies, in particular inviting those well-established and export-oriented enterprises to be the early adopter. Their practical and successful experience will then serve as an impetus to encouraging broader adoption of such scheme in the entire IT community.
- The government should provide funding to facilitate IT professional bodies to promote the adoption of ISO 9001 or CMM in IT companies/software houses.
- HKQAA should take a proactive role to promote “ISO 9000 Certificate Scheme for Small Firms” to IT-based SMEs. Apart from this scheme, HKQAA should also launch “CMM Scheme for Small Firms” for software house.
- The Government should also encourage software house to adopt CMM level 2 by providing funding support (e.g. a grant bearing 50% of the total cost).

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- HKQAA, HKPC

⁷ <http://www.hkqaa.org/certschemeframe.html>

1.6 Review the Innovation & Technology Fund (ITF)

AIM

- Make the vetting criteria and assessment procedure of the Innovation & Technology Fund (ITF) open and transparent

BACKGROUND

- ITF⁸ was a statutory fund “to support projects that contribute to innovation and technology upgrading in local industry, as well as those contribute to the upgrading and development of the local industry.”
- Since its establishment in 1999, the ITF has supported 320 projects amounting to \$526 million under its four programmes.
- In March 2002, the Government has published a review on the operation of ITF.⁹

RECOMMENDATION

1.6.1 Enhance the transparency of solicitation arrangement of the Fund

- Framework Programme (FP) of the European Commission¹⁰ is the main instrument for providing research funding in Europe.
- FP initiates “Calls for expression of interest” to invite views and ideas from science and industrial communities on emerging technologies or services.
- ITF may adopt similar approach to collect views from local academics and industrial communities on new technology for determining the scope of solicitation themes.
- The improved solicitation arrangement will enable local enterprises to have better understanding on assessment requirements of each application.

1.6.2 Disclose the vetting criteria of the Fund

- At present, the vetting criteria of the ITF are not publicly disclosed.
- To make the vetting procedures transparent and open, the ITF should disclose the vetting criteria so as to increase the applications for the Fund.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, ITC

8 <http://www.info.gov.hk/itc/eng/funding/itf.shtml>

9 <http://www.legco.gov.hk/yr01-02/english/panels/ci/papers/ci0311cb1-1232-3e.pdf>

10 http://europa.eu.int/comm/research/fp6/index_en.html

1.7 Formulate New IT Strategy

AIM

- Formulate new IT Strategy to guide Hong Kong's IT development

BACKGROUND

- Initiatives arising from the 1998 Digital 21¹¹ Strategy are mostly completed in 2002.
- The government should develop new IT blueprint for Hong Kong, like the e-Korea Vision 2006¹², to spearhead initiatives that would facilitate the IT development of over the next few years, making Hong Kong become the "leader but not follower in the Information Age"¹³.

RECOMMENDATION

1.7.1 Publish new IT Strategy to leverage IT for the competitiveness of our economy.

- Key strategic areas include:
 - Strengthening the productivity and competitiveness of IT sector
 - Promoting export of local IT products and services
 - Promoting fair competition
 - Encouraging the technological and innovative upgrading of IT products and services
 - Encouraging the adoption of IT and e-commerce
 - Promoting e-government
 - Protecting intellectual property
 - Nurturing IT-savvy population

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB

11 <http://www.info.gov.hk/itbb/english/new/digital21.pdf>

12 e-Korea Vision 2002, The Third Master Plan for Informatization Promotion (2002-2006), Ministry of Information and Communication, Republic of Korea, April 2002

13 Policy Address, Chief Executive, HKSAR, July 1997, <http://www.policyaddress.gov.hk/pa97/english/patext.htm>

1.8 Establish Open Lab for IT-based SMEs

AIM

- Foster a R&D culture in IT-based SMEs

BACKGROUND

- Owing to the reasons of high investment cost and, risky and longer term to yield returns, there is a weak R&D culture of developing IT product and service in most of our IT-based SMEs.
- Ericsson set up a “Open lab” that aims to encourage product development by sharing their facilities to technology-based companies.¹⁴
- The government should implement similar initiatives to lower the risk and capital investment in product and service development, promoting the R&D culture in IT industry.

RECOMMENDATION

1.8.1 Establish a OpenLab in the Cyberport

- The OpenLab project is to establish a conducive environment by providing IT-based SMEs shared research facilities/equipment as well as hardware and software that are developed by major proprietary vendors, for developing their new IT product and service.
- Under this project, not only will IT-based SMEs access advanced technology applications at a lower cost, they also reduce their investment risk in developing new technology at the same time.
- The hardware and software of the OpenLab are either financed/provided by private donation from major proprietary vendors or government’s funding.
- The Cyberport management should support the OpenLab by providing venue and seed money for the OpenLab’s infrastructure.
- As the OpenLab is expected to run on a self-financing basis, users have to pay at a reasonable price for using OpenLab’s services.
- To explore the feasibility of this project, the government may target at one potential industry in the pilot phase. The government should evaluate the implementation of the project. If the response is positive, the project should then be expanded to other high-value-added industries.
- The project should aim at high-added-value industries, such as interactive gaming industry, digital entertainment, IC Design and so on. ,

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- ITC, Trade & Industry Department, Cyberport, Hong Kong Science and Technology Park

¹⁴ Mobile world of Ericsson in China which is established by combining Open Labs in China, <http://mobilityworld.ericsson.com.cn/>

1.9 Cluster effect in Cyberport

AIM

- Cultivate cluster effect in Cyberport

BACKGROUND

- Cyberport¹⁵ is a flagship project to enhance local IT development.
- A strategic cluster of IT professional bodies and associations at the Cyberport will create an environment conducive to the further development of IT industry.

RECOMMENDATION

1.9.1 Provide IT organizations with office space at the Cyberport

- The cluster of IT professional bodies and associations in Cyberport certainly benefits to the professional development of local IT industry.
- However, because of limited funding and other financial considerations, renting an office at the Cyberport would be unaffordable for most of these non-profit-making organizations.
- The Cyberport management is suggested to provide office space to interested IT professional organizations at a lower rent with a range of supporting facilities, including shared conference room, mini-lecture theatres and so on.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Cyberport Management

2.1 Promote IT adoption in SMEs by reviewing the SME funding schemes

AIM

- Enhance efficiency and productivity of SMEs by the use of IT
- Provide SMEs with adequate financial assistance to adopt IT

BACKGROUND

- Low IT adoption in SMEs weakens the competitiveness of our economy.
- High penetration of IT in SMEs helps the development of e-government.
- Only 30% of local SMEs have access to the Internet.¹⁶
- Established in 2001, the SME Funding Schemes¹⁷, which include SME Business installations and Equipment Loan Guarantee Scheme, SME Export Marketing Fund, SME Training Fund and SME Development Fund, aim at providing financial assistance to local SMEs.

RECOMMENDATION

2.1.1 Review existing SME Funding schemes to maintain the competitive edge of SMEs

- The government should :
 - Explore the needs of SMEs
 - Revise the scheme according to SMEs' need
 - Encourage the adoption of IT to enhance SMEs' efficiency and productivity.

2.1.2 Earmark funding for SME IT awareness program

- The SME IT awareness program could include introductory programs of doing e-business, or enhancing IT skills of employees in SMEs how to use IT in business.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Trade and Industry Department

¹⁶ Report on 2001 Annual Survey on Information Technology Usage and Penetration in the Business Sector.

¹⁷ <http://www.smefund.tid.gov.hk>

2.2 Establish a e-Business Portal Local Enterprises

AIM

- Establish a portal for helping local enterprises start e-business

BACKGROUND

- Local business sector is not enthusiastic in doing e-Business. Only 30 % of local companies are connecting to the Internet.
- Connecting to the Internet is the first step for a company to enjoy the benefits of e-Business. However, nearly 80% of those companies have no access to the Internet are of the view that there is “no business benefit to have Internet connection”¹⁸.
- Some overseas countries, like Australia¹⁹ and United Kingdom²⁰, have already established some informative portals guiding the business sector to adopt e-Business. However, there is no similar website in Hong Kong

RECOMMENDATION

2.3.1 Establish a portal for helping local enterprises start e-business

- The portal should:
 - Have a user-friendly, event-oriented interface
 - Contain legal information in related to setting up e-business in Hong Kong
 - Partner with the Electronic Service Delivery (ESD)²¹ to provide one-stop shop for the application of required licenses.
- The portal may be operated under the Virtual SME Information Centre²² as a separate section.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, ITSD

18 “Report on 2001 Annual Survey on Information Technology Usage and Penetration in Business Sector”, Census and Statistics Department

19 <http://www.noie.gov.au/>, National Office for the Information Economy (NOIE)

20 <http://www.ukonlineforbusiness.gov.uk/>, UK Online for Business

21 <http://www.esd.gov.hk>

22 <http://www.sme.gcn.gov.hk/smeop/english/index.cfm>

2.3 Introduce “IT Trainee Program” to SMEs

AIM

- Offer internship training to students studying IT-related program.
- Help SMEs understand the benefits of using IT

BACKGROUND

- There are three main reasons for SMEs not to use PCs and Internet²³:
 - No business benefit to install PCs/ have Internet connection,
 - Lack of personnel familiar with using PC/ Internet,
 - High procurement and maintenance cost of PC equipment
- Provide IT personnel to SMEs may enhance their awareness of the benefit of using IT.

RECOMMENDATION

2.3.1 Introduce “IT Trainee Program” to SMEs

- The government could encourage universities, colleges and IT associations to jointly co-ordinate this program where
 - A practical training course will be offered as an elective in IT-related program.
 - Students will be allocated to participating SMEs. They will be responsible for drafting business plan to help SMEs deploy IT.
- The programme is a win-win for both students and companies involved - allowing the youths to gain job experience while assisting SMEs to understand the benefits of IT to their business.
- The Government may make reference to the Commission of the European Communities issued a policy paper - Helping SMEs to “Go Digital”²⁴ in 2001 for the recommendation on “SMEs Trainee Programme”²⁵.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- EMB, CITB

23 Report on 2001 Annual Survey on Information Technology Usage and Penetration in the Business Sector, Census and Statistics Department

24 <http://www.pcmg.si/eic/e-business/sdokumenti%5CGoDigital.pdf>

25 http://europa.eu.int/information_society/topics/ebusiness/godigital/ict/index_en.htm

2.4 Assign a government department to promote e-Commerce

AIM

- Demonstrate government's commitment to promote e-Commerce
- Assign a department to oversee and coordinate the promotion of e-commerce.

BACKGROUND

- The promotion of e-commerce spans across the policy areas of different government departments
- At present, there is no department responsible for promoting e-commerce.

RECOMMENDATION

2.4.1 Assign a department to promote e-Commerce

- Formulate policies to promote the use of IT in business sector
- Direct available funds, such as SME funds, to support relevant policies.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, ITSD, HKPC, TDC

B. MAINTAINING OUR COMPETITIVE EDGE IN TELECOMMUNICATIONS MARKET

Our competitive telecommunications market has produced substantial benefits: low price and high penetration. However, maintaining a world-class infrastructure at low price is not sustainable in the long run. We have to make choice between a world-class infrastructure at a reasonable price, or an outdated infrastructure at a below-cost price. As telecommunication infrastructure becomes a necessity in business operation, I urge the government review telecommunications policy from time to time to ensure private owned networks are maintained in good condition.

Besides, interconnection of infrastructure between Hong Kong and China brings us business opportunities. We should strengthen this connection by all means since China will be the greatest market in the world.

3.1 Strengthen telecommunication infrastructure connecting Hong Kong and China

AIM

- Improve telecommunication communication between Hong Kong and China.
- Strengthen our competitive edges as the Internet hub in Asia.

BACKGROUND

- Hong Kong, being the closest city to China enjoying free flow of information, has the greatest potential to be the Internet hub in Asia.
- However, due to infrastructural constraint, substantial Internet traffic from Hong Kong must route through the United States to reach the mainland. This lowers the efficiency and hampers our position as the Internet hub in Asia.
- The Hong Kong Internet Exchange (HKIX) is the local internet exchange where all local ISPs connect to the International Internet Backbone via the HKIX.
- Hong Kong, with excellent telecommunication infrastructure, is of great advantage to be the Asian Internet Exchange (AIX). All the ISPs and Internet traffic in Asia shall connect to Hong Kong before routing to other countries.

RECOMMENDATION

3.1.1 Strengthen the Internet infrastructure connection between Hong Kong and the Mainland

- The government should establish direct telecommunication infrastructure between Hong Kong and China.

3.1.2 Promote Internet peering

- To encourage local ISPs to peer with that in Mainland China, the government should initiate official dialogues with the mainland government on this matter.

3.1.3 Establish AIX in Cyberport

- The Cyberport is the flagship IT project in Hong Kong, which is the best place to connect all the ISPs in Asia.
- The government could initiate dialogue with other countries to promote the establishment of the AIX in Hong Kong by encouraging their International carriers to connect to Cyberport.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB

3.2 Promote constructive competition in telecommunication market

AIM

- Promote constructive competition in local telecommunication market

BACKGROUND

- The local telecommunication market is competitive.
- However, telecommunication infrastructure requires regular upgrade and maintenance to deliver sound services. The government should establish competitive environment where operators are encouraged to make more capital investment on the infrastructure.

RECOMMENDATION

3.2.1 Review telecommunication policy

- The OFTA should review existing telecommunication policy to avoid any potential case of destructive competition. The telecommunication policy should be pro-investment-based, driving the operators to upgrade the infrastructure on regular basis.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- OFTA

3.3 Establish IPv6 testing platform

AIM

- Strengthen the competitiveness of local Information Infrastructure

BACKGROUND

- Shortage of IP address is a globally unresolved problem.
- IPv6(Internet Protocol version 6) is a next generation of IP prototype. IPv6 not only helps to increase more addressing space and but also involve its capacity to act as a catalyst for introducing wireless technologies and peer to peer applications.
- Mainland China and Taiwan have already established INTERNET-6²⁶ and Internet Protocol v6 Forum Taiwan²⁷ respectively. The aim of INTERNET-6 is “to experiment and develop next generation internet technologies including protocols, advanced features, network applications, and China specific internet applications”. In Taiwan, the IPv6 Forum Taiwan was established by the IPv6 Steering Committee²⁸ under the National Information and Communication Initiative, aimed at “(furthering) the development of IPv6 technology in the island”.
- Transferring to IPv6 will help to upgrade local information infrastructure.

RECOMMENDATION

3.4.1 Establish IPv6 testing platform

- Government agencies, like OFTA, ASTRI should cooperate with IT industry and academic to set up IPv6 testing platform.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Applied Science and Technology Research Institute

²⁶ <http://www.ipv6.com.cn>

²⁷ <http://www.ipv6.org.tw>

²⁸ http://www.ipv6.org.tw/taiwan_ipv6_updates.html

4.1 Promote information security in business sector

AIM

- Enhance information security level of local companies

BACKGROUND

- As our economy is more reliant upon IT, information security management has already become a critical part of in our society.
- At present, there are two major internationally recognized security management standards, i.e. the Information Security Management Standard (ISMS)²⁹ and the ISO 17799³⁰.

RECOMMENDATION

4.1.1 Promote information security management in business sector

- Hong Kong Quality Assurance Agency (HKQAA)³¹ should work with IT organizations to :
 - Perform study on ISMS and ISO 17799 and recommend an international recognized security standard that is suitable for business applications of various industries in Hong Kong
 - Promote the benefits of adopting information security management
 - Introduce information security management schemes that best suit to the needs of small companies
- The government should enhance its security level by adopting world-class and comprehensive information security management strategy

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, HKQAA

29 <http://www.c-cure.org/welcome.htm>

30 <http://www.iso-17799-security-world.co.uk/>

31 <http://www.hkqaa.org/>

4.2 Promote information security in the community

AIM

- Enhance the public's information security awareness

BACKGROUND

- Lack of information security knowledge, expertise, and guidance are the common problems facing many computer users and SMEs that typically do not devote necessary resources securing their IT facilities.

RECOMMENDATION

4.2.1 Promote information security in the community

- The government should work with the industry, such as PCs dealer or Internet services providers to provide IT security awareness courses to new computer/IT system users.
- The government should provide the public more information about the computer-related crime.
 - The Computer Emergence Response Team (CERT)³², for instance, may organize free security awareness seminars and provide the Chinese version of Internet security handbook³³ to the public.
 - The Crime Prevention Bureau of the Police should utilize its website to provide the public information and tips to prevent computer crime.
 - The Police should also make use of the Police Report to promote the awareness of computer crime.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- ITSD, CERT, Hong Kong Police Force

³² <http://www.hongkongcert.org/>

³³ <http://www.hongkongcert.org/ish/internet.secur.v2.pdf>

4.3 Strengthen IT competence of front-line police officers

AIM

- Combat computer-related crime efficiently

BACKGROUND

- The number of computer crimes in the first 8 months in 2002 is 190, equal to 81% of total technology crimes last year.³⁴
- To deal with the increasing computer-related crime, the Hong Kong Police Force should strengthen the IT knowledge and expertise of front-line police officers.

RECOMMENDATION

4.3.1 Establish computer-crime unit in SELECTED police stations

- The Technology Crime Division of the Commercial Crime Bureau should set up a computer-crime unit in SELECTED police stations, for instance, those in business areas where companies heavily rely on information systems in business operations, to handle all matters relating to computer-related crime.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Hong Kong Police Force

³⁴ Hong Kong Economic Journal, October 22, 2002

C. CULTIVATE OUR HUMAN CAPITAL

An IT-savvy population is an important asset of our economy. In the past years, we have initiated a range of measures to promote the use of IT in our community. With the concerted efforts from the Government, private sector and the community groups, IT literacy of our population has gradually improved. To respond to the challenges of information-based economy in the future, continuing attention focused on upgrading our IT literacy is essential.

1. IT Education

On the education front, adopting IT in school is the most effective means to enhance the IT capabilities of our next generation. The government should continue to provide adequate funding for schools undertaking innovative projects to develop IT in education.

2. Our workforce

On the manpower front, the government should revise existing strategy on lifelong education by giving importance to vocational training in IT area. The Continuing Education Fund and Skill Upgrade Scheme, where both currently do not cover IT profession or IT-related training, should be extended to enhance IT capability of our workforce.

3. Bridging the digital divide

The technology disparity between information-haves and information-have-nots is a great obstacle for us to becoming a world-class digital city. As the digital divide in Hong Kong still remains, the government has to continue its effort to tackle this problem. I suggest the government to further its initiatives by adopting coherent policies and an objective measure to analyze how this problem is affecting to our society.

5.1 Continue to support IT in Education

AIM

- Ensure schools have sufficient funding to promote IT education

BACKGROUND

- The five-year strategy of IT Education³⁵ nears its end.
- Under this strategy, the government has invested a one-off \$3 billion in capital spending and \$556 million recurrent expenditure on IT education. To continue supporting IT in education, new funding for the procurement and upgrading of IT equipment and application software is required.

RECOMMENDATION

5.1.1 Provide financial support to promote IT in Education

- The government should continue to earmark adequate resources to promote IT in education even after the first five-year scheme to be ended in year 2002/03.
- Additional funding is required on the following areas:
 - Upgrading hardware and software
 - Employing IT coordinators to coordinate and promote IT applications in schools
 - Organising IT educational programme to promote the use of IT in teaching and learning

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Education and Manpower Bureau

35 Information Technology for Quality Education - Five year Strategy 1998/99 to 2002/03, EMB, Nov, 1998

5.2 Overhaul Education Television Service

AIM

- Provide education materials to schools in an interactive way

BACKGROUND

- Education Television Service is criticized to be old-fashioned and costly³⁶.
- In order to catch-up with the Information Age, education materials should be interactive and suitable for dissemination on the Internet.

RECOMMENDATION

5.2.2 Develop “Recommended Educational Software/ Service List”

- The Education Department should
 - Replace ETV by multimedia and interactive education materials, like education software and use of education portal.
 - Re-allocate existing resources to the operation of ETV service³⁷ for the procurement of software/ service
 - Develop “A Recommended Educational Software/ Service List” for schools
 - Set out selection requirements for software/ services to be included in the List

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- EMB

³⁶ Report No. 37, Audit Commissioners, <http://www.info.gov.hk/aud/english/e37ch08.pdf>

³⁷ about \$81 million per year

6.1 Upgrade IT skills of existing workforce

AIM

- Encourage employees to upgrade IT skills on a continuous basis to cater for the speedy technological development in the new information-based society.

BACKGROUND

- Continuing Education Fund (CEF)³⁸ was established to subsidize adults with learning aspirations to pursue continuing education and training.
- Eligible applicants will be reimbursed 80% of their fees, subject to a maximum of HK\$10,000, on successful completion of approved courses or modules forming part of the course. IT training course, however, is not included in this scheme.

RECOMMENDATION

6.1.1 Include IT as a reimbursable category under CEF

- IT is a unique discipline, which requires continued training throughout one's career. The government should encourage our workforce to acquire and continuously upgrade their IT skills by including IT as one of the reimbursable category under CEF.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, EMB

³⁸ <http://www.info.gov.hk/sfaa/cef/index.htm>

6.2 Extend Skill Upgrade Scheme for IT practitioners

AIM

- Encourage IT practitioners to acquire new skills

BACKGROUND

- IT practitioners have to upgrade their skills to cater with the rapid technological changes.

RECOMMENDATION

6.2.1 Extend the “Skill Upgrade Scheme”³⁹ for IT practitioners

- The Skill Upgrade Scheme was established to “provide continuous learning opportunities for in-service employees” in 11 industries, except IT.
- The government should review the scheme by
 - Setting up an industry advisory committee to collect IT industry’s views on the future skills needs
 - Outsourcing the courses to local IT private training services providers and professional bodies.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- CITB, EMB

³⁹ http://www.info.gov.hk/emb/eng/contedu/skill_upgrade_scheme/index.html

7.1 Formulate coherent policies on Digital Divide

AIM

- Eliminate the digital divide by clear and coherent policies.

BACKGROUND

- Information and Communication Technologies (ICTs) is becoming an integral part of our lives. But not everyone in Hong Kong is information-literate, and not everyone has easy access to PCs or other means of logging on to the Internet. As ICTs become pervasive in our society, it is important that we work to eliminate the digital divide.

RECOMMENDATION

7.1.1 Review the digital divide initiatives.

- The government should commission a research to review the effectiveness of existing initiatives on bridging digital divide in Hong Kong and thereby formulate a more comprehensive strategy.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- ITSD, Home Affairs Department, Social Welfare Department

7.2 Benchmark the Digital Divide

AIM

- Benchmark magnitude of the digital divide against world-wide standards

BACKGROUND

- An objective measure of digital divide can provide us useful information about magnitude of the problem and by these data, we can carefully evaluate existing strategy and devise new measures to tackle the problem.

RECOMMENDATION

7.2.1 Establish a Digital Divide Index

- As a comprehensive indicator of the use of ICTs, the index should record:
 - The penetration of different types of ICTs, for example, mobile services, e-commerce, computer, Internet and so on.
 - The diffusion of ICTs among disadvantaged groups, for example, the low-income families, elderly, people with disability, women and new immigrants.
- The Government may make reference to the following digital divide index :
 - Tobias Husing/ Hannes Selhofer/ Werner B. Korte submitted in IST Conference in December, 2001⁴⁰
 - Orbicom-CIDA Digital Divide Index Project⁴¹

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- ITSD, Census and Statistics Department

40 http://www.sibis-eu.org/sibis/files/DigDiv_Dusseldorf_01.pdf

41 <http://www.orbicom.uqam.ca/projects/ddi2002/ddi2002.pdf>

7.3 Assist the Disadvantaged Group to use IT

AIM

- Assist the disadvantaged group to access IT

BACKGROUND

- Computer facilities are expensive for many disadvantaged groups.
- We can recycle used computers and peripherals and donated them to the disadvantaged groups.
- Established in 1997, Compuaid⁴² was a non-profit making organization helping people to access computer-related technology.

RECOMMENDATION

7.3.1 Establish PC clearing house and promote PC Recycling Scheme

- The government should provide office space at a lower rent for NGOs, like Compuaid, to run PC clearing house.
- The government should also take the lead to donate used computers which are surplus to Government departments to the computer recycling programmes run by the social services agencies.

7.3.2 Allocate additional funding to the disadvantaged group for the purchase of ICT equipment and services.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Housing Department, CITB, Welfare Department.

⁴² <http://www.compuaid.org/>

D. “E”MPOWER THE GOVERNMENT

Adopting IT in government has myriad advantages. The government can use e-business solutions to modernize internal operations, enhance productivity and hence better use of limited resources. The Government can also move away from convention approach of service delivery. By providing a more customer-oriented and user-friendly Government services, citizens will enjoy quality services on an “anywhere and anytime” basis.

At present, over 80% of existing government services are available at the Electronic Services Delivery (ESD) scheme although the usage of some services is not encouraging.

To boost the usage of online public services, the government may change some conventional approach of service delivery. The Government, for instance, may enhance the Community Cyber Points at District Office to facilitate people with limited IT skills to understand the benefits of e-government. Convenient locations of District Offices and assistance offered in the centers are of great advantages in attracting the public to use this service.

8.1 Establish e-government service centers

AIM

- Encourage the public to use e-government services

BACKGROUND

- The Electronic Service Delivery (ESD)⁴³ Scheme was launched in December 2000. Although about 80% of existing government services is available at ESD scheme, the usage of some of them is not encouraging.
- The government should enhance the existing public enquiry service centers to help citizens familiarize with e-government services.

Recommendation

8.1.1 Establish e-government service centers

- The government may combine the Community Cyber Points and the Public Enquiry Service Centres in District Offices of the Home Affairs Department⁴⁴ to:
 - Provide the public with IT facilities to access e-government services.
 - Assist the public to use e-government services by providing trained “e-government ambassadors” on the spot.
 - Consolidate problems the public encountered when using e-government services and reflect to ESD and concerned departments.
 - Organize free-of-charge training to teach the public to use e-government services.
- The plan aims at:
 - Providing the public one-stop service centers to access ALL government services through ESD scheme, similar to the Citizen’s Easy Link 1823.
 - Educating the public to use online government services and cultivating their habit to do so.
 - Evaluating the ESD scheme from the perspective of the general public, especially those possess with limited IT skills.
 - Enhancing government services through deployment of limited resources. The government may consider closing down some of the public service counters with the successful implementation of e-government services.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- Home Affairs Department, ITSD, CITB

⁴³ <http://www.esd.gov.hk>

⁴⁴ Run by Home Affairs Department

8.2 Provide e-Bill option

AIM

- Provide citizens a better way to settle government bills
- Reduce government expenditure

BACKGROUND

- At present, government sends bill and receipts to customers concerning government fee and charges by mail, incurring substantive administration cost.

RECOMMENDATION

8.2.1 Provide e-bill option to customers

- By extending government bills and receipts to customers through email, customers may choose to receive bills notice through email if they use autopay service.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- The Treasury

8.3 Promote electronic public services by deploying new technology

AIM

- Increase internal efficiency of e-government by adopting the emerging technology

BACKGROUND

- The ratio of PCs to civil servants is 1 to 2. The government should provide computers to all civil servants require using IT in their duties in order to accelerate the development of e-government. As this may involve enormous resources for the purchase of PCs, peripherals, maintenance and upgrading, the government should adopt new technology and applications to minimize the cost.

RECOMMENDATION

8.3.1 Conduct study on the use of Thin Client

- Thin Client is a new networking concept similar to mainframe. Since all the data are saved in servers, it is of advantage that the acquisition and maintenance cost can be reduced as the hard drive is no longer required.

8.3.2 Conduct study on the use of Grid Computing

- Grid computing is a computing model where people can access to shared information technology resources and use it on an as-needed basis. If the government adopts it, it helps not only reduce the spending of government's future IT investment, but also drives greater efficiencies and effectiveness on the use of our current computing resources.
- The government could make reference to developer's publication - "Breathing New Life into Hong Kong - A Technology Empowered Society"⁴⁵ of IBM⁴⁶.

8.3.3 Increase the adoption of open source software

- The government should drive the adoption of open source software, such as Linux at government level so as to address the concerns about rising costs and risks from over-reliance on particular proprietary vendor.

EXECUTIVE/ADVISORY BODIES OVERSEEING THIS AREA

- ITSD

⁴⁵ <http://www-902.ibm.com/hk/techroadmap02/index.html>

⁴⁶ <http://www.ibm.com/hk/>