
Hong Kong's Innovation and Technology Role in Mainland China's 12th Five Year Plan

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Contents:

Executive Summary

1. Introduction and background
2. Objectives of China's 12th Five Year Plan
 - ✓ Many goals of the 12th Five Year Plan are related to "Knowledge"
 - ✓ "Top-down" vs "Bottom-up" approaches
3. Hong Kong's role in innovation and technology
 - ✓ Hong Kong's weaknesses
 - ✓ Hong Kong's unique strengths
 - ✓ Hong Kong and China's 12th Five Year Plan
4. What Hong Kong should try to do and to avoid
 - ✓ Things Hong Kong should try to do
 - ✓ Hong Kong should try to avoid
5. Implications of a coordinated innovation & technology policy in Hong Kong
 - ✓ Hong Kong's unique role in China's economic development
 - ✓ Perspectives from the Greater Pearl River Delta Business Council
 - ✓ Lessons from OECD and European Union
6. Proposed innovation and technology initiatives from Hong Kong
 - ✓ Innovation in Hong Kong should embrace
 - ✓ Innovation and Technology Bureau to coordinate policies and initiatives
7. Conclusion

Executive Summary

Milton Friedman described Hong Kong as a *laissez-faire* economy and he credited that policy for Hong Kong's prosperity since the end of the Second World War. Yet some local Hong Kong activists mock the "Freest Economy of the World" rating as business-government collusion that ignores a widening wealth gap, a more sustainable economic growth strategy and social justice.

Since 1997, the HKSAR Government has been learning to deal with increasingly demanding and diversified groups of stakeholders in the community. At the same time, Hong Kong is increasing its integration with Mainland China. Hong Kong has distinct advantages including: rule of law, integrity, free press, open information environment and Hong Kong's free and independent thinking capacity. As a Special Administrative Region of China, Hong Kong is treated as a separate custom territory under the "United States-Hong Kong Policy Act of 1992" and can import many U.S. technologies that have embargo on Mainland China. But how do we turn those advantages into economic opportunities? What can Hong Kong do for Mainland China in the context of the 12th Five Year Plan? How do we attract the world to use Hong Kong as gateway for further economic cooperation with China?

Objectives of China's 12th Five Year Plan

The National 12th Five Year Plan (12-5 Plan) was released as a draft document and passed on 18th October 2010 at the 5th Plenary Session of the 17th Party Congress by the Central Committee of the Chinese Communist Party. Many of the goals stated in the proposal are closely related to Innovation & Technology and Knowledge Economy. Hong Kong is still very new to this planning process and many of the discussions centered on and around Hong Kong's role as a financial centre and other commercial interests. Hong Kong also seems confused on whether the 12th Five-year Plan is directives "from above" and or if it is a national development plan seeking proposals "from below".

The 12-5 Plan stated China's economic ambition to become a truly "moderately wealthy" nation during the period of 2011-2015. To achieve this, China will continue with "Reform and Opening" and rely less on an export-oriented model for growth. More emphasis will be put on domestic consumption and sustainable development. The intention is real improvement in standard of living and real wage increases for the vast majority of the population. To achieve quality growth, planners at the

Central Government level fall back on the tradition Confucian values of “knowledge” and “education” – which translates into “*Innovation and Technology*” (as understood by national leaders) and the “*Knowledge-based Economy*” (as it is practices in the United States and Europe).

Developing the Knowledge Economy as a reciprocal win-win strategy

Hong Kong, however, is somewhat uncomfortable with becoming part of a planned economy. Hong Kong was essentially built on a foundation of “... good laws, well administered” since it came under British Rule on 29 August 1842 after the Treaty of Nanking. Hong Kong has remained a Special Administrative Region (SAR) under Chinese rule after 1997. A legal and administrative system that is separate from mainland China has remained in place. Hong Kong is a territory of China that has done most of the important things right and a territory mainland China could continue to look at when faced with confusion regarding policy choices. Hong Kong also has all essential “first-level business conditions” which enables Hong Kong to turn into a world-class innovation and technology centre and incubation and commercialization hub to service R&D outputs from Hong Kong, mainland China and from the world.

Hong Kong, however, needs a footing – a positioning and a more active role in the 12-5 Plan. Such a cooperation process of asserting Hong Kong’s “Soft Power” to facilitate trade relations between China and the West should be based on Hong Kong’s most distinct competitive advantages. It can have many names: “Innovation & Technology”, “Commercialization”, “Knowledge-based Economy” or offering Hong Kong’s “Soft Technology” to mainland China.

The Knowledge Economy idea is not new to Hong Kong. In the early 18th Century, Europeans in Hong Kong used “*advanced technology*” -- *the China Clippers*, the fastest sailing ships in the early 18th Century -- to ply trade route between China and Europe. Therefore, some argue that Hong Kong is already a Knowledge-based Economy and nothing more needs to be done. Yet, Hong Kong does not have a meaningful critical mass that would allow it to become a technology hub or to develop commercialization knowhow. University-based researchers keep using government money to invent and develop technologies and end up selling the results cheaply to mainland and international companies.

The lack of solid initiatives and ideas in Hong Kong has prompted some academics to quote John F. Kennedy's 1961 inaugural speech and remind that Hong Kong should: "... ask not what the country can do for you; ask what you can do for your country". Hong Kong must be proactive – identify and design an appropriate strategy and the supporting implementation policy and measures to make things happen. Hong Kong must also focus on its core strengths – the essential attributes and competitive differences that mainland China and the rest of the world cannot duplicate easily.

Relying solely on the "Four Pillar Industries" and "Six New Industries" need not be the only strategies for Hong Kong. A vertical sector-based industry support strategy is something Hong Kong should try to avoid. A more logical support strategy Hong Kong should adopt is the horizontal support strategy – an approach favored by the OECD and by the European Union as it does not name the "winning sectors" and exclude the "emerging" or "unforeseen" sectors which often become real winners because of market driven forces.

Discovering Hong Kong's market niche

A diplomat who is also a very well-learned scholar of contemporary Russian and Chinese history said if Gorbachev had a little piece of Hong Kong when he was trying to reform USSR through "Perestroika" and "Glasnost" in the 1980s, it would have been easier for him and he could have done a much better job. Hong Kong should not overlook the historical perspectives -- Hong Kong has made much contribution in the early 80s by providing capital and production skills to the Pearl River Delta. Now that China is rich, Hong Kong's "soft power" has become more valuable than the money Hong Kong businessmen provided in the past. And these are the ingredients China is looking for to achieve the objective of *quality growth*.

Hong Kong's role in China's 12th Five Year Plan (12-5) must include China's "Self-initiated Innovation" objectives. To find a market niche for itself, Hong Kong also need to understand and face up to its own inadequacies. Moving Hong Kong towards knowledge-based production is not a sharp break from the past -- nor is it a "sector-based" support strategy as misunderstood by some opponents. Coming up with a coordinated economic development policy and providing business facilitation to turn part of Hong Kong economy into a commercialization hub (along the lines of Silicon Valley, Boston and the Research Triangle of North Carolina) is not a big step for Hong Kong to take. Samson Tam, Hong Kong legislator for the IT Sector, suggested publicly that Hong Kong needs an "Innovation and Technology Bureau". He suggested

that the proposed Bureau "... will have the responsibility to build up links to initiatives in mainland China and the rest of the world under the "Open Innovation" theme". Hong Kong has been successful as a trading hub of goods, but Samson believes that Hong Kong also has potential to evolve into a trader of knowledge, linking R&D in universities and serving as a technology transfer and commercialization centre that serves mainland China and the world.

Opponents of "Innovation & Technology" and "Knowledge Economy" should take note that the subject is not about supporting narrowly defined "technology" or supporting narrowly defined business sectors. The concept, as it is practiced by the Danish Mindlab and many future centres in Europe, embraces "*social innovation*", "*public sector innovation*", *very broad perspectives on social and economic development, R&D and job creation and business and economic value creation across all business sectors*. NESTA¹ (National Endowment for Science, Technology and the Arts) of the UK which is the closest equivalent of the Innovation and Technology Commission (ITC) in Hong Kong, takes risk on behalf of the UK Government by investing in medium to long-term projects, informing the UK Government on innovation policy and encouraging a culture that helps innovation to flourish. The result is a UK innovation policy that embraces all innovative activities.

It was suggested that HKSAR Government could play the role of a creator of "virtuous ecology" to facilitate economic growth. Indeed, the idea of "Virtuous Ecology" has a Buddhist origin -- an "*Indra's Net*", often pictured as a light-weight "spider web" with jewels of water droplets attached: "... formless with qualities that depend on the wisdom of the observer." Such a metaphor is particularly relevant to Hong Kong's role in the National 12-5 Plan. Asserting Hong Kong's "Soft Power" and a light-weight facilitation role have no conflict with the market-driven philosophy of Hong Kong or the national development strategy (*see point 6.6 for a list of proposed facilitation measures*).

The National 12th Five Year Plan is not an order from above. It is not a static thing, but a constantly evolving set of national development objectives Hong Kong could contribute to. Hong Kong needs to take this opportunity to upgrade its own economic infrastructure – or risk becoming irrelevant to the mainland economy and other economies of the world.

¹ NESTA's (National Endowment for Science, Technology and the Arts) stated aim is to transform UK'S capacity for innovation.

1. Introduction and background

- 1.1 Milton Friedman of the “Chicago School” of economics described Hong Kong as a *laissez-faire* economy and he credited that policy for Hong Kong’s prosperity since the end of the Second World War. The Heritage Foundation, Wall Street Journal and The Fraser Institute have consistently rated Hong Kong as the freest capitalist economy in the world since 1995.
- 1.2 Yet some local Hong Kong activists mock the “Freest Economy of the World” rating as business-government collusion that ignores a widening wealth gap, a potentially more sustainable economic growth strategy and social justice. Premier Wen Jai-bao has also reminded HKSAR Chief Executive Donald Tsang to be mindful of Hong Kong’s “Deep-seated Problems” and not to ignore Hong Kong’s need for development and more economic diversity; quietly suggesting that Hong Kong should not put all eggs in the “Financial Market” basket. Even local economists such as Richard Wong Yue-chim² acknowledged that the traditional economic drivers of Hong Kong – finance, logistics, trading and services are losing steam and could not be expected to deliver the high rate of growth Hong Kong had enjoyed since the 1960s.
- 1.3 Since 1997, the HKSAR Government has been learning to deal with increasingly demanding and diversified groups of stakeholders in the community. The passage of the Constitutional Reform Package in 2010 has eased some of the political pressure on the HKSAR Government, but Hong Kong is still faced with a difficult task of creating diversified, high-valued economic activities so that high-quality job opportunities could be provided to more highly educated Post-80s and Post-90s.
- 1.4 In the same period of time since 1997, Hong Kong has been increasing its integration with Mainland China. The Task Force on Economic Challenges (TFEC) launched the “Six New Economic Pillars” in late 2008 as a response to the Financial Tsunami of 2008. Hong Kong was mentioned only briefly in the National 11th Five Year Plan (2006-2010) but following requests from National People’s Congress (NPC) Delegates from Hong Kong, economic planners at the Central Government level had pledged to involve Hong Kong more closely in the

² Richard Wong Yue-chim is the Chair of Economics of the University of Hong Kong. He serves at many HKSARG advisory committees and can be seen as a strong proponent of “Free Market Economics”.

12th Five Year Plan (2011-2015).

- 1.5 However, Hong Kong seems to have lost its policy formulation capacity since cutting off political links with the United Kingdom, a leading European country, on 1st July 1997. On the economic front, Hong Kong could not come to a community consensus, and therefore wrestled with the decision on whether to stick to the tried and trusted *lassiez-faire* free market economic development strategy practiced by Hong Kong since the late 50s, or to follow the more central economic planning approach along the lines of the “Six New Economic Pillars” and the 12th Five Year Plan.
- 1.6 In an earlier paper titled “The Knowledge-based Economy from the Perspectives of the Commerce and Economic Development Bureau”, the Asia Pacific Intellectual Capital Centre (APICC) suggested that Hong Kong should focus on high-value added knowledge-based economic activities, regardless of whether they are “Services” or “Industries”. Samson TAM Wai-ho, Hong Kong Legislator from the IT Sector suggested publicly that Hong Kong needs an “Innovation and Technology Bureau” to coordinate fragmented government policies.
- 1.7 In a conversation over lunch with Mrs. Rita FAN Hsu Lai-tai³, Mrs. Fan mentioned that Mr. Wang Guang-ya, the new director of the Hong Kong and Macau Affairs Office (HKMAO) felt that Hong Kong has advantages in “Innovation and Technology”. Those advantages were summarized over the lunch to Mrs. FAN as:
- i. A trusted legal and administrative system -- *good law, well administered*;
 - ii. *International credibility in rule of law* and potential to help resolve China’s Intellectual Property(IP) conflict with the West;
 - iii. *Hong Kong’s integrity*, for example in using other’s IP in R&D;
 - iv. Hong Kong’s free press, open information environment and Hong Kong’s *free and independent thinking capacity*;
 - v. Hong Kong’s potential to make best use of some of its unique advantages (e.g. i. to iv. above) to develop a world-class *commercialization capacity* to service innovation and R&D outputs from Hong Kong, mainland China and from the rest of the world.

³ Rita Fan is the former President of the Legislative Council of HKSAR; she is now a Standing Committee Member of the National People’s Congress of China.

- 1.8 This paper is, therefore, written in the context of:
- i. How Hong Kong could make best use of its traditional strengths as an international economy and a free and unique environment under “One Countries, Two Systems” to create the much needed economic diversity and economic opportunities for Hong Kong ;
 - ii. At the same time, this paper will also examine what Hong Kong can do for Mainland China in the context of the 12th Five Year Plan and;
 - iii. How countries and territories from around the world could use Hong Kong as a “gateway” for further economic cooperation with China in the context of the globalised and unified, high value-added Knowledge-based Economy.

2. Objectives of China’s 12th Five Year Plan

2.1 To those who are not familiar with the planning system in Mainland China, it should be noted that a proposal for the National 12th Five Year Plan was released as a draft document and passed on 18th October 2010 at the 5th Plenary Session of the 17th Party Congress by the Central Committee of the Chinese Communist Party. This proposal document contains 56 high-level goals and objectives, classified under the areas of:

- i. Economic development;
- ii. Sustaining economic growth through domestic consumption;
- iii. Modernization of agriculture and the rural economy;
- iv. Improving the core competitiveness of business and industry;
- v. More balanced development amongst the regions;
- vi. Environment, energy and sustainable development goals;
- vii. Sustaining China’s modernization through science, technology and human resource development;
- viii. Social and public service development;
- ix. Cultural development and China’s “soft power” goals;
- x. Improving public administration systems;
- xi. Continuing with opening up the Chinese economy and international Co-operation and;
- xii. The national unity goal.

Many goals of the 12th Five Year Plan are related to “Knowledge”

2.2 Many of the goals stated in the proposal (*e.g. under points i), iv), vi), vii) ix) & xi) above*) are closely related to the Innovation & Technology and Knowledge-based Economy themes of this paper. Other than restating “One Country, Two System” as a political goal, the economic goals proposed for Hong Kong are also stated under the same national unity section (point xii above) in four brief sentences:

- i. Support Hong Kong’s consolidation and advancement in its roles as international finance, trading and logistics centres;
- ii. Strengthen Hong Kong’s innovation capacity in business & industries;
- iii. Support Hong Kong’s coordinated economic and social development.
- iv. Deepen regional economic cooperation between Guangdong, Hong Kong and Macau.

2.3 From the high-level goals classified under twelve main headings, various government units at both the central and provincial levels submit their own proposal to the State Council (Central Government) and a final National 12th Five Year Plan document will eventually be drafted by the State Council in early 2011. Hong Kong is still very new to this planning process and public discussions in Hong Kong⁴ indicate that Hong Kong is still learning how to participate properly in the national five-year planning cycles. Many of the discussions centered on and around Hong Kong’s role as a financial centre⁵, Hong Kong industrialists seeking continued support from the Guangdong Government and for other commercial interests. There seems to be confusion on whether the 12th Five-year Plan is a directive “from above” and, therefore an opportunity to gain more commercial interests under those directives or if it is a document seeking national development proposals “from below”.

“Top-down” vs “Bottom-up” approaches

2.4 There has been much jockeying for more top-down policies which favor Hong Kong⁶. This is not to say there has been no useful discussion on Hong Kong’s role in the context the national 12th Five-year Plan. Both the Greater Pearl River

⁴ For example, i) “Hong Kong’s role under 12-5 Planning” conference hosted by the Bauhinia Foundation (8 December 2010) and ii) “12th Five-year Plan and Future Development of HK Conference” hosted by the Central Policy Unit of the HKSAR Government (13 December 2010).

⁵ For example, at a conference jointly hosted by the Central Policy Unit of the HKSAR Government and [China Institute of Strategy and Management](#) (中国战略与管理研究会) on 17th May 2010.

⁶ For example, SCMP article titled, “Opportunity Awaits” by Joseph C.K. Yeung, founding president of Hong Kong Industry Commerce and Professionals Association, page A13, Friday February 11, 2011.

Delta Business Council (an advisory committee of the HKSAR Government) and the Academy for Macroeconomic Research of the National Development and Reform Commission (AMR-NDRC) have produced very useful discussion on the subject. But we should take note that the name of the former “State Planning Commission” of the State Council was renamed “NDRC” in 1998 on account that China would like to -- since the ministry-level unit was renamed 12 years ago -- rely less on central planning and more on market forces from below to shape China’s social and economic development.

- 2.5 For these continuously evolving circumstances and from the perspective of seeking a more useful and constructive role for Hong Kong, Hong Kong should not write off the national 12th Five Year Plan idea as “... *nothing more than central planning*”. Hong Kong should not look at the exercise from *a pure mercantile viewpoint* and an opportunity to grab more commercial interests either.
- 2.6 No one should believe that Shanghai – or any city or province in China -- would stop developing because of successful jockeying of certain narrow economic benefits for Hong Kong from the Central Government through the 12th Five Year Plan. This paper, therefore, will take a wider social and economic development view on Hong Kong “Innovation and Technology” and “Knowledge-based Economy” development and at the same time examine what specific policy measures Hong Kong might undertake to help China’s national development objectives, and how Hong Kong might make use of this opportunity for its own economic transformation.

3. Hong Kong’s role in innovation and technology

- 3.1 As stated, economic planners at the Central Government level would support Hong Kong’s : i) consolidation and advancement in its roles as international finance, trading and logistics centres; ii) innovation capacity in business & industries; iii) coordinated economic and social development; and iv) regional economic cooperation between Guangdong, Hong Kong and Macau. For the purpose of discussion, this paper will treat these objectives as some of the desirable goals and not as unmovable directives from above.

- 3.2 At the national level, proposals for the National 12th Five Year Plan released on 18th October 2010 stated China's economic ambition to become a truly "moderately wealthy" nation during the period of 2011-2015. To achieve this, China will continue the outward-looking "Reform and Opening" policy initiated by Deng Xiao-ping while, at the same time, rely less on an export-oriented model for growth.
- 3.3 More emphasis will be put on domestic consumption and delivery of more basic education, healthcare and housing services to the vast majority of the population. More emphasis will be put on developing the poorer mostly rural provinces in the interior and in Western China. More emphasis will be put on sustainable development and less on short-term growth at huge human and environmental costs. The intentions of these high-level goals are real improvement in standard of living and real wage increases for the majority of the population.
- 3.4 To achieve these goals, the planners at the Central Government level fall back on the tradition Confucian values of "knowledge" and "education" – which translates into "*Innovation and Technology*" (as it is understood by the majority of the national leaders who were trained as engineers or scientists) and the "*Knowledge-based Economy*" (as it is practices in the United States and Europe).
- 3.5 There are many useful papers which commented on Hong Kong role in the 12th Five Year Plan⁷ from a national development perspective. Many highlighted Hong Kong as an international city and its role as a "bridge" in China's "going out" (internationalization) strategy. Hong Kong roles as an international finance centre⁸, the "dragon head" of social and economic systems, supply chain, innovation and technology and information centre in the Pearl River Delta

⁷ For example, articles by AMR-NDRC (国宏学术研究报告: 香港在国家“十二五”规划中的功能定位分析; 作者:马强; 单位:外经所) and China Reform Forum (中国改革开放论坛:十二五时期国际国内经济形势新变化对深化内地与香港合作提出新要求带来新机遇新挑战; 作者:毕吉耀国家发展和改革委员会对外经济研究所副所长; 2010年1月)

⁸ A very detailed discussion co-hosted by the Central Policy Unit (CPU) of the HKSARG and China Institute of Strategy and Management (中国战略与管理研究会) in Beijing on 17th May 2010 discussed Hong Kong's role in : i) finance and economic development, ii) administrative reform and innovation, iii) sustainable development, industry upgrade and change in development strategy and iv) International role, regional cooperation, soft power and medium and long-term strategy. Only Raymond Chien, Chairman of the MTR Corporation mentioned Intellectual Capital and the possibility of Hong Kong cooperating with mainland China in the area of Innovation and Technology.

Region were also acknowledged. In most of these meeting, Hong Kong was able to contribute abundant information in the areas where Hong Kong has been extremely successful at -- as a finance centre and a trading centre. But there were few contributions on the other attributes which are unique to Hong Kong -- rule of law, international outlook, Hong Kong's administrative systems, civil society and soft power and Hong Kong's potentials in assisting China's "Reform and Opening" in the medium and long-term.

Hong Kong's weaknesses

- 3.6 Hong Kong is a matured economic entity which almost happened by accident under British rule. The Hong Kong establishment (the Civil Service included), is basically conservative and is not eager to change. Hong Kong rose to a prominent position in Asia as one of the "Four Asian Tiger" in the 70s, following several rounds of rapid economic growth after the Second World War. In the post-war years running up to 1997, Hong Kong was basically run by highly experienced British administrators who are still connected to the United Kingdom. Facing difficult social and economic issues, the expatriate administrators often contacted their friends in the UK or asked for information from corresponding UK government departments informally. Through these channels, proven public policy measures implemented in the UK were able to find their way into Hong Kong, usually around four or five years after they were launched and proven in the UK.
- 3.7 These communication channels could have continued or even extended to include other successful experience from around the world. Hong Kong uses English as its business language and has no communication barrier with much of the developed world which also uses English. Mr. Tung Chee-hwa, the first Chief Executive of Hong Kong did exactly that by enlisting Chinese American Prof. Tien Chang-lin, someone from outside the traditional policy formulation channels, to become the chairman of Hong Kong's Commission on Innovation and Technology. The output and outcome of the Commission were the Hong Kong Science and Technology Park (HKSTP) and many of Hong Kong's current capacity in "Innovation and Technology".
- 3.8 However many in Hong Kong do not understand or take an interest or acknowledge the merits of developing Hong Kong into a high value-added "Knowledge-based Economy" and how Hong Kong could play such a role in the

context of China's economic development. There are still strong voices in Hong Kong that advocate that Hong Kong should stick to the trusted "*laissez-faire*" policy, believing that there should be no government intervention in business and economic affairs.

- 3.9 Whether *laissez-faire* still has a role in Hong Kong's future development is not a black-and-white argument. But Hong Kong civil servants are basically conservative and do not have a tradition or capacity to create forward-looking public policies of their own. When confronted with opposing arguments and faced with difficult choice, civil servants are often happy to hide behind political neutrality or the non-intervention (or *laissez-faire*) arguments. Coupled with the financial conservatism at the local HKSAR Government and the absence of a tradition of having strong non-government think tanks (or political parties backed by think tanks) to provide a real alternative to government policy, *it has been difficult for Hong Kong to make much meaningful change in the last few years*. This development and outcome was not expected by many Hong Kong observers since Hong Kong's sovereignty returned to China in 1997.

Hong Kong's unique strengths

- 3.10 Some sentiments behind the argument for *laissez-faire* or less government intervention in Hong Kong have a great deal of merits. Hong Kong was essentially built on a foundation of "... *good laws, well administered*" since Hong Kong came under British Rule on 29 August 1842 after the Treaty of Nanking. Many local Chinese who returned with an overseas education recognized this special characteristic of Hong Kong and began building Hong Kong to what it is today from as early as the late 18th century. The British Government handed Hong Kong back to the People's Republic of China on 1 July 1997, but Hong Kong remains a Special Administrative Region (SAR) under Chinese rule. A legal and administrative system that is separate from mainland China has remained in place.
- 3.11 Base on this separation, the "*United States-Hong Kong Policy Act of 1992*"⁹ treats Hong Kong as a separate custom territory and Hong Kong can import

⁹ According to Michael Martin, a specialist in Asian Affair at the Congressional Research Service of the United States, "... there are warning signs on the horizon – particularly in Hong Kong's political, legal and economic systems – that could portend a desire by some for the U.S. to reexamine this relationship". See "*A Changing Hong Kong and U.S. Policy*", *Hong Kong Journal*, January 2011.

many technologies that have embargo on Mainland China by the U.S Government.

- 3.12 Other factors which give Hong Kong distinct advantages over mainland China in the area of “Innovation and Technology” include: *a free press, freedom of information, rule of law, a corruption free and professional civil service and a very liberal and free thinking environment*. Hong Kong is a territory of China that has done most of the important things right and a territory mainland China could continue to look at when faced with confusion regarding policy choices. These Hong Kong advantages have also been described as *the essential “first-level business conditions”* which enables Hong Kong to develop all the *“second-level business conditions”* for Hong Kong – the essential ingredients to turn into a world-class *innovation and technology centre and incubation and commercialization hub to service R&D outputs from Hong Kong, mainland China and from the world*.

Hong Kong and China’s 12th Five Year Plan

- 3.13 Despite conflicting views, Hong Kong cannot afford not to try to find a footing (positioning) and a more active role in China’s 12th Five Year Plan. Insisting on “*laissez-faire*” is not a feasible alternative. At the very least, Hong Kong must not miss out on China’s rapid economic development and run the risk of becoming totally irrelevant to this fastest growing economy which now ranks the second largest in the world.
- 3.14 Newspapers reported that the final version of China’s 12th Five Year Plan is expected to be published in May 2011. Editorials¹⁰ in the Chinese newspaper Mingpao compared the lack of policy innovation in Hong Kong’s economy to Nokia losing the number one position phone maker in the world and urged the Government to listen to warning signals. Another editorial in Mingpao also suggested that the next HKSAR Government should focus on developing potential new growth industries in Hong Kong.
- 3.15 One of the things Hong Kong could do for Mainland China is to make better use of its international outlook and multi-lingual capacity to bridge the cultural and business practice gaps between China and the more developed economies.

¹⁰ Mingpao editorials on : 13 February 2011(page A4) and 15 February 2011(page A18).

Hong Kong is the only common law area in China -- statute law (or continental law) is practiced in mainland China, Macau and Taiwan. Hong Kong also has considerable international credibility in its independent legal system, which can be used to help resolve IPR conflicts between China and the more developed nations in the West and Japan.

- 3.16 This cooperation process can have many names: “Innovation & Technology”, “Commercialization”, “Knowledge-based Economy”, “Soft Technology” or Hong Kong’s “Soft Power”. Hong Kong stands to gain substantial economic benefit for itself by linking itself to China’s technological capacity and at the same time, help China to achieve ambitious social and economic objectives in the 12th Five Year Plan.

4. What Hong Kong should try to do and to avoid

- 4.1 The Knowledge-based Economy is not new to Hong Kong. Since the early 18th Century, businessmen in Hong Kong have been using their knowledge of where to source and where to sell. Europeans in Hong Kong used “*advanced technology*” -- *the China Clippers*, the fastest sailing ships in the early 18th Century -- to ply trade route between China and Europe. Many local Chinese in Hong Kong made best use of their language skills and people-to-people network to team up with the European traders. These compradors amassed huge fortunes and firmly established Hong Kong’s role as a major trading centre of the world. Hong Kong has been far ahead of the mainland in the trading area but the gap is narrowing since the mainland opened up under “Reform and Opening”.
- 4.2 Some argue that Hong Kong is already a Knowledge-based Economy and nothing more needs to be done. Yet, businessmen have found that while Hong Kong has good capacity to develop technology in university laboratories, Hong Kong does not have a meaningful critical mass that would allow it to become a technology hub. Hong Kong has made some progress in technology but seems to have fallen into the same trap as Scotland¹¹ did. Even though Hong Kong should have been

¹¹ Scotland is a remote high cost economy that has an excellent academic record. However, Scotland has a poor company formation record and has historically been exporting the best brains and best innovations without creating significant economic benefits to Scotland.

better than any cities in China to develop commercialization knowhow, such a capacity cannot be found in Hong Kong. As a result, university-based researchers keep using government money to invent and develop technologies and end up selling the results cheaply to mainland and international companies.

Businessmen also take Hong Kong's R&D outputs to have them commercialize elsewhere¹².

- 4.3 Others have also argued that Hong Kong does not need “technology” but do acknowledge that the capacity to commercialized technology is needed. These sentiments are largely correct, but they do not point Hong Kong towards a useful economic strategy nor do they prescribe the magic key to unlock Hong Kong's economic potentials. The harsh fact is that Hong Kong's economic development has been standing still for a long time. Hong Kong must now focus on developing more high-value added knowledge-based economic activities, regardless of whether these activities are: service, technology, manufacturing, finance or trading to catch up with the rest of the developed world.

Things Hong Kong should try to do

- 4.4 Some academics and people who are more familiar with China's Five Year Planning process are now quoting John F. Kennedy's 1961 inaugural speech and reminding that Hong Kong should: “... *ask not what the country can do for you; ask what you can do for your country*”. The only appropriate way for Hong Kong to face up to the national 12th Five Year Plan is to be proactive – *design and come up with an appropriate strategy and the supporting implementation policy and measures to make things happen*. Being reactive, inactive or even pre-active¹³ -- preparing for it and waiting for things to happen -- cannot be the answer.

- 4.5 Hong Kong should focus on its core strengths – the essential attributes and

¹² Businessmen in Hong Kong have moved developing biotech businesses from Hong Kong to the USA, because the resources to commercialize it are more readily available there. There is also more credibility, as far as investors and users are concerned for high-tech business to domicile in the USA than in Hong Kong. University researchers have also sold technologies to mainland enterprises on the cheap side, as the HKSARG does not recognize that a commercialization support system is needed, even through significant R&D resources are provided to universities through the Research Grant Committee (RGC) and the Innovation and Technology Commission (ITC).

¹³ “Reactive” essentially means letting opportunities pass by; “inactive” is a follower strategy – wait till others do it first; and “pre-active” is closest to what Hong Kong has been doing – preparing the basic infrastructure but wait for private sector investments to make things happen.

competitive differences that mainland China and the rest of the world cannot duplicate easily. First amongst such core strength is “... *good law, well administered*”. The other strengths are: *Hong Kong as part of China*, integrity, free press, open information environment, free and independent thinking capacity, language and cultural proximity and therefore a unique potential to develop a world-class Knowledge-base Economy and commercialization capacity to service Hong Kong, China and the rest of the world.

- 4.6 Relying solely on the “Four Pillar Industries”¹⁴ (trading, finance, the tried and trusted accounting and legal professions and inbound tourist from the mainland to supply buying power to the retail industry) and the narrowly defined sector-based “Six New Industries”¹⁵ need not be the only strategies for Hong Kong. Such an approach assumes that the government knows best and it excludes new opportunities not foreseen by HKSAR Government officials. In the next few years, Hong Kong must try to diversify and try to be inclusive – opening itself up to all new economic development opportunities as long as they pass the high-value added potential test of the Knowledge-based Economy.

Hong Kong should try to avoid

- 4.7 There has been report that the “Six New Industries” of Hong Kong has been written into the final draft of the national 12th Five Year Plan¹⁶. The Mingpao editorial concluded that such a step is essentially a reminder to the next Chief Executive of Hong Kong (coming on board in July 2012) to develop “new points of growth” for Hong Kong and not an expectation for the current HKSAR Government to be able to do much during the remaining term. All of the “Six New Industries” qualify as part of the “Knowledge Economy” and they have no conflict with the high value-added test. However, a vertical sector-based industry support strategy is something Hong Kong should try to avoid. A more logical support strategy Hong Kong should adopt is the horizontal support strategy – an approach favored by the OECD and by the European Union as it does not name the “winning sectors” and exclude the “emerging” or “unforeseen” sectors which often become real winners because of market

¹⁴ “Four Pillar Industries” are: 1) Financial Services, 2) Trade and Logistics, 3) Tourism, 4) Professional Services.

¹⁵ “Six New Industries” are: 1) Education Services, 2) Cultural and Creative Industries, 3) Inspection and Certification, 4) Medical Services, 5) Environmental Protection Industry, 6) Innovative Science and Technology.

¹⁶ Mingpao editorials on page A18, Tuesday 15 February 2011.

driven forces.

- 4.8 Hong Kong needs to position itself clearly and play a useful role in the development of the Pearl River Delta (PRD) Region. However, knowledge travels by the speed of the internet. Except for Shenzhen, the PRD region is better known for its OEM¹⁷ industries and not for the region leading mainland China in innovation and technology. 50% of technology transfer happens in Beijing, followed by Shanghai, Zhejiang and Shenzhen. So it only seems logical that Hong Kong should not focus exclusively on cooperation with the PRD on commercialization of technology and on the subjects relating to Knowledge-based Economy.
- 4.9 Many books and articles have been written on the hard infrastructure of Hong Kong in the context of cooperation between Hong Kong and mainland China¹⁸. Indeed many major economic development initiatives of the world, such as Franklin Delano Roosevelt's (FDR, 32ND President of USA) "New Deals" to boost the depressed economy in the 1930s were very much based on building of roads and dams. The strategy of focusing on "hard" infrastructure building to provide economic development and employment is still relevant to the mainland as China is a developing economy. However, for a developed economy such as Hong Kong, additional investment in "hardware" will yield diminishing return on investment. The tendency to focus exclusively on "hardware" alone is not the answer. Hong Kong must also focus on continued improvement of the "software" – Hong Kong's human resources, legal and administrative system, social development, a capacity to commercialize R&D outputs and other advanced business support structure needed by a world class economy (i.e. the "Second Level Business Conditions" mentioned earlier in this paper).
- 4.10 There have been suggestions about extending the "Shenzhen River Loop" to include the land now classified as "Close Border Area" on the northern boundary of HKSAR. Instead of opening up the narrow strip of land to Hong Kong residents as proposed by the HKSARG, the proposal is to keep the fence

¹⁷ Hong Kong's industrial based moved into the PRD area in the 70s and 80s to take advantage of the low labour cost across the Shenzhen River. Many have not upgraded themselves and some describe these OEM (Original Equipment Manufacturing) industries as "assemblers" working on very thin margins and capturing only a tiny fraction of the value chain.

¹⁸ For example, books and article by Prof Yeung Yue-man, Professor of Geography and Director, Hong Kong Institute of Asia-Pacific Studies of the Chinese University of Hong Kong.

there so that shopping centres would be built there to attract “tax free” retail spending from Shenzhen¹⁹. There has also been strong lobbying from industrialists for HKSAR Government to give even bigger assistance to Hong Kong owned manufacturing industries that moved across the border in the 1980s²⁰, so that these industries could “absorb” more graduates from Hong Kong universities. One could only speculate if these proposed initiatives truly have Hong Kong and mainland China’s best interests in mind.

4.11 Hong Kong has a strong “mercantile mentality” and such lobbying could probably be expected. However, a focus on pursuing narrow sector-based favors from governments in mainland China and from the HKSAR Government must be avoided. Ignoring Hong Kong’s economic transformation and the wider interest of nation building is a strategy of pursuing “*profit without adding social and economic value to the territories our businesses operate in. It is not a wise, sustainable or true national development strategy.*”

5. Implications of a coordinated innovation & technology policy in Hong Kong

Hong Kong’s unique role in China’s economic development

5.1 A diplomat who is also a very well-learned scholar of contemporary Russian and Chinese history said Hong Kong is “... the part of China that has done most of the important things right”. He also said that if Gorbachev had a little piece of Hong Kong when he was trying to reform USSR through “Glasnost”²¹ and “Perestroika” in the 1980s, it would have been easier for him and he could have done a much better job.

¹⁹ Briefing by Joe Fang, Assistant Chief Research Officer of One Country Two Systems Research Institute at the HKGCC on Tuesday 11 January 2011. Dr Fang did not say if his suggestion is the final position taken by the Research Institute chaired Mr. C.Y. Leung, Executive Council Convenor.

²⁰ Many of these OEM industries now face “expulsion” from the Guangdong Government through increases in minimum wage and welfare conditions. The low cost labour Hong Kong industrialists had taken for granted is no longer available from mainland China unless they are prepared to move to the less developed inland provinces.

²¹ Mikhail Sergeyevich Gorbachev introduced “Perestroika” and “Glasnost”, the Soviet version of “Reform and Opening” to USSR in 1986 and 1988. He was seen as a failure by some as his reformed end with the collapse of USSR. When confronted with this point, Deng Xiaoping said that China was doing it differently as the real intention of China’s “Reform and Opening” was to bring economic benefits to Chinese people.

- 5.2 For the China's Reform and Opening, there was a period of time when many observers wondered whether Deng Xiaoping's brief experiment with markets would come to an end in the early 1990s because it had gone too far, too fast. Deng's second Southern Visit in the spring of 1992 put an end to such speculations. From 1993 onwards, mainland China truly abandoned the "old style" production method and the Chinese economy took off to a level that is beyond everyone's dream.
- 5.3 While Deng was thinking of nation building, movers and shakers in Hong Kong are businessmen and they could be thinking of commercial interests. A lack of historical perspective might also have led Hong Kong to overlook why a coordinated economic development policy in Hong Kong (which ought to include a "Knowledge-based Economy" strategy) has implications beyond Hong Kong and even China's border. Hong Kong had made much contribution in the early 80s by providing capital and production skills to the Pearl River Delta. Now that China is rich, Hong Kong's "soft power"²² has become more valuable than the money Hong Kong businessmen provided in the past. And these are the ingredients China is looking for to achieve the objective of *quality growth* -- not blind pursuit of GDP growth at enormous social and environmental costs -- during China 12th Five Year Plan (2011-2016).

Perspectives from the Greater Pearl River Delta Business Council

- 5.4 The *Greater Pearl River Delta Business Council Report*²³ probably reflects many thoughts of the Hong Kong establishment and therefore the official thinking of the HKSAR Government. The Council had correctly observed the "*reciprocity nature of the relationship between Hong Kong and mainland China* – what's good for Hong Kong must also bring benefit to Mainland China. However, the rest of the Report is mostly about enhancing the existing economic strengths (i.e. in logistics, finance and trading and the "Six New Industries" proposed by the HKSAR Government) – not the new economic potential of Hong Kong. The Report recognizes Hong Kong's potential as the regional headquarter for mainland enterprise and their bridge to North and South Asia. The need for some structural change and the need to find new growth engines for Hong Kong

²² Those "soft power" include: "... good law, well administered"; "A world economic city"; "A trusted territory of China that is in a position to link the mainland to the rest of the world" and "A territory mainland governments could look into if faced with difficult policy choices".

²³ "Hong Kong's Roles and Positioning in the Economic Development of the Nation" recommendation report by The Greater Pearl River Delta Business Council, September 2010.

were recognized. However, no specific strategies were offered in the five point conclusion of the Council's Report²⁴.

- 5.5 It does not seem that the "Knowledge-based Economy" as a reciprocal "win-win" strategy was considered as part of Hong Kong's overall economic development strategy by the Council. A specific measure of "... upgrading HK into an Intellectual Property Trading Centre" as mentioned in the Greater PRD Council Report was classified under the trading section. The Hong Kong Trade Development Council (HKTDC) also classified "Intellectual Property Trading" under the "Product Promotion" section and not the "Service Promotion" stream. It seems Hong Kong does not fully understand its own inadequacies, such as:
- i. Hong Kong's lack of commercialization capacity;
 - ii. Hong Kong's failing to link all the existing policy "dots" together;
 - iii. Lack of knowledge and awareness (know-what and know-why) of how to use its strongest points to upgrade Hong Kong economic activities; and
 - iv. Lack of awareness of Hong Kong's potential to develop a "silicon valley" type of economy that extracts an enormous amount of economic value from "Knowledge".

Lessons from OECD and European Union

- 5.6 Knowledge Economy is not just about creating or pushing back the frontier of knowledge. It is also about the creation of wealth through commercialization of knowledge. The OECD²⁵ defined "Knowledge-based Economies" as *economies that are directly based on the production, distribution and use of knowledge and information*. It was estimated that more than 50% of GDP in the major OECD economies is "Knowledge-based". There is a higher demand for highly-skilled workers in Knowledge Economies and correspondingly higher unemployment rate for those with lower-secondary education. While OECD countries have been losing jobs in the manufacturing industries, employment is growing in the high-technology, high-skilled sectors such as computers and pharmaceuticals.

²⁴ Page 40 and 41 of The Great Pearl River Delta Business Council Report, September 2010. Chart 1 following the conclusion actually showed that the number of Regional Headquarters in Hong Kong had declined from 1,298 in 2008 to 1,252 in 2009.

²⁵ The Knowledge-based Economy, OECD, Paris 1996.

5.7 Economists in the OECD are also continuing to search for other key ingredients for economic growth. They have found that the focus has been shifting from the traditional “factors of production” – *capital, labour, raw material and energy*, to “intangible factors” – particularly *knowledge and technological change*. OECD recognizes that the “diminishing return of capital” in the classical production model can be compensated by flow of “knowledge”. OECD embraces the Intellectual Capital Management (ICM) view of: “*Know-what*”, “*Know-how*”, “*Know-why*” and “*Know-who*”. But the most significant observations of OECD are:

- i. The link between Knowledge-based economy and the creation of *high-wage and high-quality employment*;
- ii. Productivity of developed economies is largely determined by the rate of *knowledge accumulation* and technical progress;
- iii. A new emphasis in government *policies and support systems* is needed, particularly in science and technology, industry, education, knowledge production, knowledge transfer and university/industry collaborations.

5.8 The Work Foundation of the UK²⁶ highlighted that the strategic goal for Europe is “... to become the most dynamic and competitive knowledge-based economy in the world. The Lisbon Agenda of the EU is in fact a bid for Europe to catch up with the USA in terms of innovation, technology and productivity. The lesson learnt in Europe since 2000 is that the knowledge economy cannot be built at a continental level. Some countries and regions, such as UK, Finland and Northern Europe are more successful than others.

5.9 Moving Hong Kong towards knowledge-based production is *not a sharp break from the past -- nor is it a “sector-based” support strategy* as misunderstood by some opponents after hearing “Knowledge-based Economy” or “Innovation and Technology”. It is a globalised trend driven by demand for higher value-added goods and services demanded by more sophisticated and more discerning consumers and businesses.

²⁶ The Work Foundation of the UK started off as The Industrial Society, which campaigned to improve the quality of working life more than 80 years ago. It is now a research foundation linked to the Lancaster University. Some of the comments in this section are based on two reports of The Work Foundation: 1) *The knowledge economy in Europe* and 2) *The knowledge economy: how knowledge is reshaping the economic life of nations*.

- 5.10 Hong Kong has all the basic ingredients – the “First Level Business Conditions”²⁷ that would enable it to connect all the existing policy measures together and truly launch itself into the league of First World Economies that are increasingly knowledge based. Many scientific, technological, research and education systems are already in place. Coming up with *a coordinated economic development policy and providing some business facilitation to turn part of the Hong Kong economy into a commercialization hub (along the lines of Silicon Valley, Boston and the Research Triangle of North Carolina) is not a big step for Hong Kong to take.*
- 5.11 Such a move would support creative start-ups, R&D outputs from Mainland China and in Hong Kong and would absorb the supply of young university graduates effectively. As a developed and high-cost economy, Hong Kong does not have much choice other than to follow the examples of OECD and EU in climbing up the economic ladder. Hong Kong needs to find a role and a market niche within the context of China’s 12th Five Year Plan and amongst the developed economies (USA, Europe & Japan) and developing economies of the world.
- 5.12 *The alternative is to become irrelevant to China’s economic aspirations as expressed in the 12th Five Year Plan and to other economies of the world.*

6. Proposed innovation and technology initiatives from Hong Kong

- 6.1 John Tsang, Financial Secretary of HKSAR Government appointed himself to Chair the *Steering Committee on Innovation and Technology*²⁸ of the Innovation and Technology Commission (ITC) as he announced the 2011-2012 Budget Speech on Wednesday 23 February 2011. The role of the Committee is to “...pull together the efforts of the industry, academia and research institutions to co-ordinate the formulation and implementation of innovation and technology policies”. This is a good sign and an indication that the HKSARG is becoming aware of the fragmented policy-making process. What solid improvement to

²⁷ “First Level Business Conditions” are the “soft power” that are already in Hong Kong: rule of law, effective corruption free administration, well regulated environment, excellent infrastructure, language skills and networking skills etc. Many developing countries had difficulties putting these conditions in place.

²⁸ Point 115 of the FS’s 2011-2012 Budget Speech.

Hong Kong's innovation and technology such a change might bring is still not known; but this is a change towards the right direction.

Innovation in Hong Kong should embrace

6.2 Opponents of “Innovation & Technology” and “Knowledge Economy” should take note that the subject is not about supporting narrowly defined “technology” or supporting narrowly defined business sectors. The concept, as it is practiced by the Danish Mindlab and many future centres²⁹ in Europe, embraces “social innovation”, “public sector innovation”, very broad perspectives on social and economic development, R&D and job creation and business and economic value creation across all business sectors.

6.3 The Design Council of the UK introduced design concepts in the delivery of public service. NESTA³⁰ (National Endowment for Science, Technology and the Arts) of the UK is the closest equivalent of the Innovation and Technology Commission (ITC) in Hong Kong. However, unlike the ITC that preferred to stay within the narrow definition of “technology support”, NESTA embraces “Soft Innovation³¹”, takes risk on behalf of the UK Government by investing in medium to long-term projects, informing the UK Government on innovation policy and encouraging a culture that helps innovation to flourish. The result is a UK innovation policy that embraces all innovative activities:

- ✓ The arts, design & creative industries;
- ✓ All aspects of intangible capital³² of the Knowledge Economy and the role of Intellectual Property (IP) and;
- ✓ How to extract economic value from Intellectual Property (i.e. not just narrowly focused “IP Protection” of the Intellectual Property Department).

²⁹ Organizations that practice the “Future Centre” concept in Europe and around the world include: Dutch Future Centres (Netherlands), Young Foundation (UK), Mindlab (Denmark), NESTA (UK), Lien Foundation (Singapore), Innovation Unit (UK), SITRA and STAKES (Finland) and Centre for Social Innovation (Canada).

³⁰ NESTA's (National Endowment for Science, Technology and the Arts) stated aim is to transform UK'S capacity for innovation.

³¹ “Soft innovation, towards a more complete picture of innovative change”, NESTA Research Report, July 2009.

³² “Intangible capital” includes a research jointly undertaken by Japan, Australia, Europe and Japan on the subject of “Intellectual Capital Accounting”. Setting international standard on the accounting of intangible, while not a high priority for financial accounting, is important in valuation of the “Intangible Assets” of companies when they are merged, or as they are bought or sold.

<http://www.wici-global.com/affiliations.php>

6.4 Of course, Hong Kong's innovation and technology role in China's 12th Five Year Plan (12-5) must include China's "*Self-initiated Innovation*" objectives. To help make things happen in China, Hong Kong needs to create a better business environment. Stakeholders in the mainland and overseas often see clearly that Hong Kong is in a better position than any cities in China to identify where the required expertise are ("know-who") and import those expertise ("Know-what", "know-how" and "know-why") from the UK and Europe in a seamless manner. Hong Kong is much more comfortable than the mainland with this process of knowledge accumulating from the West as it has been doing it for 150 years. All the legal and administrative systems European countries are familiar with are already in Hong Kong. The system and practices imported will accumulate in Hong Kong and the expertise would be localized and assimilated into the mainland system when China is ready for them.

Innovation and Technology Bureau to coordinate policies and initiatives

6.5 Samson Tam, Hong Kong legislator for the IT Sector, suggested publicly that Hong Kong needs an "Innovation and Technology Bureau"³³; it was suggested that the proposed Bureau "... will have the responsibility to build up links to initiatives in mainland China and the rest of the world under the "Open Innovation" theme. Hong Kong has been successful as a trading hub of goods, but Samson believes that Hong Kong also has potential to evolve into a trader of knowledge, linking R&D in universities and serving as a technology transfer and commercialization centre that serves mainland China and the world.

6.6 In an earlier document titled "The Knowledge-based Economy from the perspectives of the Commerce and Economic Development Bureau", APICC made a list of very specific policy suggestions that cut across nearly all the policy units of the HKSAR Government:

Financial Secretary's Office (FSO):

- i. Feasibility study on starting a HKSAR Government's "Knowledge-based Economy Coordination Unit" or start a Hong Kong version of Singapore's EDB (Economic Development Board) to coordinate economic development initiatives across government and non-government institutions³⁴.

³³ "Trader of Ideas", Friday 3 December, 2010, Page A19 of SCMP.

³⁴ The Financial Secretary responded by appointing himself to chair the Steering Committee on Innovation and Technology under the ITC.

- ii. Initiate a major study on the strategy and implementation measures of the Knowledge-based Economy” (a strategy paper that outlines Hong Kong’s overall economic development strategy and reconciles existing policy measures relating to “Four + Six Pillars” with the measures of the Knowledge-based Economy);
- iii. Investigate the feasibility of offering an Industry-by-industry support framework where the stakeholder and private-sector companies of the same industry gather and teach each other the best practices of Innovation and the Knowledge-based Economy;
- iv. Economic impact study on Hong Kong’s development into a Knowledge-based Economy and establish performance measures that point Hong Kong towards a sustainable, high-value added economic entity;

Constitution & Mainland Affairs Bureau (CMAB):

- v. Coordination with China’s 12th Five Year Plan and with provincial and municipal governments of Mainland China as an on-going project during the five year term of 12-5 Plan;
- vi. Keep a watching brief on issues and events that might cause some in the U.S. Congress to initiate a review on the “United States-Hong Kong Policy Act” which may end Hong Kong’s status as separate custom territory from Mainland China;

Commerce and Economic Development Bureau (CEBD) – Tourism & Commerce

Branch:

- vii. InvestHK to continue to attract high-value added inbound investment projects as an on-going project and to consider following the examples of Manchester and Melbourne to adopt “Knowledge-based Economy” as an inbound investment promotion strategy for Hong Kong in the context of China’s 12-5 Plan;
- viii. Define the roles of HKDTC and Overseas Trade Offices including the “Innovation and Technology Advisory Committee” of the HKTDC in helping to promote Hong Kong as a “Knowledge-based Economy”;
- ix. Intellectual Property Department (IPD) to continue to coordinate with WIPO (World Intellectual Property Office of the UN) and SIPO (State Intellectual Property Office of China) on international regulation and practices relating to the “Knowledge-based Economy”;

CEDB – Communication & Technology Branch (the unit well suited to host the Innovation and Technology Bureau proposed by Samson Tam):

- x. Implement and support the Hollywood Road Police Married Quarter project (on-going project driven by Development Bureau and CEDB); and examine this project and other “Creative Industries” initiatives in Hong Kong in the context of “Hong Kong as a Knowledge City” (or “Hong Kong as a Creative City”);
- xi. Consider the feasibility of adopting the UK’s DCMS (Department for Culture, Media and Sport) facilitation model where “media” and “sport” are integrated with the Creative Industries;
- xii. TELA (Television and Entertainment Licensing Authority) and OFTA (Office of the Telecommunications Authority) to investigate the Knowledge-based Economy from the perspectives of how to make best use of Hong Kong’s liberal information environment and free press through the creation of technical and licensing policy measures required to turn Hong Kong into an international media centre (e.g. for CCTV-9, Discovery Channels and Google), as a direct measure to support the “Creative Industries”;
- xiii. Investigate how to extend and enhance the successful role played by Cyberport (i.e. extending Cyberport’s knowhow in spurring start-ups in the digital entertainment industry to other Knowledge-based Industries, supporting the venture capital industry and hosting a industry-by-industry Commercialization Supported Unit);
- xiv. Innovation & Technology Commission (ITC) to consider policy measures, such as converting part of ITF (Innovation & Technology Fund) into a “Trading Funding” operation. This would allow part of ITF’s resources to approach funding projects as if they are longer-term investments that will have investment returns -- not as expense items that require tight control and scrutiny from government (i.e. following UK’s NESTA’s business model);
- xv. Office of Chief Information Government Officer (OGCIO) to continue to upgrade the Digital 21 Strategy and to facilitate Public Sector Information Reuse (PSI, an on-going project research stage);
- xvi. Facilitation of IP Trading and Technology Transfer (project at a feasibility study stage by Hong Kong Trade Development Council (HKTDC) and OGCIO);

Chief Secretary's Office

- xvii. Efficiency Unit (EU) and Government Records Office to investigate "Record Management" and "Intellectual Capital Management" as Knowledge-based Economy tools to retain the experience of an "aging" civil service and to facilitate "Public Sector Innovation";
- xviii. West Kowloon Cultural District Authority to evaluate and quantify the intangible economic-value added aspects of cultural development brought by the West Kowloon Cultural Zone (i.e. in addition to the standard financial performance measurements);
- xix. Information Services Department to develop a well crafted BrandHK strategy that supports the "Knowledge-based Economy";

Development Bureau

- xx. Development Bureau to help build "Social Capital" -- facilitate consensus building and informed discussion of controversial public issues in Hong Kong society by turning some Heritage Sites into "Public Space" to engage the public; for example by providing the physical space to policy bureaus to host "Future Centre for Development", "Future Centre for Transport and Housing" and a "Future Centre for the Environment" as tools to engage the public;

Health & Welfare Bureau

- xxi. Sponsor an industry-specific support unit to facilitate the awareness of Knowledge-based Economy practices, such as commercialization opportunities from medical innovations, patents on cancer treatment drugs and new medical procedures;

Home Affairs Bureau

- xxii. Coordinate with CEDB on feasibility of turning "sports" (e.g. Football) into "Creative Industries" using the UK's DCMS (Department for Culture, Media and Sport) facilitation model;

Education Bureau

- xxiii. Encourage universities to take up research or host research centres through grants provided by the RGC (Research Grant Committee) on industry standards or market development frameworks that have potential to bring substantial economic values to Hong Kong. Example of such researches include: 1) RMB & HK\$ Bond Market Development and Securities Credit Rating; 2) WICI, research project on "Intellectual Capital Accounting project" (accounting of "Intangible Assets") now being conducted by METI (Ministry of Economy, Trade and Industry) of

-
- Japan and universities in Japan and Europe;
- xxiv. Collaborate with the ITC to help fund university students, particularly graduate students, to work part-time (or full-time for a period of two years after graduation) within Hong Kong owned enterprise to help facilitate technology transfer between universities and enterprises³⁵.
- 6.7 The APICC had suggested that HKSAR Government could play the role of a creator of “virtuous ecology” to facilitate economic growth. Indeed, the idea of “Virtuous Ecology” has a Buddhist origin -- an “*Indra’s Net*”, often pictured as a “spider web” with jewels of water droplets attached: “... formless with qualities depend on the wisdom of the observer.” This metaphor is particularly relevant to Hong Kong’s role in the National 12th Five Year Plan. Such a facilitation role has no conflict with the market-driven philosophy of Hong Kong. In such as scheme, *government’s role is to build the “spider web” – a flexible facilitation framework with the right conditions, where self-organizing and shinning “jewels” of economic development results can be formed.*

7. Conclusion

- 7.1 One could easily argue that the HKSAR Government has no direct role to play in assisting Hong Kong’s economic development and facilitating the Knowledge-based Economy transformation. If one were to insist on the *laissez-faire* argument, then HKTDC will have no role to play in “Intellectual Property and Technology Exchange Centre” to service China and the world (xv of 6.5). The proposal to turn part of ITC into a “trading fund” operation to invest in medium and long-term project along the line UK’s NESTA (xiii of 6.5) will not merit consideration either.
- 7.2 Yet faithful defenders of *laissez-faire* probably cannot explain why the UK and the European Union are moving ahead and engaging Mainland China actively through various initiatives, including offering the expertise and network behind

³⁵ Previously known as Teaching Company Scheme (TCS), the Knowledge Transfer Partnership (KTP) in the UK has a 30 year history, over 1,000 active projects in the UK and facilitates the link between industries and universities by providing a full-time associate at company location as well as half-day per week campus-based academic support.

Enterprise Europe Network (EEN)³⁶ to mainland China. If Hong Kong were to insist on standing still and hanging onto *laissez-faire*³⁷, a motto invented by a French finance minister in the 1680s and brought into Hong Kong by Sir John Cowperthwaite in the 1960s, Hong Kong risks becoming irrelevant to the economic development of China and of the developed economies of the West.

7.3 Suggestions on copying the model of close collaboration between “Government/Industry/Research/University”³⁸ will not have universal support from Hong Kong. There will always be some in the business community who feel strongly that *non-intervention* is the only correct economic development model for Hong Kong. But standing still and hanging on past success often means “doing nothing” which will also attract criticism from the business community and the civil society in Hong Kong.

7.4 A few pointed comments made by a mainland professor³⁹ who has been collaborating with APICC on the Knowledge-based Economy subject might suitably conclude what are the proactive roles for Hong Kong in the context of the National 12th Five Year Plan:

- i. Hong Kong should not restrict itself and should look beyond traditional mode of cooperating with mainland China in the area of “High Technologies” and “Creative Industries” only. In assimilating the resources of the Pearl River Delta and the whole of China, Hong Kong needs to put more effort on “Soft Innovation” and “Soft Technology” and not just on the “Hard Technology” cooperation alone.
- ii. As a “special entity” of China that has risen after the Second World

³⁶ EEN is the largest global technology transfer network and is owned by the European Union.

³⁷ Sir John Cowperthwaite (1915-2006) was Hong Kong’s Financial Secretary of Hong Kong from 1961-1971. His successor, Sir Philip Hadden-Cave (Financial Secretary from 1971-81; Chief Secretary from 1981-85) took on and continued Sir John’s “Positive Non-intervention” policy which probably explain why the idea became almost chisel in stone in Hong Kong for more than 25 years.

³⁸ For example by C.Y. Leung at a speech at speaker luncheon hosted by the Better Hong Kong Foundation titled: “Economic Development, 12-5, SAR Government Functions and Roles” on 22 February 2001.

³⁹ Prof JIN Zhou-ying graduated from the University of Science and Technology of China (USTC) in 1965 before USTC was relocated to Anhui during the Cultural Revolution. In 1996 she was appointed by MOST (Ministry of Science & Technology) as the Experts Team Leader of Strategy for the S863 Plan (China High-Tech Research & Development Plan for 2001-2010). Prof Jin is now a senior researcher and professor of the Chinese Academy of Social Science and she knows the strengths and weaknesses of Innovation and Technology in Mainland China thoroughly. She’s also the author of a book titled: “Global Technological Change – From Hard Technology to Soft Technology”.

War, Hong Kong should look at its own economic development model in the next 40 years from a global perspective; Hong Kong not only has strengths to absorb resources from Mainland China, but also has the strength to absorb and assimilate resources and ideas from the world. Therefore, China should not do anything that could potentially weaken Hong Kong's international strengths and momentum.

- iii. Hong Kong should look beyond the narrowly defined economic and business role in 12-5 Plan, and should also look at the impact of Hong Kong's open and innovative environment on mainland China.
- iv. Hong Kong should also play the role of an outward-looking post for China via-a-via the rest of the world. Such a role might include Hong Kong as an experimental ground for China in "administrative systems" and "roles of governments". Such an internationalization role will not only have impact on China, but on the rest of the world as well.

7.5 The National 12th Five Year Plan is not an order from above. It is not a static thing, but a constantly evolving set of national development objectives Hong Kong could contribute to. Hong Kong needs to take this opportunity to upgrade its own economic infrastructure – or risk becoming irrelevant to the mainland economy and other economies of the world.