

Developing New Economic Pillars

Background

1. The Chief Executive announced in late 2008 that new industries which could benefit Hong Kong's economy in the medium to long term would be explored. These include the food safety and industrial product testing and certification; healthcare; research and development (R&D), production, certification and marketing of proprietary Chinese medicines; high technology; cultural and creative; environmental; and education (including tertiary education) industries¹.
2. This paper reviews the current situation of these industries and highlights existing strengths with a view to making preliminary recommendations on the development strategy for the identified new economic pillars that may benefit Hong Kong's economy in the long run.

(A) Testing and Certification

3. With the progressive setting of legal standards for harmful substances in food (e.g. preservatives, colouring matters, pesticide residues, veterinary drug residues, and other food additives) and the commencement of the law to empower the authorities to prohibit the import and supply of food and order a food recall, as well as commencement of the nutrition labelling requirements on 1 July 2010, the demand for testing services by the food trade would increase substantially. We estimate that the food trade might require some 2 000 000 tests each year when all the new food safety legislation has come into effect. Following the melamine incident last year, many food importers and suppliers have engaged private laboratories to conduct food testing before putting the food on the market shelves. We strongly encourage and support such action by the traders as it will safeguard consumers' interests and enhance confidence in the food industry in Hong Kong.
4. In addition to conducting food testing for our local food importers and suppliers, our laboratories also have the potential to provide food testing services for food traders in the Mainland when much emphasis is now placed on food safety.

¹ Full text of the Chief Executive's speech at the Hong Kong Economic Summit 2009 (Chinese only): <http://www.info.gov.hk/gia/general/200812/11/P200812110154.htm>

Facilitation and support from the Government

5. The local testing and certification industry has grown substantially since the 1980s and it enjoys a good international reputation. It has been providing a high volume of testing and inspection services for consumer products manufactured in the PRD, such as toys and children's products, electrical and electronic goods, textiles and garments upon the requests of overseas buyers. It also provides certification service for such products as well as for the relevant management systems. Many well-known certification bodies have set up their operations in Hong Kong.

6. The Hong Kong Accreditation Service (HKAS) under the Innovation and Technology Commission (ITC) is responsible for providing accreditation service to private laboratories. Private laboratories now obtain accreditation on a voluntary basis but the HKAS/ITC strongly encourages the private laboratories to obtain accreditation. Laboratory accreditation gives assurance on the correctness and reliability of results to specific tests and calibration performed by a laboratory. The specific tests a laboratory is accredited are uploaded onto ITC's website.

7. HKAS/ITC will continue to provide assistance and support to private laboratories which are interested in obtaining accreditation. An additional amount of \$1.6 million per year will be provided to HKAS/ITC to strengthen its staffing support and for promoting and enhancing its accreditation service.

8. In addition to supporting the laboratories through providing better and more efficient accreditation service through the ITC, the Government Laboratory (GL) would also assist by promoting the upgrading of private laboratories by sharing testing methods with them as well as conducting technical seminars, proficiency tests and inter-laboratory comparison studies on a more regular basis.

9. Furthermore, GL plans to outsource more of its regular food surveillance testing work to the private sector. The resources thus released will be deployed to conduct method development for new tests, to provide new testing services in support of food legislation to enhance food safety, to conduct testing work involving litigation, and to assist in contract management. As a pilot scheme, GL has already started to outsource some 22 000 food tests (including sulphur dioxide, preservatives and organo-chlorine pesticide residues) to accredited private laboratories in 2008-09. GL plans to increase the number to at least 77 000 in 2009-10 (about 50% of its regular food testing work, covering sulphur dioxide, preservatives, organo-chlorine pesticide residues and

heavy metals, etc). The outsourcing of testing work to the private sector will provide more business opportunities for the private laboratories.

Strengths

10. Hong Kong has the following advantages in developing the food safety and industrial product testing and certification industry –

- (a) A robust accreditation system² is already in place to meet the needs of the enterprises;
- (b) The local industry has a high internal reputation and its services are accepted globally; and
- (c) Hong Kong is well positioned to act as an independent third party to provide quality certification and product testing services for Mainland enterprises to boost the confidence of overseas and local buyers.

Market potential

11. Hong Kong, as an international trade, finance and business centre situated strategically at the door of the huge and rapidly growing Mainland market, has potential to develop into a major product testing and certification centre in the region. If we could grasp this opportunity and develop food safety and industrial product certification services to meet both the local and Mainland demand, we can help not only in safeguarding consumer interests, but also in building up the Hong Kong brand, enhancing the competitiveness of local and Mainland products in the world market, and creating high-end employment opportunities for professionals and skilled-workers. However, there will be cost, time and logistics considerations for Mainland customers in using the testing services in Hong Kong. The local industry will have to compete with international brands, such as ITS, SGS and TUV which have already set up operations in many parts of the Mainland to provide service at a cost lower than the Hong Kong service providers. The prospect of this market is essentially market-driven as most of the stakeholders in the industry are private laboratories and their customers are from different industries.

² The Hong Kong Accreditation Service (HKAS) under the Innovation and Technology Commission (ITC) provides accreditation service for laboratories, certification bodies and inspection bodies through the Hong Kong Laboratory Accreditation Scheme (HOKLAS), Hong Kong Certification Body Accreditation Scheme (HKCAS) and Hong Kong Inspection Body Accreditation Scheme (HKIAS).

Way forward

12. At present, government efforts are focused on ensuring the standard of operation of certification bodies, inspection bodies and laboratories through accreditation. Testing, certification and inspection services accredited by the local accreditation body are widely recognized in overseas market. Potential development directions include the following –

- (a) Stepping up promotion to enhance local and overseas recognition of Hong Kong certification bodies;
- (b) Attracting Mainland product manufacturers and suppliers as well as overseas buyers to make use of the service provided by laboratories, certification bodies and inspection bodies in Hong Kong;
- (c) Encouraging the industry to bring in state-of-the-art techniques (including equipment, testing methods and standards) and professionals (e.g. chemists) from overseas to upgrade existing services and introduce new services in timely response to market demand;
- (d) Encouraging the industry to market their service in the Mainland and provide Mainland enterprises with comprehensive inspection, testing, certification and consultancy services, including production chain monitoring and control, risk management, legal advisory and training services, as well as traditional product testing, inspection, verification and certification services;
- (e) Focusing initially on the development of quality testing and certification services for food, with a view to extending the service in subsequent phases of development to cover such consumer products as household electrical appliances, toys and textiles, making particular reference to the requirements of the European and US markets and introducing other services when they have been developed;
- (f) In view of Hong Kong's sound and rigorous regulatory regime for Chinese medicines³ which conform with international standards, and rising demand for Chinese medicine from Europe, the US, Australia,

³ Regulatory measures relating to Chinese medicines in Hong Kong include the licensing of Chinese medicines traders and the registration of proprietary Chinese medicines. Under the system for licensing of Chinese medicines traders, all retailers and wholesalers of Chinese herbal medicines and manufacturers and wholesalers of proprietary Chinese medicines must apply for the relevant licence before they may continue operating their businesses. Under the system for registration of proprietary Chinese medicines, Chinese medicine products which are formulated in a finished dose form, and known or claimed to be used for the diagnosis, treatment, prevention or alleviation of any disease or any symptom of a disease in human beings, or for the regulation of the functional states of the human body, must be registered.

Japan, South Korea and Southeast Asian countries⁴ (details at **Appendix I**), enhancing the regulatory framework to support the development of testing and certification of proprietary Chinese medicines in Hong Kong; and

- (g) Strengthening the capability and capacity of the local accreditation body in providing accreditation service for a wider range of testing, certification and inspection service, such as accreditation service for testing of automotive parts, HACCP certification, health and safety system certification and quality tests of Chinese medicines.

13. In conclusion, because of the small size of the Hong Kong market, emphasising Mainland-Hong Kong co-operation should be the key development strategy. This is in line with the objective of upgrading the Pearl River Delta (PRD) into “a world-class base for advanced manufacturing industries”, as set out in the National Development and Reform Commission’s *Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020)* (“the Outline”)⁵.

(B) Medical Services

14. In recent years, many Asian economies have been actively promoting the development of integrated healthcare services⁶ and tapping into overseas markets. A lot of visitors from Europe, the US and Asia travel to Thailand, Singapore, India and other Asian places, combining sightseeing with medical care. This has brought substantial economic benefits to these economies (see **(a) of Appendix II**).

15. In his 2008-09 Policy Address, the Chief Executive said that the Government would explore the expansion of the healthcare industry and development of Hong Kong into a medical centre of the region and establish

⁴ In 2008, exports of Chinese medicines from the Mainland reached US\$1.3 billion. In the international market where annual Chinese medicine sales amount to some US\$16 billion, the Mainland has a market share of 3-5% only. Of the Mainland Chinese medicines sold internationally, about 15% are proprietary Chinese medicines. The remaining are health products, food or food supplements.

⁵ Produced by the National Development and Reform Commission (NDRC), December 2008.
<http://dqs.ndrc.gov.cn/qyzc/P020090116557289681356.doc> (English)
<http://dqs.ndrc.gov.cn/qyzc/P020090108574380181664.doc> (Chinese)

⁶ Thailand, Singapore, India and other places have combined healthcare with tourism, resulting in the emergence of medical tourism – a term encompassing economic activities with medical care, disease and health and rehabilitation and recuperation as their main theme, and travelling as the secondary element. Woodman (2007) points out that in 2007, three million patients crossed borders worldwide to have heart operations, plastic, reconstructive and aesthetic surgery, health checks, infertility treatment and other surgical operations.

medical centres of excellence. The size of the healthcare industry in Hong Kong is still very small⁷. Against mounting burden on the public healthcare sector, the number of beds provided by private hospitals accounts for only around 11% of the total in Hong Kong (see **(b) of Appendix II**).

16. Our healthcare system is overly reliant on the public sector and this threatens the sustainability of the provision of high quality services to our community in the long run. Our primary focus is to ensure the continued provision of high quality services to the local community in the midst of an aging population. It is our priority to increase the overall capacity of our healthcare system for the benefit of the local community. We therefore support and encourage the development of private hospitals to meet local demands.

17. The development of local medical industry requires the support of hardware and software. Capacity constraint is a major obstacle. The role of the Government is to facilitate professional development of the medical sector and to ensure that the healthcare resources available are best utilized for the benefit of the local community. Professional ethics and quality training for local medical practitioners are essential foundations if we are to improve the quality and standard of our medical services; to meet local service demands; and to enhance Hong Kong's position as a prime medical centre in the region. We are still endeavouring in these areas.

18. While we have competitive advantage in the development and provision of tertiary medical services that require the support of advanced technology and highly specialized multi-disciplinary professional inputs, we do not have competitive edges over cost.

Strengths and market potential

19. *Technical strengths* in the following areas should facilitate the development of the medical services industry in Hong Kong –

- (a) Excellent healthcare personnel and medical equipment;
- (b) Advanced medical technology;
- (c) Good communication ability;
- (d) Quality interpretation service and communications facilities; and

⁷ As at end 2008, Hong Kong had 39 public hospitals and 13 private hospitals, serving primarily the local community.

(e) Outstanding promotion and marketing skills.

20. The *Market potential* is sizeable. There are arrangements facilitating the entry of Mainlanders, thereby ensuring a stable pool of potential customers. Ageing population also means growing demand for healthcare services.

Way forward

21. The following strategic measures to industrialise the medical services and develop Hong Kong into an international medical hub may be considered –

- (a) *Developing selectively healthcare services with competitive edge*: the focus should be on the development of medical services with low risk and high return, which does not require long stay in hospital. In addition, the remote medical care or telemedicine services market⁸ should be further explored, given its rapid growth;
- (b) *Advancing the development of private hospitals*: land⁹ should be granted for the construction or extension of private hospitals. Reasonable fee structure and standards should be set for the healthcare sector. Public-private partnership should be encouraged, including pooling and hiring each other's services and sharing of resources such as equipment and support; and
- (c) *Developing medical tourism*: the development of theme resort complexes¹⁰, such as hi-tech spa, aromatherapy, water sports and outdoor activities centres, can help build Hong Kong's image as a tourist destination for both health reinforcement and leisure. A summary of some overseas examples are at **(c) of Appendix II**.

⁸ Remote medical care services provide patients with medical consultation, diagnostic and management services through the information systems. Although there is no complete statistical database to verify the markets, some data from the Juniper Research Ltd. have proven market growth at a rapid pace. The entire global remote medical care services market amounted to US\$850 million in 2006, and is expected to hit US\$3.25 billion by 2010. The compound annual growth rate during 2006-2010 is estimated to reach 39.8%. The core of such services is the patient management service provided through the information systems. The market size of this type of service alone is estimated to grow from US\$638 million in 2006 to US\$2.06 billion by 2010.

⁹ The fourth land use option with public support at the Lok Ma Chau Loop is the development of a bio-medical complex comprising facilities for surgical operations, bio-tech research, medical referral services, and integrated western and Chinese medicines under a medical tourism operation model. Other suitable locations include Wong Chuk Hang and North Lantau Island.

¹⁰ In July 2004, the Tourism Commission engaged a consultant to conduct a study on the feasibility of developing spa and resort facilities in Hong Kong, and conducted a workshop in 2005 to collect public views. Hong Kong's potential in this regard has been preliminarily affirmed but no substantive action has been taken so far.

(C) Innovation and Technology

22. The Government attaches great importance to innovation and technology development in fostering the economic development of Hong Kong. It has implemented a number of policy initiatives, including the provision of research and technological infrastructure, setting up various kinds of funding programmes (see **(a) Appendix III**), and co-operation with the Mainland to complement each other's advantages (see **(b) of Appendix III**). Hong Kong now has the sound hardware and software for applied R&D to flourish and trade of hi-tech products is also increasing over the years (see **(c) of Appendix III**). Although the awareness and the recognition on technology development is rising, we are still in an early stage in the commercialization of the R&D results. Hong Kong still lags behind places such as South Korea, Taiwan, Japan and the US in the overall investment in R&D.

Strengths

23. Hong Kong possesses some of the basic conditions for the development of hi-tech industries, including --

- (a) Universities of international standard;
- (b) A robust intellectual property protection regime and sound legal system;
- (c) An open and flexible market;
- (d) Rich entrepreneurial culture; and
- (e) State-of-art science and technology infrastructure, such as the Hong Kong Science Park, Cyberport and R&D centres, etc.

Market potential

24. In addition, Hong Kong possesses some unique advantages that would facilitate future market development. For instance, Hong Kong enterprises have a strong presence in the Pearl River Delta and they have good understanding of both the Mainland market and the world market. Furthermore, the preferential treatment under CEPA has facilitated further industry collaboration between Hong Kong and the Mainland with each contributing its unique advantages.

Way forward

25. The Government should send clear and forceful message that Hong Kong attaches much importance to innovation and technology development. This can strengthen the confidence of various sectors in supporting and investing in hi-technology and high value-added industries encourage more talent to join the industries, and change the social culture of not valuing technology R&D. Furthermore, the Government should formulate policies and measures to enhance manpower training and facilitate exchange of information and resources in the innovation and technology services sector. It should also continue to improve the technological infrastructure through the expansion of the Science Park, promote greater collaboration between the industry and R&D institutes through the R&D Centre, strengthen the cooperation with the Mainland and that with Guangdong in particular, and speed up the process of commercialisation and technology transfer.

(D) Cultural and Creative Industries

26. The Government has been promoting actively cultural and creative industries¹¹ to drive economic development and increase employment opportunities by transforming creative thinking into business opportunities. Over the past decade, such industries have brought substantial economic benefits and employment opportunities to countries all over the world (see **(a) of Appendix IV**). However, cultural and creative industries account for only 3.9% of Hong Kong's GDP¹². Figures for selected economies are at **(b) of Appendix IV**). Lately, in the wake of the financial tsunami, many people have lost their jobs. Unlike other trades, cultural and creative industries emphasize creative thinking more than capital, academic qualifications or experience. With creativity, many people could stand a chance to build a new career. Creative industries are also described as high value-added industries that are environmentally friendly and compatible with the mode of economic development for global cities.

Strengths

27. Hong Kong has the following advantages in the development of cultural and creative industries –

¹¹ As stated in the 2005 Policy Address, cultural and creative industries encompass 11 categories: design, architecture, advertising, publishing, music, film, computer software, digital entertainment, performing arts, broadcasting, and antiques and art dealing.

¹² Figure from Census and Statistics Department (2007)

- (a) A large pool of creative talent;
- (b) Blending of Eastern and Western cultures;
- (c) Biliterate and trilingual population; and
- (d) Robust intellectual property protection regime for patents, copyright, trademarks and designs.

Way forward

28. Given a common cultural background with the Mainland, Hong Kong should target the Mainland market to overcome the small size of the local market. In line with the objective of “carrying forward the excellent traditional culture of Chinese nation and the unique cultural features of Guangdong” set out in the Outline, Hong Kong should co-operate more closely with the PRD region to jointly implement the strategy of “pushing forward cultural innovation”, establish the label of “designed in Hong Kong and made in the Mainland”, and expand into overseas markets through Hong Kong’s global network and wide marketing experience.

29. Since cultural and creative industries encompass many categories, we may lose focus if we develop them all at once. Therefore, we should start with the categories with greater potential. Priority should be given to the categories in which our strengths lie, e.g. design, advertising, software and digital design¹³, digital entertainment and film and video production¹⁴. Our high technology capability can also support the development of computer animation and 3D movie production¹⁵.

30. Recently, the Government announced the establishment of a dedicated office – Create HK, to drive the development of the creative industries in Hong Kong. The preliminary development strategy covers the following seven strategic areas –

- (a) Nurturing a pool of creative talent;

¹³ Information Paper “Recent performance and development prospects of selected creative industries in Hong Kong”, Committee on Economic Development and Economic Co-operation with the Mainland, Commission on Strategic Development (June 2006).

¹⁴ The Government allocated \$100 million to establish the Film Development Fund in 1999 for a period of 5 years. In 2007, the Government further injected \$300 million into the Fund to expand its scope to provide limited funding support for small-to-medium budget film productions.

¹⁵ “Advantages in Creative Industries Manifested in the First Locally Produced 3D Movie” (“首齣港製立體影片 體現創意產業優勢”), 8 July 2008. http://ceo.hktdc.com/200807/lead/3D_20080701.htm.

- (b) Facilitating start-ups and the development of creative establishments;
- (c) Generating demand and expanding local market size for the creative industries;
- (d) Promoting creative industries on the Mainland and overseas to help explore outside markets;
- (e) Fostering a creative atmosphere within the community;
- (f) Developing creative clusters in the territory to generate synergy and facilitate exchanges; and
- (g) Promoting Hong Kong as Asia's creative capital.

The Government has also announced plans to put aside \$300 million for the CreateSmart Initiative to support the development of Hong Kong's creative economy in the coming three years.

31. As local arts community is also increasingly aware of the market potential in the Mainland, the Government encourages local artists and arts groups to expand into the Mainland market. The Government is working closely with cultural counterparts in the Mainland under various frameworks to facilitate the staging of programmes by our local performing arts groups in the Mainland. To facilitate cultural exchange and brand building, the Government has dedicated funding sources to support local artists and arts groups on outbound cultural exchange activities, including to Mainland destinations.

32. Many cultural and creative industries build on the creative works of individuals and SMEs. Most of such enterprises lack capital and have greater start-up difficulties. The Government could consider providing more funding support, such as low-interest loans and tax incentives, and relax the eligibility criteria for applying for such funding. Furthermore, the Government should play an active role in promoting local creative products overseas with a view to helping SMEs expand into overseas markets.

(E) Environmental Industry

33. Broadly speaking, environmental industry encompasses all goods and services associated with environmental protection, including impact assessment and audit, regulatory design, installation and operation of systems for compliance, waste collection, remediation and recycling, and design and

operation of environmental infrastructure. The Census and Statistics Department (CSD), however, does not have readily available information on the contribution of the environmental industry in our GDP or number of employment for the sector.

34. Over the last few decades, Hong Kong has put in place many world class environmental infrastructure, hence drawing a strong presence of consultants and contractors with international partners on application of the latest environmental technologies and management expertise. However, the size of the industry (estimated to be about 400, see **Appendix V**) is still small and mainly comprises of SMEs. Private investment in R&D is low, if not lacking. In addition, though some tend to include waste recovery and recycling industry as environmental industries, the local practitioners are mainly involved in low-value added waste recovery process for re-sale as second hand items or for recycling outside Hong Kong.

Strengths

35. Hong Kong has the following competitive advantages in the development of the environmental industry –

- (a) Local enterprises have rich experience in pollution prevention and control, in particular, project management and operation of waste infrastructure;
- (b) They are adept at commercialising environmental technologies and providing tailor-made solutions to customers;
- (c) Hong Kong has the legal framework for provision of environmental management and consultancy services; and
- (d) Proximity and ease of access to the Mainland market (see paragraphs 37-39 below).

Challenges

36. However, there are a number of challenges to overcome –

- (a) Direct financial support from the public sector, which is a norm for development of high-tech environmental industries overseas, is lacking;
- (b) R&D investment by the private sector in environmental technology is lacking;

- (c) Land is short in supply and premiums high;
- (d) Transportation and labour costs are high; and
- (e) Local market for green products is small.

37. Business opportunities for environmental technologies are nevertheless abundant in the Mainland. China's acute environmental problems stem from a deteriorating natural resource base, dense population, heavy reliance on coal, outmoded technology, underpriced water and energy, and breakneck industrial growth. In response to this situation, the Central Government has unleashed a burst of environmental legislation and decreed by 2010 that the country will reduce its total pollution discharge by 10% from the 2005 level and reduce energy consumption by 20% per GDP unit.

38. Specifically, investment in environmental infrastructure, notably municipal solid waste and sewage treatment facilities will be substantial. According to the US Department of Commerce, the Central Government plans to invest 111.5 billion RMB (USD14.9 billion) in building MSW treatment facilities, and will seek to raise treatment rate of MSW to no lower than 60% by 2010. As for hazardous waste treatment, the country will allocate 14.92 billion RMB (1.99 billion USD) to build 31 hazardous waste treatment centers, 300 centralized disposal facilities for medical waste and 31 warehouses for radioactive waste in the next three years. Under the 11th Five-Year Plan, 1,000 new waste water treatment plants (representing investment of RMB 330 billion) will be constructed.

39. In addition, according to the Ministry of Environmental Protection, as of early 2008, 39.5% of the cities in China do not meet the national standard II of air quality. Responding to this serious situation, the Mainland Government has ordained that by 2010, desulfurization devices should be installed on coal-fired boilers at power plants where medium or high sulfur coal is used. All newly built, expanded or renovated coal-fired power plants must include installation of desulfurization equipment. It is estimated that the market value of the desulfurization industry will be US\$ 725 million if only 5% of all the large-sized coal-fired power plants install desulfurization equipment.

Way forward

40. In view of the huge investment potential on environmental technologies and infrastructure in the Mainland, there will be substantial opportunities for the local environmental service providers to access the business opportunities by making use of their management experience and expertise in application and customisation of latest, world class environmental technologies. It is best to

achieve this through the recent CEPA liberalization arrangements in exploring business opportunities in Guangdong and other parts of the Mainland. In addition, under the framework of environmental cooperation set out in the Outline, the HKSARG will seek to deepen cooperation with the Guangdong authorities in respect of the wider use of renewable and cleaner energy, promoting the development of circular economy, enhancing cleaner production in the PRD region, as well as promoting the wider use of electric vehicles. These key areas of environmental cooperation will open up huge business opportunities for local environmental technology and service providers.

(F) Educational Services

41. Although developing the educational services industry may not instantly stimulate the economy and alleviate people's plight in the face of the rapidly changing economic environment, it is a long-term investment in human resources to meet the long-term development needs of the economy and society. For this reason, many developed countries around the world have been competing with each other in "exporting education", seeking to attract more non-local students (see **Appendix VI**). In Hong Kong, a number of measures were implemented in 2008 to further develop Hong Kong into a regional education hub, including –

- (a) Increasing non-local student quota for publicly-funded programmes at the sub-degree, degree and taught post-graduate levels from 10% to 20% of the approved student number targets for these programmes;
- (b) Allowing the admission of non-local students for short-term studies in Hong Kong;
- (c) Providing government scholarships to quality local and non-local students;
- (d) Relaxing employment restrictions for non-local students e.g. allowing non-local students to take up part-time on-campus jobs for up to 20 hours per week and off-campus summer jobs during the summer months;
- (e) Relaxing current immigration control so that a non-local graduate may take up employment in Hong Kong after graduation so long as the job is at a level not uncommonly taken up by degree holders and the remuneration package is at market level;

- (f) On application, granting a 12 months' stay on time limitation to non-local fresh graduates without any restriction.

Furthermore, the Government has introduced measures to support the development of local self-financing degree-awarding institutions including providing financial assistance through various schemes such as the Start-up Loan Scheme, Land Grant Scheme, Accreditation Grant Scheme and the Quality Enhancement Grant Scheme.

Strengths

42. Hong Kong has major competitive edges in attracting quality teaching staff, research fellows and non-local students. These include –

- (a) Research funding and facilities are on par with international standards;
- (b) Biliterate and trilingual environment suits the needs of students from different countries;
- (c) Internationally-recognized quality assurance mechanism and curriculum; and
- (d) Local institutions are famous for their world-class educational philosophy and management style.

Market potential

43. There is ample room for the development of education industry in Hong Kong, given the large potential demand for higher education in the PRD, helped by the same language used in both places. This is as stated in the Outline that “the prestigious universities of Hong Kong and Macao will be encouraged to establish co-operative institutes of higher education in the Pearl River Delta” and “the authority for undertaking co-operative education with overseas organizations will be expanded.”

Way forward

44. The Government may put its emphasis on –

- (a) Attracting non-local students to study in Hong Kong¹⁶; while

¹⁶ Australia is one of the countries that have successfully developed education into an industry. In 2005, Australia's total international exports of education services amounted to over HK\$36 billion, ranking sixth among all categories of exports of the country.

- (b) Encouraging graduates to stay and work in Hong Kong, thereby promoting economic development and addressing the shortage of local talent.

45. Local institutions should strengthen their co-operation with Mainland institutes in the areas of collaborated scientific research, sharing of teaching resources, course design, and teacher and student training.

46. Post-secondary education is another area for consideration to meet the diverse needs of Hong Kong in developing into a “regional education hub” –

- (a) *Developing into a center for international professional examinations:* Currently, some professional examinations are only held in overseas countries. Students, both local and those in other Asian regions, have to go abroad to sit for the examinations. In view of this, the Government may consider developing Hong Kong into a “center for international professional examinations” (e.g. finance, insurance and information technology) so that students may sit for the relevant examinations in Hong Kong and acquire the internationally recognized qualifications. At present, the Hong Kong Examinations and Assessment Authority administers various examinations on behalf of overseas examinations bodies or professional organizations. It should continue to seek further opportunities in this area. It should however be noted that the success of this initiative may hinge on the competition from other neighbouring economies; and
- (b) *Developing a wider variety of post-secondary and professional training programmes:* Relevant institutions may consider adding more specialised subjects of a non-academic nature, such as professional training courses in the hospitality and catering sector and computer game design, etc. A larger variety of programmes can nurture people specialised in different fields to meet the economy’s development needs in the longer term, and enhance students’ employability upon graduation. Furthermore, the Government may consider encouraging institutions to provide intermediate vocational and technical education and training programmes for students from the PRD region in a bid to attract them to study in Hong Kong.

Conclusion

47. Despite its impact on the local economy, the financial tsunami also brings major opportunities. We need to review our development strategy and

establish a more diverse economic base by strengthening the existing pillar industries and developing new ones that may benefit Hong Kong.

48. The Outline as well as the drafting of the National Twelfth Five-Year Plan offer opportunities for wider and closer co-operation between Guangdong, Hong Kong and Macao, which is conducive to the further integration of Hong Kong's economic strengths with those of the PRD region, and to the development of local industries with comparative advantages into "centres of excellence".

Secretariat, TFEC
31 March 2009

Appendix I: Testing and Certification

Exports of Chinese Medicine Products from Mainland China

Total Exports of Chinese Medicine Products
from Mainland China by Region (US\$ million)

Year	Asia	Europe	US	Others	Total Exports
1998	389.85 (71.9%)	32.07 (5.9%)	91.24 (16.8%)	28.72 (5.3%)	541.88
1999	345.87 (67.1%)	66.17 (12.8%)	81.37 (15.8%)	22.41 (4.3%)	515.82
2000	384.42 (69.4%)	70.47 (12.7%)	75.43 (13.6%)	23.92 (4.3%)	554.24
2001	380.31 (68.1%)	72.60 (13.0%)	77.63 (13.9%)	27.92 (5.0%)	558.46
2002	459.27 (68.5%)	82.34 (12.3%)	95.01 (14.2%)	34.33 (5.0%)	670.95
2003	-	-	-	-	720.00
2004	-	-	-	-	830.00

Source: Strategic Study on the Internationalisation of Chinese Medicine, Shang Yong and Li Daning.

Total Exports of Chinese Medicine Products from Mainland China
by Product Type (US\$ million)

Year	Proprietary Chinese medicines	Extracts from Chinese medicine	Chinese medicinal herbs	Total exports
1998	80.57 (14.9%)	99.98 (18.5%)	361.33 (66.7%)	541.88
1999	78.99 (15.3%)	104.00 (20.2%)	332.83 (64.5%)	515.82
2000	90.94 (16.4%)	114.00 (20.6%)	349.00 (63.0%)	554.24
2001	102.12 (18.3%)	102.24 (18.3%)	354.10 (63.4%)	558.46
2002	109.87 (16.4%)	171.31 (25.5%)	387.96 (57.8%)	670.95

Source: Strategic Study on the Internationalisation of Chinese Medicine, Shang Yong and Li Daning.

Appendix II:

(a) Economic benefits gained by various countries from medical tourism

Country	Economic benefits	Target
Singapore	In 2006, Singapore attracted 500,000 medical tourists, earning US\$1.5 billion in revenue.	To attract 1 million foreign patients in 2010.
Thailand	In 2007, Thailand attracted over 1.5 million foreign medical and sight-seeing tourists, bringing US\$10 billion to Thailand.	
South Korea	In 2006, 16,000 foreign patients received treatment in South Korea, which was 20 times the number of such patients (760) in 2005. South Korea's revenue from foreign patients increased from US\$59 million in 2006 to US\$61.6 million in 2007.	To attract 100,000 foreign patients in 2012.
Malaysia	The number of foreigners going to Malaysia on medical tours increased from some 70,000 in 2000 to over 100,000 in 2004, generating an equivalent of HK\$190 million in revenue.	
India	In 2005, India attracted 150,000 foreign patients and the number of such patients has been increasing by 15% annually since then. According to the latest figures released by the Federation of Indian Chambers of Commerce and Industry, the annual revenue of India from medical tourism amounts to US\$870 million.	To bring nearly US\$2 billion in revenue to India in 2012.

Sources: News reports, articles and government websites.

- (b) Numbers of beds provided by the public and private sectors in various countries/regions with percentages

Country/Region (Year)	Public sector		Private sector	
	No.	Percentage	No.	Percentage
Taiwan (2006)	44,076	33.6%	81,076	66.4%
Australia (2007)	55,904	67.63%	26,758	32.37%
Thailand (2006)	105,000	72.41%	40,000	27.59%
Singapore (2007)	8,368	72.47%	3,179	27.53%
Malaysia (2006)	38,625	76.85%	11,637	23.15%
Hong Kong (2007)	27,784	88.99%	3,438	11.01%

Sources: News reports, articles and government websites

(c) Themes and initiatives for the development of medical tourism in various countries/regions

Country/ Region	Major area	Policy/support measures
Singapore	Specialist surgery and other specialist treatment, e.g. joint replacement, coronary bypass, dental and eye surgery	<ul style="list-style-type: none"> ● A Healthcare Services Division has been established under the Tourism Board to facilitate the development of the industry, e.g. looking into issues relating to visa regulations on medical tourists. ● The Economic Development Board attracts foreign investments, while the International Enterprise Singapore promotes the overseas growth of Singapore's hospital services industry. ● Through "Singapore Medicine", the Tourism Board provides tourists seeking treatment in Singapore with information on visa arrangements, immigration procedures, accommodation, travel arrangements and trip planning. A website in 5 languages (Chinese, English, Malay, Indonesian and Arabic) has been set up specially for such tourists.
Thailand	Health checkup	<ul style="list-style-type: none"> ● From 1998, transport links with Vietnam, Laos, Burma, the Middle East and other places where medical services are inferior have been improved to facilitate visitors seeking treatment across the border; special access is provided at the airport for medical tourists. ● A service hotline and an Internet advisory system have been set up to enable foreign patients to make appointments and enquiries. Special access may be provided for individual patients to keep their treatment confidential. ● Most hospitals have a large team of interpreters providing interpretation services. Some hospitals provide interpretation in more than 10 languages.
India	Cardiac care, cosmetic surgery, joint replacement, osteoporosis treatment, eye care and dental treatment	<ul style="list-style-type: none"> ● A thematic website on medical tourism has been set up. ● Medical Tourism India has been established by the government to promote overseas brand-building of the Indian medical tourism industry, co-ordinate the development of medical tourism and standardise services. ● The government provides tax exemptions for 5

Country/ Region	Major area	Policy/support measures
		years and tax concessions for another 5 years for private hospitals; encourages foreign direct investments in medical and health care; and offers low-interest loans and lower import taxes and duties on medical equipment.
Taiwan	Five major areas of surgery: living donor liver transplant, plastic surgery, cardiovascular surgery, artificial joint replacement and in-vitro fertilization	<ul style="list-style-type: none"> ● Value-added guide service is available to take medical tourists not familiar with the hospital setting through the whole treatment process. ● Hospitals give advice to tourists on accommodation, travel and visa arrangements. Some hospitals provide air ticketing, hotel booking and shuttle service to and from the airport.
South Korea	Mainly plastic and cosmetic surgery, followed by dental care and health screening	<ul style="list-style-type: none"> ● The Immigration Act has been amended to allow foreigners seeking medical treatment in South Korea and their family members to be granted long-term stay visas for medical treatment; foreigner who can produce documentary proof that he is Korean may join the national health insurance programme. ● Tours targeting the Liaoning and Shenyang markets will be launched in late 2009, including the 5-day Medical and Sight-seeing Tour, 5-day Cosmetic Surgery and Sight-seeing Tour, and 5-day Seoul and Jeju Health Tour. ● A Healthcare Town on Jeju Island is planned to attract more foreigners to South Korea to receive treatment and go sight-seeing and shopping during their stay; a cosmetic surgery support centre will be set up in Seoul to actively attract medical tourists.
Malaysia	Health screening, herbal treatment	<ul style="list-style-type: none"> ● Ecological and agricultural tours, combining healthcare and nature, have been launched. ● To make charging more transparent and to help foreign patients estimate the costs when planning their tours, the Association of Private Hospital of Malaysia has submitted to the authorities a proposed charge schedule for medical procedures.

Sources: News reports, articles and government websites.

Appendix III: Innovation and Technology

(a) Technological Infrastructure and Funding Schemes

Organisation/Fund	Brief description
Innovation and Technology Commission (ITC)	<ul style="list-style-type: none"> ● Established on July 1, 2000, the ITC set up five R&D centres in April 2006 to promote applied R&D in five technology focus areas, namely automotive parts and accessory systems; information and communications technologies; logistics and supply chain management enabling technologies; nanotechnology and advanced materials; and textiles and clothing. ● It supports applied R&D and technology transfer and application; fosters an innovation and technology culture in the community; promotes technological entrepreneurship; provides technological infrastructure; facilitates the development of human capital to support innovation and technology; and promotes internationally accepted standards and conformity assessment services. ● It organises an annual Innovation Festival which comprises of exhibitions, seminars, DesignTech workshops, and technology competitions to arouse the interest of the general public in innovation and technology.
Steering Committee on Innovation and Technology	<ul style="list-style-type: none"> ● Established in January 2004, the Steering Committee is chaired by the Secretary for Commerce and Economic Development with members from relevant Government bureaux, academia, industry, and innovation and technology organisations. ● It coordinates the formulation and implementation of innovation and technology policy.
Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI)	<ul style="list-style-type: none"> ● Set up in January 2000, ASTRI performs relevant and high quality R&D for transfer to industry for commercialisation with a view to elevating the technology level of our industry and stimulating the growth of technology-based industry in Hong Kong. ● In April 2006, ASTRI launched the R&D Centre for Information and Communications Technologies, which focuses on four technology areas, namely, communications technologies, consumer electronics, integrated circuit design and opto-electronics. ● The number of annual technology transfers from ASTRI to the industry has grown from a total of two in 2003/04 to 50 in 2007/2008. For the period from April 2006 to May 2008, ASTRI transferred 93 technologies to the industry, of which 50

Organisation/Fund	Brief description
	were transferred during July 2007 and May 2008.
Hong Kong Science and Technology Parks Corporation (HKSTPC) and Hong Kong Science Park	<ul style="list-style-type: none"> ● The HKSTPC operates and manages the Hong Kong Science Park; three Industrial Estates at Tai Po, Yuen Long and Tseung Kwan O; and the InnoCentre at Kowloon Tong. ● The 22-hectare Hong Kong Science Park provides a conducive environment to nurture world-class clusters, through making available suitable buildings for lease to technology-based enterprises to carry out R&D work. ● Its target sectors are electronics, IT and telecommunications, biotechnology, precision engineering, and a newly-planned sector of renewable energy and environmental technology.
Cyberport	<ul style="list-style-type: none"> ● The Cyberport commenced operation in 2004, and has set up the Hong Kong Wireless Development Centre, the Digital Media Centre, the iResource Centre, the Digital Entertainment Industry Support Centre and the Digital Entertainment Incubation-cum-Training Centre to provide hardware, software, technical and marketing support for companies in the local wireless and digital entertainment industries. ● It has already attracted more than 60 IT/Information Service companies as its tenants include multinational corporations, overseas and Mainland companies as well as local small and medium enterprises (SMEs).
Hong Kong Productivity Council (HKPC)	<ul style="list-style-type: none"> ● The HKPC promotes productivity excellence of Hong Kong industry through the provision of integrated support across the value chain to enhance the industry's international competitiveness. ● Anchored to its core competence in manufacturing technology, IT, environmental technology, and management systems, HKPC has been helping Hong Kong industry in technology and process upgrading; and helping innovative industries to move up the value ladder and tap new business opportunities.
Innovation and Technology Fund (ITF)	<ul style="list-style-type: none"> ● The ITF supports projects that contribute to innovation and technology upgrading in industry, as well as those essential to the upgrading and development of industry. ● There are four programmes under the ITF: Innovation and Technology Support Programme; University-Industry Collaboration Programme; General Support Programme; and Small Entrepreneur Research Assistance Programme. ● As at the end of October 2008, a total of 3,475 applications have

Organisation/Fund	Brief description
	<p>been received requesting \$16.6 billion funding. Among them, 1,245 projects (\$3.7 billion) have been approved. Most of the funded projects were related to IT (30%); electrical and electronics (24%); and manufacturing technology (16%). The projects were mainly initiated by local universities rather than the industry.</p>
Applied Research Fund (ARF)	<ul style="list-style-type: none"> ● The ARF supports local technology ventures with commercial potential. ● As at the end of October 2008, the ARF has made 24 investments with funding of \$392 million. After a review in late 2004, it has been decided that the ARF should cease making new investments and the Applied Research Council would oversee the existing investments and their exit.

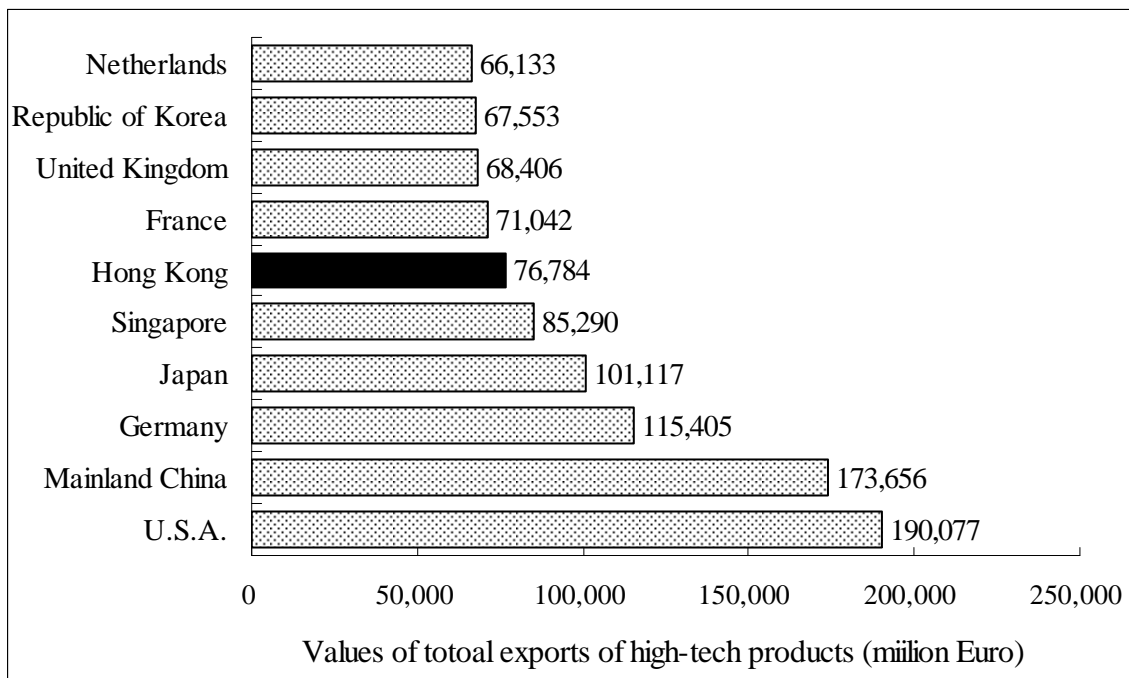
(b) Technology Co-operation between Hong Kong and the Mainland

Year	Co-operation items
2004	<p>The Ministry of Science and Technology and the Government of the Hong Kong Special Administrative Region (HKSAR) jointly established the “Mainland and Hong Kong Science and Technology Co-operation Committee” to formulate technology collaboration and exchange programmes between the Mainland and Hong Kong.</p>
2004	<p>Guangdong and Hong Kong launched the “Guangdong/Hong Kong Technology Cooperation Funding Scheme” to encourage collaboration between research institutions and industries of the two places. From 2004 to 2007, the governments of the two places supported 669 projects under the scheme with a total funding of about \$1.6 billion.</p>
2007	<p>Shenzhen and Hong Kong signed a cooperation agreement to take forward the proposal of establishing “Shenzhen/Hong Kong Innovation Circle”. The two sides have agreed to strengthen exchange and sharing of talents and resources, and encourage closer co-operation between the research institutions of both places.</p>
2008	<p>As the first major project under the “Shenzhen/Hong Kong Innovation Circle” concept, the two cities successfully invited DuPont, a US company, to set up its photovoltaic global business headquarters and R&D Centre in Hong Kong, and a manufacturing base in Shenzhen.</p>

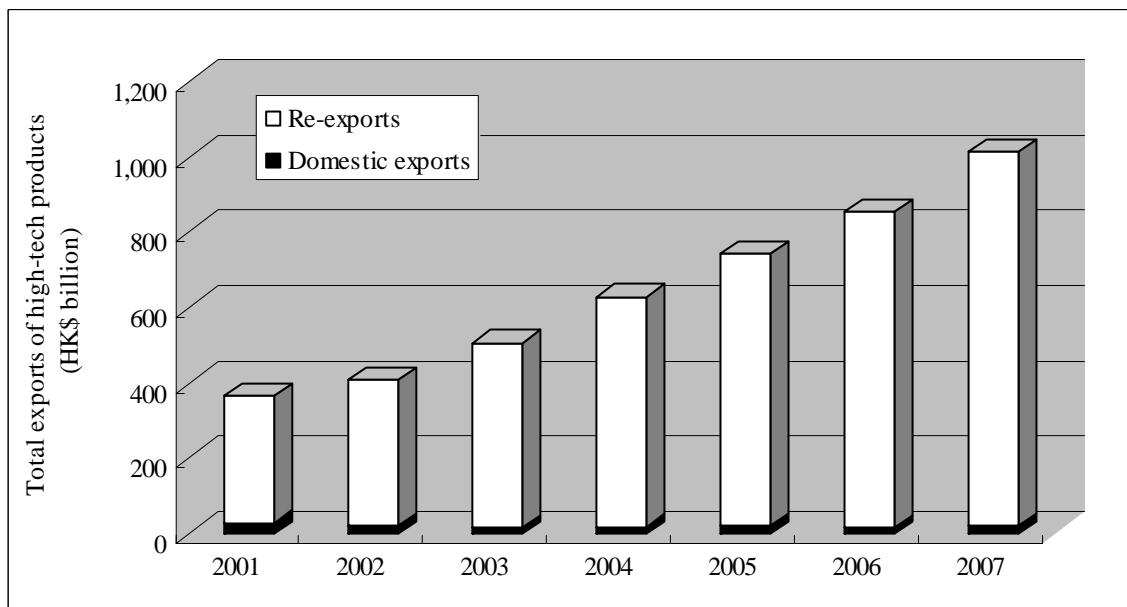
2009	<p>“The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020)” announced on 8 January emphasises enhanced co-operation between Guangdong and Hong Kong, including in the field of high-tech industries, to bring into play their respective advantages and complement each other.</p>
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(c) Trade Statistics on Hi-Tech Products

World’s Ten Leading Exporters of Hi-Tech Products in 2005

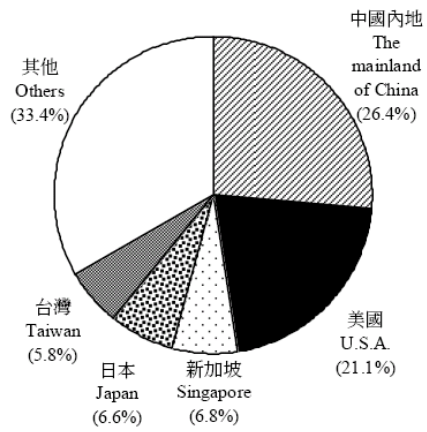


Total Exports of Hi-Tech Products

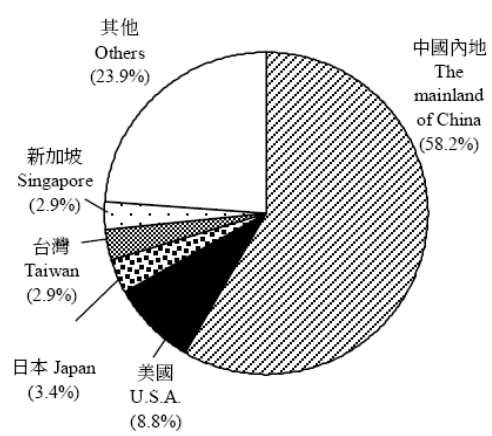


Exports of Hi-Tech Products by Major Destination

1997



2007



Values of Exports of Hi-Tech Products
by Product Category (HK\$ million)

	1997		2007	
	Domestic exports	Re-exports	Domestic exports	Re-exports
Telecommunications and sound recording and reproducing apparatus and equipment	26,813 (64%)	94,787 (48%)	15,638 (76%)	686,669 (69%)
Office machines and automatic data processing machine	8,253 (20%)	71,265 (36%)	2,504 (12%)	200,332 (20%)
Scientific instruments	4,957 (12%)	17,038 (9%)	605 (3%)	51,080 (5%)
Electrical machinery	617 (1%)	6,794 (3%)	76 (0 [#])	30,675 (3%)
Aerospace	6 (0 [#])	406 (0 [#])	1 (0 [#])	12,204 (1%)
Non-electrical machinery	510 (1%)	1,195 (1%)	1,273 (6%)	5,057 (1%)
Chemical materials and products	324 (1%)	4,191 (2%)	38 (0 [#])	4,457 (0 [#])
Medicinal and pharmaceutical products	150 (0 [#])	3,643 (2%)	415 (2%)	2,700 (0 [#])
Total	41,630 (100%)	199,320 (100%)	20,549 (100%)	993,174 (100%)

Note: 0[#] - Figures less than 0.5%

Source: Census and Statistics Department (2008) *Hong Kong Monthly Digest of Statistics: Hong Kong's external Trade in High Technology Products, 1997 to 2007*. Government Printer.

Appendix IV: Cultural and Creative Industries

(a) Development of creative industries in different parts of the world

Country	Situation	Source of information
Global	Creative industries are estimated to account for about 7% of the world's GDP and forecast to grow on average by 10% a year.	United Nations Conference on Trade and Development, " <i>Creative Industries and Development</i> ", 11th Session, Sao Paulo, 13-18 June 2004, quoting World Bank " <i>Urban Development Needs Creativity: How Creative Industries Affect Urban Areas</i> ", Development Outreach (November 2003).
UK	As the fastest growing economic sector in UK, creative industries accounted for 8% of the country's GDP in 2003, and provided jobs for 2 million people in 2004.	Department for Culture, Media and Sport, UK, Creative Industries Economic Estimates Statistical Bulletin, October 2005 (Revised Edition).
Japan	Japan has always been one of the world leaders in exporting their creative industries such as film and music, electronic games, cartoon and related products, etc.	Shehui kexue wenxian chu ban she, Report on Development of Cultural Industries in China 2001-2002 - " <i>General introduction and characteristics of Japanese cultural industries</i> " p.281
South Korea	Cultural industries in South Korea grew at an annual average of 21% from 1999 to 2002, which was three to four times faster than the global annual growth rate of about 5.2%.	Mr. Bae Jhong Shin, the Vice Minister of Culture and Tourism, Korea, Speech at Asia Cultural Cooperation Forum 2004, organised by the Home Affairs Bureau (HAB), HKSAR Government.
Singapore	Creative industries contributed to 3% of Singapore's GDP in 2002. The	Dr. Lee Boon Yang, Minister for Information, Communications and the Arts, Singapore, Speech at Asia Cultural Cooperation Forum 2004, organised by the HAB, HKSAR

	Singaporean Government has targeted to develop a creative cluster to propel the country's creative economy.	Government; Creative Industries Development Strategy prepared by the Ministry of Information, Communications and the Arts, September 2002.
Mainland	In 2002, the Report at the 16 th National Congress of the Communist Party of the People's Republic of China inscribed the development of cultural industry into a political resolution which provided a clear policy guidance for the industry.	Jiang Zemin, Report at the 16 th National Congress of the Communist Party of the People's Republic of China, 2002, Part VI.
	The value-added contribution of the creative industries in Guangdong to the country's GDP was 2.8% in 2006.	Statistics Bureau of Guangdong Province

Source: Committee on Economic Development and Economic Cooperation with the Mainland of the Commission on Strategic Development, *Promoting the Development of Creative Industries* (6 February 2006); TeamOne Economist Ltd., *Social, Economic and Political Developments in the Mainland, with Particular Emphasis on Regional Developments and the Guangdong Province, that have Implications for Hong Kong* (21 August 2008)

(b) Contribution of the Creative Industries to GDP and Employment

Country	Contribution to GDP	% of Employment
US	11.12	8.49
Singapore	5.70	5.80
Canada	4.50	5.55
Latvia	4.00	4.50
Hungary	6.67	7.10
Philippines	4.92	11.10
Bulgaria	3.42	4.31
Mexico	4.77	11.01
Lebanon	4.75	4.49
Jamaica	4.80	3.03
Russia	6.06	7.30
Romania	5.54	4.17
Croatia	4.42	4.65
Peru	3.60	2.51
Ukraine	3.47	1.91
South Korea	8.67	4.31
<i>Hong Kong*</i>	<i>3.9</i>	<i>4.9</i>

Source: Assessing the Economic Contribution of Creative Industries, World Intellectual Property Organisation, Geneva, 20 May 2008

** Hong Kong figures from Census and Statistics Department (2007)*

Appendix V: Environmental Industry

Overview of the Environmental Industry

Industry	Overview
Environmental technology and product	<p><u>Current situation</u></p> <ul style="list-style-type: none"> ● Small industry base, consisting of about 300 establishments, of which the majority (89%) are SMEs with less than 100 employees. The industry employs a total of about 26,000 persons and its major business activities focus on the local and Mainland markets, and to a lesser extent, on the markets in Southeast Asia. ● In 2001, most of the enterprises (67%) generated less than HK\$10 million in annual revenue and the total annual revenue generated by the industry was approximately 0.6% of Hong Kong's GDP. ● In the period from 1999 to 2007, the ITC approved more than 38 R&D projects to develop clean environmental technologies and processes suitable for application in Hong Kong, with the total funding amount exceeding HK\$76 million. ● In the period from 2000 to 2006, the HKPC obtained 16 patents and 3 trademarks for environmental technologies and products. ● The HKSTPC is planning on the Phase 3 extension of the Science Park, which aims at promoting renewable energy and environmental technology industry and bringing about a cluster effect.
	<p><u>Strengths</u></p> <ul style="list-style-type: none"> ● Rich knowledge and experience about the local and Mainland markets. ● Adeptness in commercialising environmental technologies for application in markets with potential. ● Adeptness in making new uses of existing technologies and providing tailor-made solutions to address the needs of different markets, especially in the areas of water saving and water pollution control, containment of air and odour pollution, waste disposal and management systems, noise control and noise attenuation equipment, energy saving equipment and systems etc.
	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ● Lack of activities in the development and consolidation of innovative environmental technologies, thus affecting competitiveness and leading to inability to cope with the rapidly advancing technologies and increasingly stringent regulatory

	requirements in various markets.
Waste recovery and recycling	<p><u>Current situation</u></p> <ul style="list-style-type: none"> ● 416 recyclers in Hong Kong, scattered over 14 berths in Kowloon, Hong Kong Island and the New Territories. ● Waste “recovered but not recycled”. Of about 2.81 million tonnes of municipal solid waste recovered in 2007, only 1% was recycled locally. The remaining 99% was exported to the Mainland and other countries for recycling. Nevertheless, the waste trade brought HK\$6 billion in profits for Hong Kong. ● Inactive and small second-hand market, which mainly deals in waste automotive parts and second-hand books, and includes used clothing donation activities organised by charitable bodies. In October 2007, the Environmental Protection Department (EPD) set up the Second-hand Exchange website. Up to early January 2009, an accumulative total of 6,336 items had been posted on the website for donation or for sale at low prices, but only around 20% (exact figure being 18.4%) of them had been successfully transacted, which were mostly housewares, furniture and electrical appliances. ● Lacklustre repair and maintenance market, which mainly consists of providers of repair and maintenance services for motor vehicles, small family operations providing repair and maintenance services for household electrical appliances and service agents for electrical appliances.
	<p><u>Strengths</u></p> <ul style="list-style-type: none"> ● The Policy Framework for the Management of Municipal Solid Waste (2005-2014), the EcoPark in Tuen Mun, the Product Eco-responsibility Ordinance and the CEPA have provided the basis for further development of the recycling industry. ● Demand for green production in the Mainland is on the rise. In particular, solutions for prevention and control of air pollution, prevention of water pollution and sewage control, as well as waste management, are on high demand. These areas are exactly the specialties of the environmental technology companies in Hong Kong . ● “Ecological economy development” and “eco-city clusters” have become the mainstream modes of regional development in the Mainland. As ecological protection and ecological environment improvement are international collaborative projects, Hong Kong has advantages in terms of free flow of international information, internationally high academic level in environmental protection and a well-developed convention and exhibition industry.

	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ● Development of recycling industry is restrained by high land premiums and land shortage, high transportation and labour costs, and vulnerability to international waste prices. ● The recovery rate remains stagnant and waste reduction is still on a voluntary basis.
Environmental Services	<ul style="list-style-type: none"> ● The Hong Kong Environmental Industry Association, set up in early 2000, aims to identify new business opportunities in environmental protection. The Association has just over 50 members. Over the past 7 years, it organised only a few activities, most of which were social gatherings for members of the industry. ● According to the data of the EPD, there are 117 environmental consultancy firms in Hong Kong, providing consultancy and environmental monitoring services for local and Mainland infrastructure and industrial pollution prevention projects. ● From time to time, the Business Environment Council, HKPC, green groups and local universities organise seminars, thematic and academic conferences and exhibitions on environmental protection or related themes.

Appendix VI : Education Services

Current situation of international education in various countries and some of their plans to expand the export of education

Singapore	Current situation	<ul style="list-style-type: none"> There are 73,000 non-local students, each incurring an annual expenditure of about HK\$250,000 in tuition fees and subsistence cost, translating into revenues of HK\$18.25 billion for the country.
	Plans to expand export of education	<ul style="list-style-type: none"> Offering a large number of additional scholarships and making continuous efforts in inviting internationally prestigious universities to co-operate with local higher education institutes in course design and academic research. Introducing the Work Holiday Programme, under which undergraduates and graduates from eight developed countries/places may apply to stay and work in Singapore for 6 months. The government subsidising 80% of tuition fees payable by non-local students on sole condition that the student shall work with a Singaporean company for 3 years after graduation.
UK	Current situation	<ul style="list-style-type: none"> There are about 300,000 non-local students, bringing some HK\$55 billion in revenue. A full tuition fee of HK\$383,000 is payable by non-local students, and a reduced fee of HK\$128,000 by UK and other European students.
	Plans to expand export of education	<ul style="list-style-type: none"> The government announced that it hopes to admit an additional 100,000 students from abroad, allowing students from the Mainland and Hong Kong to stay on to work for one year after graduation.
Australia	Current situation	<ul style="list-style-type: none"> As Australia's six biggest export in 2005, international education contributed some HK\$36 billion to the country in economic benefits.

	Plans to expand export of education	<ul style="list-style-type: none"> ● Offering more than 19,000 scholarships since 2006, amounting to some HK\$8 billion, to attract students from the Asia-Pacific region. ● Introducing the Vocational and Technical Education Awards for students pursuing a diploma or associate degree.
Malaysia	Current situation	<ul style="list-style-type: none"> ● There were 40,029 non-local students as at 2005, a figure much higher than the 3,508 in 1999.
	Plans to expand export of education	<ul style="list-style-type: none"> ● The Ministry of Education announced in 2006 its plan to develop the country into a regional education hub, with the government taking the internationalisation of higher education as an objective. Efforts will focus on the following three areas: <ul style="list-style-type: none"> - Coordinating the overseas enrollment exercises and actively exploring various target cities as potential markets; - Allowing overseas universities with the right conditions to set up off-shore campuses in Malaysia so that local students may pursue a degree locally with an overseas university at a relatively low cost, with the degree being mutually recognised by the respective governments; - For the purpose of diversification of courses, the Ministry of Higher Education encourages the establishment of private universities and higher education institutes and their fostering of strategic partnership with universities in the UK, US, Australia, Canada and Russia to develop the “3+0”, “2+2” or “3+1” curricula, so that students with different qualifications can have flexibility in terms of enrollment and modes of studies.