



# **Creating a World-Class Pearl River Delta Metropolis**

**Accelerating economic integration between  
Guangdong and Hong Kong**

## **Executive Summary**

**October 2008**

The Bauhinia Foundation Research Centre began its study into the development of a world-class Pearl River Delta Metropolis in February 2008. With Dr Zhu Wenhui serving as the Consultant, the research was undertaken by China Business Centre of Hong Kong Polytechnic University and the China Development Institute of Research in Shenzhen. Some 100 government officials, specialists, academics and industry representatives, 30 Hong Kong enterprises, 100 Guangdong enterprises, and 2,000 Guangdong and Hong Kong citizens were interviewed in the study. With specialists from Guangzhou acting as researchers or research advisors, the two teams conducted their studies independent of each other and compiled separate reports. Their findings were subsequently consolidated into a main report entitled “Creating a World-Class Pearl River Delta Metropolis”, which is presented together with the related reports.

## **1. Background and Focus of the Study**

- 1.1 In response to new developments in economic globalisation and regional economic integration in late 2007, the Guangdong and Hong Kong governments reached further consensus on high-level strategies for cooperation. This is conducive to the future economic integration of Guangdong and Hong Kong. The next 20 years will be a golden age in the acceleration of economic integration between the two territories, and in the creation of a world-class Pearl River Delta Metropolis. A highly competitive and influential Pearl River Delta Metropolis is both necessary and feasible.
- 1.2 The main objective of this study is to examine how the policies of the Guangdong and Hong Kong governments can be adapted to market developments, eliminating obstacles created by systems and policies, while speeding up cross flows in the key areas of production and livelihood exchanges between their two jurisdictions. To achieve mutual benefits, the two governments should cooperate and work together to build cross boundary infrastructural facilities while reforming systems and relaxing policies to remove unseen obstacles. In essence, the economic integration of Guangdong and Hong Kong is a process of establishing a cooperative relationship between two adjacent territories of the same nation operating under two different systems and customs authorities. Both sides need to move forward and cooperate under the WTO regulations and the CEPA framework. And the independence and uniqueness of various levels of Guangdong and Hong Kong’s societies and economies should be taken into consideration in the process.
- 1.3 The focus of this study is to formulate policy recommendations for the Guangdong and Hong Kong governments on elimination, to the greatest extent possible, of existing obstacles in their economies and societies created as a result of current systems and policies. At the same time, the

recommendations aim to maintain Guangdong and Hong Kong's independent and unique features while enhancing their economic strengths and competitive advantages in China and in the world pre and post-integration (both individually and as a collective entity). These recommendations are formulated under the framework of "One Country, Two Systems", WTO (CEPA), and market direction.

## **2. Review and Analysis of Guangdong-Hong Kong Cooperation**

- 2.1 Economic integration between Guangdong and Hong Kong since China's reform and opening up can be divided into three stages. The first stage - industry integration (1978-1997) - was characterised by Hong Kong's success in economic restructuring and Guangdong's success in industrialisation. The second stage can be characterised by economic integration (1998-2003) with Guangdong and Hong Kong distancing from each other and striving to resolve their own internal problems. But a new consensus for cooperation was eventually reached between the two territories, which have entered into the third stage of integration – systems integration (2004 to present). This stage witnessed the signing of CEPA that opened the door wider for unrestrained flow in the key areas of production and livelihood exchanges and provided more room for Guangdong and Hong Kong to integrate.
- 2.2 In this context, there are several important areas regarding the economic integration of Guangdong and Hong Kong. First is integration in the manufacturing industry, which is highlighted by continuous upgrading in the "Front Shop, Back Factory" cooperation model. Second, integration can be seen in Guangdong and Hong Kong's service industries after the signing of CEPA. Third is integration in the governance of society and people's livelihood, guided by the Hong Kong-Guangdong Cooperation Joint Conference. The fourth area involves integration of Guangdong and Hong Kong's transportation infrastructure under the "Great Pearl River Delta Study".
- 2.3 In the process of economic integration between Guangdong and Hong Kong, the characteristics of industry integration, economic integration and systems interaction emerged at different stages. Each new stage did not replace the previous one but rather added on to it. This has enabled the economic integration of Guangdong and Hong Kong to proceed gradually in depth and in scope. During the integration process, different models were adopted in different sectors. The more typical models included "Front Shop, Back Factory" in the manufacturing industry, CEPA in the service industry, "Joint Conference" in public governance, and "Integrated Coordination" in the planning of regional developments. It is this gradual advancement in the integration process and perpetual innovation in

integration models that provides the Pearl River Delta Region with the basic characteristics of a metropolis.

- 2.4 It should be noted that three key threads run through the Guangdong-Hong Kong economic integration process. First, systems transformation has been an external driving force. Segregation of the Guangdong and Hong Kong economies before China's reform and opening up to economic cooperation afterwards, and economic integration after the signing of WTO and CEPA all resulted from political arrangements and transformations in systems. Secondly, when it comes to economic cooperation and integration, adopting and adhering to the rules of market economy are critical to improving cross flows in key production and livelihood areas. Guangdong-Hong Kong economic cooperation has depended on relaxation in policies to facilitate cross flows. Further economic integration would depend on continuous improvements in the efficiency and effectiveness of cross flows. Thirdly, contact and exchanges between the people of Guangdong and Hong Kong have existed throughout all stages of integration, in a variety of ways and to different extents and the ethnic, cultural, and historic links between Guangdong and Hong Kong have never been broken. In fact, once external conditions allow, these ethnic and geographical ties are sure to grow even closer. The close relationships are reflected not only in economics, but in all facets of the economy, community, culture, and livelihood. The close interactions between the people of Guangdong and Hong Kong are an undercurrent in the development of the relationship between the two territories. Indeed, this thread is becoming increasingly important.
- 2.5 After almost 30 years of development, the economic integration of Guangdong and Hong Kong has produced impressive accomplishments: win-win and multi-win results have been brought to Guangdong and Hong Kong's economic development; industrialisation in Guangdong and post-industrialisation in Hong Kong have been accelerated; a cluster of townships has been fostered in the Pearl River Delta Region; cross flows across the boundary is gradually speeding up; and there has also been a shift from pure economic integration to integration at government, community and livelihood levels. At the same time, there are some problems in the Guangdong-Hong Kong integration process that need to be resolved: economic integration of the two territories is a "restricted integration"; there are challenges posed by discrepancies in the systems and governance of the two territories; and there exist competition and conflicts of interest among cities in the region. The trend shows that after almost 30 years of economic integration between Guangdong and Hong Kong, the Pearl River Delta Region has developed itself into an internationally important metropolitan area. The core objective of economic integration between Guangdong and Hong Kong in the future

should be to develop a world-class Pearl River Delta Metropolis.

### **3. Current Situation, Strategic Value and Development Goals of the Pearl River Delta Metropolis**

- 3.1 The “Pearl River Delta Metropolis” covers the nine Pearl River Delta cities, Hong Kong, and Macao. The term reflects the objective reality of such a metropolitan region in the Pearl River Delta Region. From an administrative, space and economic perspective, the Pearl River Delta Metropolis has already established a “city-oriented system”, and is mid-way in the formation of an extended metropolitan region, especially in the division of industries and provision of infrastructural facilities. To a large extent, therefore, the Pearl River Delta Metropolis is already a reality. Whether it is measured in terms of urbanisation and industrialisation, unrestrained cross flows in key areas of exchange, accessibility and convenience to travel between cities, or the integration of working and living accommodations among cities, the Pearl River Delta Region displays the features of an extended metropolitan region. In China, the Pearl River Delta Region has taken the lead in accomplishing the accumulation of primary capital. In terms of industry, infrastructure, capital, market, services, etc., the region possesses the driving forces and resources to develop itself into a world-class metropolis and is likely to become China’s first world-class metropolis.
- 3.2 Compared to the extended metropolitan regions of New York, Tokyo, and London, the Pearl River Delta Metropolis has its own special features. Firstly, it is not a “capital city” per se. Although it does not have the strengths and capabilities of capital cities that benefit from a concentration of resources in politics, economics, technology and culture, it has become the most market-oriented region in China owing to the “Hong Kong (Macao) factor”, an economy with unique systems that have penetrated into the Pearl River Delta Region. The market-oriented allocation of production factors and resources in this region is also the highest in China. Secondly, the Pearl River Delta Metropolis is not “mono-nucleus”. It has the “dual nuclei” of Hong Kong and Guangzhou, which together lead developments in the Metropolis. Thirdly, systems within the Pearl River Delta Metropolis are not “identical” and two different types of economies and different customs regimes co-exist. Within the Metropolis, there are separate customs and ports of entry, resulting in special expenditure items and attrition of efficiency. Market force alone cannot lead to the formation and development of the Pearl River Delta Metropolis and improvements and coordination in public policies are essential. Fourthly, coordination in the Pearl River Delta Metropolis is neither simple nor straight-forward. The existence of two special administrative regions, namely Hong Kong and Macao, the provincial capital city of Guangzhou, and the special economic

zones of Shenzhen and Zhuhai in this region has made regional coordination more difficult and this is a challenge that has to be faced and overcome by all cities in the Pearl River Delta Metropolis.

- 3.3 The basic strategy of economic integration between Guangdong and Hong Kong is to enhance quality of life and status of the Pearl River Delta Metropolis. The main strategic values in the formation of the Pearl River Delta Metropolis are to: (1) Speed up the upgrading and restructuring of industries in the region; (2) Ensure Hong Kong's continued prosperity and stability and increase the integrated competitiveness of the Pearl River Delta Metropolis; (3) Become an important engine for the development of China and the Pan-Pearl River Delta Region; and (4) Play an important role in the world economy.
- 3.4 Based on the above analysis, the objectives of developing the Pearl River Delta Metropolis would be to set higher standards, and make clear the future directions of its developments. The "higher standards" required for the Metropolis should be "world-class". To create a world-class Pearl River Delta Metropolis, it is necessary to see real enhancements in the manufacturing and service industries, agricultural and ecological environment, transportation network, and infrastructural facilities. Also, there should be real improvements in the economy, society, and people's livelihood benchmarked against world-class standards. Specifically, this could be divided into six major development goals: a world-class advanced manufacturing base and a regional innovative system; a world-class rail transport network; a world-class aviation hub and logistics and shipping centre; a world-class international education hub and a talent training base; a world-class business and leisure vacation sphere; and world-class green living environment.

#### **4. Industries of the Pearl River Delta Metropolis and Their Future Development**

- 4.1 At its core, the Pearl River Delta Metropolis is supported by its industries and their future development. After 30 years of China's reform and opening up, Hong Kong and the Pearl River Delta Region have jointly created an economic miracle based on the model of "Front Shop, Back Factory". However, entering the new millennium, the "Front Shop, Back Factory" industry cooperation model has been continuously weakened, and needs to be restructured. At a deeper level, this does not mean that Pearl River Delta industries are on a decline. Rather, this can be the start of another stage. In fact, signs of change were already becoming apparent in Guangzhou in 2000. Since 2000, the Pearl River Delta manufacturing industry has witnessed four major changes to its conventional export-oriented light industries: (1) Targeted development of pillar

industries; (2) Development of high-tech industries; (3) Gradual improvement in industry supporting systems; and (4) Strengthening and upgrading professional townships. All in all, the Pearl River Delta manufacturing industry entered an era of restructuring, consolidation, and upgrading after 2000 and preliminary achievements have been noted in three major sectors, namely the nine major industries, the high-tech industry and industry supporting systems. As a whole, future prospects for the manufacturing industry look bright.

- 4.2 The Pearl River Delta manufacturing industry is generally seen to be dominated by the processing trade, which is relatively low in the industry chain and value chain, with a high degree of homogeneity, low technology content and little added value. These characteristics, however, cannot totally represent the Pearl River Delta manufacturing industry which has, by and large, been stabilised, relatively clustered, highly internationalised, totally open and highly competitive. And, some products have entered the stage of brand building. In the long term, the Pearl River Delta manufacturing industry will stand to be robust and promising.
- 4.3 The Pearl River Delta service industry has been developed rapidly. It has advanced in tandem with the Pearl River Delta Region's high economic growth, rapid industrialisation and urbanisation, and increase in societal wealth. The ratio of the service industry in Hong Kong is higher than 90%. The gross output (at current prices) of Guangdong's tertiary industry increased by as much as 21.7% per annum from 1978 to 2007, higher than the 20% growth of the manufacturing industry. Spanning "across the boundary but not across districts", the Pearl River Delta Metropolis' service industry is characterised by cascading development in the whole industry; balanced development between producer and consumer service industries and synergistic development between the service and manufacturing industries. With a good base for development, the service industry has both geographic and system advantages. At the same time, it encounters the following inadequacies: (1) Both the overall standard and standard of economic development fall far behind international standards; (2) There is imbalance in the internal structure of the service industry and the progress of upgrading and restructuring is slow; (3) There is limited marketisation and the market entry threshold is high, resulting in the problem of excessive monopolisation. Despite these shortfalls, when compared to the overall performance of their counterparts in the Yangtze River Delta, the Pearl River Delta service industry on average performs better.
- 4.4 In spite of the challenges Pearl River Delta industries face, there are also opportunities ahead for them. One should be objective in evaluating the Pearl River Delta Region's processing trade and industrial structure. The processing trade plays a very important role in the economic development

and upgrading of industry in the Pearl River Delta Region. It is an effective way for less developed regions to advance rapidly. It is a normal phenomenon against the global backdrop of division of labour and industry collaboration, and is a more feasible option for developing countries and regions. Meanwhile, as the Pearl River Delta processing trade and industries face the challenge of rising costs, it should grasp this opportunity to upgrade its industries.

- 4.5 The future industry structure of the Pearl River Delta Region will be anchored by the Hong Kong-Shenzhen, Guangzhou-Foshan, and Macao-Zhuhai industrial development poles. A triangular industrial network will be formed. Industries will be developed in the inner and outer rings. The future industrial development of the Pearl River Delta Metropolis should focus on the service industry (including producer service industries). It should develop new industries based on high and new technology. There should be a clear division of labour and collaboration amongst internal industries. More importantly, the new industry framework of the Pearl River Delta Region should be a result of interactions between Guangzhou and Hong Kong. Under this positioning, Hong Kong will have three major missions: (1) Participate in the development of a “Technology Belt” and “Knowledge Belt” along the Pearl River Delta’s eastern ring; (2) Participate in the development of a “Leisure Belt” and “Ecological Belt” along the Pearl River Delta’s western ring; (3) Participate in the development of an “Innovation and Cultural Ring” in the Pearl River Delta Metropolis.

## **5. Planning and Construction of Public Infrastructural Facilities in the Pearl River Delta Metropolis**

- 5.1 The planning and construction of public infrastructural facilities are critical to unrestricted and effective movements internally and externally for a Metropolis. A metropolitan region can only maintain economic innovation and vitality when free movement reaches a desirable level. Whether the public infrastructural facilities are well developed and integrated, and whether the movement of the essential factors can help achieve efficiency and low capital cost will be important yardsticks to measure the level to which a metropolis has reached.
- 5.2 The Pearl River Delta Metropolis is economically the strongest in China. It is also the nation’s most urbanised, marketised, and internationalised metropolis. Its public infrastructural facilities are characterised by developed road transport networks, rapid development in rail transport, successful positioning as an aviation hub in the Asia-Pacific region, established cluster of world-class ports, and well-connected ports of entry and cross boundary infrastructural facilities. In the planning of future

public infrastructural facilities and transportation networks (including the planning and construction of rail transport, road networks, airport clusters, port clusters, cross boundary port facilities, major bridges and tunnels, etc.), the major items include a 2,000 km intercity rail transport network, the Wuhan-Guangzhou Express Passenger Railway, Guangzhou-Zhuhai Intercity Rapid Mass Transit, Xiamen-Shenzhen Railway, Hong Kong-Zhuhai-Macao Bridge, Hong Kong-Shenzhen Airport Rail Link, Guangzhou-Shenzhen-Hong Kong Express Rail Link, Liantang-Heung Yuen Wai Control Point, Shenzhen-Zhongshan Tunnel/Bridge, as well as plans for more expressways, airports, and ports.

- 5.3 According to planning, an integrated transportation network with an emphasis on rail will be established in the Pearl River Delta Metropolis. By 2010, cities along the two axes of Guangzhou-Zhuhai-Macao and Guangzhou-Shenzhen-Hong Kong will be within one hour's driving distance. By 2030, rail transport in the major cities will be linked up seamlessly with intercity railways, and all large townships will be within one hour's driving distance. This study forecasts that by 2010, the air passenger traffic volume of the Pearl River Delta Metropolis will exceed the current level of the London metropolitan area. Port throughput will continue to increase, and the Pearl River Delta port cluster will maintain its position as the world's largest. By 2030, operations within the Pearl River Delta Metropolis will gradually become highly efficient and of world standard. In the future, the Pearl River Delta Metropolis will become an important integrated, international transportation hub and a world-class international trading centre.

## **6. Analysis and Forecast on the Economic Effects of the Pearl River Delta Metropolis**

- 6.1 According to the forecasts of this study, the development of the Pearl River Delta Metropolis will spur growth in the region's GDP, trade and investment: (1),GDP growth in, Hong Kong and Macao by 2038 will exceed HK\$30 billion; that of the Pearl River Delta Region will exceed RMB 150 billion; and that of the Pearl River Delta Metropolis as a whole will exceed US\$27 billion; (2) by 2038, effects on trade volume growth in Hong Kong and Macao will exceed HK\$54 billion; that of the Pearl River Delta Region will exceed RMB 170 billion; and that of the Pearl River Delta Metropolis as a whole will exceed US\$33 billion; (3) by 2038, effects on investment growth in Hong Kong and Macao will exceed HK\$9 billion; that of the Pearl River Delta Region will exceed US\$20 billion; and that of the Pearl River Delta Metropolis as a whole will exceed US\$30 billion.
- 6.2 Findings of an international comparison of the GDP of the Pearl River Delta Metropolis show that based on current exchange rates, the GDP of the

Pearl River Delta Metropolis in 2038 will be comparable with that of the New York metropolitan area. According to conservative estimates, the GDP of the Pearl River Delta Region will exceed US\$700 billion in the near term (2010), attaining the economic size of the London metropolitan area in 2006. In the medium term (2020), the GDP of the Pearl River Delta Region will amount to US\$1,300 billion, comparable with the economic size of the New York metropolitan area in 2006. In the long term (2038), the GDP of the Pearl River Delta Region will exceed US\$2,700 billion, comparable with the economic size of the New York metropolitan area in that year. On purchasing power parity, the GDP of the Pearl River Delta Metropolis will exceed that of the three big metropolitan centres by 2018. Conservative estimates in the near term (2010) put the Pearl River Delta Metropolis GDP at US\$1,300 billion, attaining the economic size of the New York metropolitan area in 1997. In the medium term (2020), the GDP of the Pearl River Delta Metropolis will be around US\$2,600 billion, doubling the GDP of the London metropolitan area and larger than the economic size of the three major international metropolitan centres. In the long term (2038), the GDP of the Pearl River Delta Metropolis will exceed US\$5,500 billion, being 1.8 times, 1.9 times and 3.5 times that of the New York, Tokyo, and London metropolitan areas respectively.

- 6.3 An international comparison of the per capita GDP of the Pearl River Delta Metropolis shows that in 2038, it will reach the level of the London metropolitan area in 2005 based on current exchange rates. According to conservative estimates, the per capita GDP of the Pearl River Delta Metropolis will exceed US\$13,000 in the near term (2010), amounting to around one-quarter of the average of the three major international metropolitan centres. In the medium term (2020), the per capita GDP of the Pearl River Delta Metropolis will amount to US\$23,000, or about 40% of the average of the three major international metropolitan centres. In the long term (2038), the per capita GDP of the Pearl River Delta Metropolis will be around US\$45,000, reaching over 50% of the average of the three major international metropolitan centres and comparable to the development level of the London metropolitan area in 2005. Meanwhile, based on purchasing power parity, the per capita GDP of the Pearl River Delta Metropolis in 2038 will likely reach the average level of the three major international metropolitan centres. It is estimated that the per capita GDP of the Pearl River Delta Metropolis will reach US\$24,000 in the near term (2010), about one-third of the average of the three major international metropolitan centres. In the medium term (2020), the per capita GDP of the Pearl River Delta Metropolis will reach US\$45,000, attaining 60% of the average of the three major international metropolitan centres. In the long term (2038), the per capita GDP of the Pearl River Delta Metropolis will be around US\$100,000, exceeding the average of the three major international metropolitan centres

## **7. Obstacles and Problems to be Resolved in the Creation of the Pearl River Delta Metropolis**

- 7.1 Although the Pearl River Delta Metropolis already exists as a basic reality, the integration and development of the Pearl River Delta Metropolis remains at its preliminary stage. There is a long way to go before it becomes a world-class Metropolis. After understanding the development path of the economic integration between Guangdong and Hong Kong, the current development situation, strategic value and development goals of the Pearl River Delta Metropolis, its feasibility and components, and its future competitiveness and capability, it is necessary to pay attention to the discrepancy in systems within the Pearl River Delta Metropolis, existing obstacles and problems, and the consequences if such obstacles and problems are not properly resolved. On this basis, it should be noted that there is common desire and common interest within the region for concerted development. This common ground will help confirm the way to solve obstacles and problems.
- 7.2 With the exception of state sovereignty, Guangdong, Hong Kong, and Macao have different political systems, economic policies, legal systems, public administration systems, etc. These differences are not entirely negative. Rather, because of China's guarantee to maintain special systems for Hong Kong and Macao, the two cities can leverage on their soft advantages. It is conducive to the integration of the Pearl River Delta Metropolis in acknowledging the differences in the legal, economic, public administration and social services systems and identifying areas for further improvement and upgrading.
- 7.3 Some problems and obstacles exist in the establishment process of the Pearl River Delta Metropolis. Many of the obstacles and problems are attributable to the differences in systems mentioned above, but some of them arise from other factors. First of all, in planning for their own economic developments, stakeholders of the Metropolis often focus only on local developments, neglecting the bigger picture of benefits through concerted development in the Metropolis. Secondly, there should be more communication and interchange among stakeholders within the Metropolis, particularly between Guangzhou and Hong Kong, and between Zhuhai and Macao. There is a need to strengthen their mutual understanding and trust. Thirdly, many cities in the Metropolis treat each other as competitors rather than partners. As a result, there is excessive or even hostile competition in a large proportion of industries. Fourthly, stakeholders within the region view concerted development differently. Some even look at it with a zero-sum game mentality – a development for one party will be a threat to another. These obstacles and problems include: problems in cross flows in key areas; problems in coordinating the planning and

construction of major public infrastructural facilities; problems of similar industry structures and excessive competition; problems of unaligned functions of cities. It is necessary to address the consequences of these problems.

7.4 From a global perspective, the abovementioned differences and problems in the Pearl River Delta Metropolis are special and unique. They are special because the Pearl River Delta Metropolis is geographically one entity, situated at the forefront of “One Country, Two Systems”. The integration of Guangdong, Hong Kong and Macao is different from the integration of Hong Kong and Macao with other regions. While the integration of Beijing and Hong Kong or Shanghai and Hong Kong is more about economic cooperation, the integration of Guangdong, Hong Kong and Macao covers not only economic, but also social and daily livelihood domains. This is unique because there are no precedents or other references in the world of one metropolis having different economic entities, customs territories, and political, legal and public administration systems. One has to understand fully the uniqueness of the Pearl River Delta Metropolis to appreciate that problems arising from such a unique situation require innovative solutions.

7.5 It is necessary to understand fully the common interests of Guangdong-Hong Kong-Macao cooperation. After Hong Kong’s return to China in 1997, obstacles in systems that existed under colonial rule disappeared. “One Country, Two Systems” guaranteed the political and legal systems of Hong Kong would be maintained, and Hong Kong could continue to enjoy special competitive advantages due to the difference in its systems from those of the Mainland. Other economic differences between Hong Kong and the Mainland gradually diminished with China’s accession to the WTO and the signing of CEPA between the Central Government and the Hong Kong SAR Government. Hong Kong will further rely on the Mainland for development, and its economic, social, and cultural integration with the Mainland will be accelerated. The relationship between Hong Kong and the Mainland is developed primarily and mainly through the Pearl River Delta Region. Hong Kong and the Pearl River Delta Region are reverting to the inseparable, coherent state prior to the 1950s. The political and legal systems of Hong Kong under the “One Country, Two Systems” framework would increase the competitiveness of Hong Kong and the diversity and innovativeness of the Pearl River Delta Region including Hong Kong and Macao. They would not constrain the integration and development of the Pearl River Delta Region, and should not restrain the region’s economic, social and cultural interchange, integration, and collective transition. In fact, regional economic integration has become mainstream political consensus. Some European countries have overcome ideological, system, and governance barriers, softened traditional

views about state sovereignty, and moved swiftly towards economic and market integration. Some have even moved towards political integration and enjoy tremendous strategic benefits. If different countries can achieve market integration, then the Mainland, Hong Kong and Macao, which belong to the same country, should seek to further liberate their mindset from this perspective to ensure Hong Kong is able to maintain long-term prosperity and stability. Findings of the surveys conducted as a part of this study reveal that most residents in the two territories support further integration of the Pearl River Delta Metropolis.

## **8. Policy Recommendations on the Creation of the Pearl River Delta Metropolis**

8.1 To realise the vision of the Pearl River Delta Region becoming a convenient place to live and work in, develop a world-class Pearl River Delta Metropolis, and turn it into a centre of business, leisure, and quality green living, it is necessary for both Guangdong and Hong Kong to coordinate and collaborate in economic, social, as well as daily livelihood areas. Guangdong and Hong Kong should have the common goal to extend their relationship from solely economic cooperation to multi-level linkages, and to speed up the overall integration of the Pearl River Delta Metropolis. They can eventually develop the region into a world-class metropolis as famous as the New York, London and Tokyo metropolitan centres. Guangdong and Hong Kong should bring the matter up to the level of national strategy, strengthen the mindset for cooperation, collaborate and plan for the coordinated development of the Pearl River Delta Metropolis, and ensure it plays an important role in China's socio-economic development as well as in the new round of global and regional competition. To accelerate innovation and breakthrough, this study has formulated 22 specific policy recommendations in 11 different areas.

8.2 Jointly plan the future development strategies of the Pearl River Delta Metropolis

**1. Strengthen and implement the strategic development plans of Guangdong and Hong Kong which complement each other.** From a strategic point of view, it is necessary for long-term development planning of Guangdong, Hong Kong, and Macao (town planning in the case of Hong Kong and Macao) to be strengthened and be complementarily and effectively linked. Linkages in long-term development plans would not only integrate the three territories into a unified entity in the future; but more importantly, they would provide a recognised legal framework to prevent unnecessary adjustments and changes by individuals. The best opportunity to strengthen and realise complementary long-term planning for the development of Guangdong, Hong Kong, and Macao lies with China's

commencement in the research and production of the “*Layout Plan for the Reform and Development of the Pearl River Delta Region*”. Guangdong, Hong Kong, and Macao should be actively engaged in this study, putting forth proposals that would be beneficial to their interest and seeking consensus at the strategic level. This would provide strong legal support to the sustainable development of the Pearl River Delta Metropolis.

**2. Set up an industry transfer park in the Beibu Gulf region; Guangdong, Hong Kong, and Guangxi join hands to develop a new platform for “10+1”.** In economic geography, the Pan-Pearl River Delta Region is the economic hinterland of the Pearl River Delta Metropolis. At the national level, the smooth establishment and development of the China-ASEAN (10+1) Free Trade Area is critical to the Pearl River Delta Metropolis being able to demonstrate the full potential of its importance in the Pan-Pearl River Delta Region. The development of Guangxi’s Beibu Gulf region has been elevated to the level of national strategy with the region becoming increasingly important. Guangdong, Hong Kong, and Guangxi should have the potential to strengthen their cooperation on the basis of mutual benefits. The more practical way would be to establish a “Beibu Gulf Guangdong-Hong Kong Industry Transfer Cooperation Park” that would fully leverage on the strengths of Guangdong’s manufacturing industry and Hong Kong’s service industry. It would generate clustering and radiation effects and provide a new platform for the “10+1” Free Trade Area, alongside China’s efforts in speeding up the establishment of the Free Trade Area.

- 8.3 Take the establishment of the Guangdong-Hong Kong-Macao Close Cooperation Zone as an opportunity to implement CEPA’s head start mechanism

**3. Implement CEPA’s head start mechanism, and establish the Guangdong-Hong Kong-Macao Close Cooperation Zone.** In June 2008, the Guangdong Provincial Committee of the Chinese Communist Party and the Guangdong Provincial People’s Government proposed to establish a “Guangdong-Hong Kong-Macao Close Cooperation Zone”. The proposal was positively received in Hong Kong and Macao. A key to establishing the Guangdong-Hong Kong-Macao Close Cooperation Zone is to give Guangdong the right to be the first to implement the new CEPA initiatives. It can take the lead to establish a Pearl River Delta sub-regional cooperation mechanism. It might also suitably modify its related policies according to the implementation needs of CEPA. The opportunity can be taken to improve its economic and administrative governance with the benefit of CEPA. Meanwhile, it should ensure that its head start actions provide good examples for other regions to follow.

**4. Be innovative in designing the Hong Kong-Guangdong Cooperation Joint Conference system, to provide institutional safeguards for CEPA's implementation.** In implementing CEPA in Guangdong, Hong Kong, and Macao, and to establish the Pearl River Delta Metropolis, it is necessary to have in place a mechanism and platform through which Guangdong, Hong Kong, and Macao can jointly research CEPA-related matters and development trends in the Pearl River Delta Metropolis. This mechanism and platform can be used to coordinate matters within the Pearl River Delta Metropolis and drive collaboration and progress on major projects. It is necessary to be innovative in the Hong Kong-Guangdong Cooperation Joint Conference for it to play an important role. Taking the Cooperation Joint Conference as the first layer, it is suggested the following layers can be added: second layer – Regional Chief Executives Joint Conference; third layer – Regional Department Heads Joint Conference; fourth layer – Joint Conference Secretariat; fifth layer – Specialist Teams and Professional Committees.

- 8.4 Establish a public governance framework in Guangdong and Hong Kong for community and daily livelihood matters

**5. Explore the establishment of a public governance framework for the Pearl River Delta Metropolis.** Examining the classifications within the service industry according to the roles and functions of markets, communities and governments, it is shown that most CEPA measures in the services trade cater to economic and production-related service industries. Very few cater to community-related businesses such as education, culture, health and hygiene, and social welfare, etc. It can be said that, to a large extent, CEPA cannot cover the social and livelihood services required by the public in Guangdong, Hong Kong, and Macao. Given the Pearl River Delta Metropolis's specialty and uniqueness in the world formed under "One Country, Two Systems", and the practical needs of the Pearl River Delta Metropolis in the social and livelihood areas, there is a pressing need for special arrangements in classifications within the service industry. If, say, the "*Hong Kong (Macao) Basic Law*" is a political arrangement for Guangdong (the Mainland), Hong Kong, and Macao, and CEPA is an economic arrangement for Guangdong (the Mainland), Hong Kong, and Macao, there is now a pressing need from the Central Government level down to the level of Guangdong, Hong Kong, and Macao to establish a public governance policy framework for social and livelihood affairs in the three jurisdictions.

**6. Conduct a Pilot Test in Shenzhen for Guangdong-Hong Kong-Macao cooperation in public governance of social, daily livelihood matters.** With their special geographical locations, Guangdong, Hong Kong, and Macao could, based on CEPA, explore cooperation with a larger scope to

cover, say, social and livelihood matters. Through this type of cooperation, Guangdong could improve its governance in these areas and refine community governance bodies and mechanisms to set a good example for other regions. As Shenzhen has the geographical advantage of being located adjacent to Hong Kong, a pilot test can be conducted in Shenzhen on Guangdong-Hong Kong cooperation in social and livelihood areas. The pilot test might explore the possibility and feasibility of establishing Hong Kong-style hospitals, Hong Kong-style schools, and Shenzhen Campuses for Hong Kong tertiary institutions in the Special Economic Zone.

- 8.5 Guangdong and Hong Kong join hands to improve the ecology of the manufacturing industry and develop a world-class regional innovation system

**7. Promote local restructuring and upgrading of the processing enterprises in the Pearl River Delta Metropolis.** Guangdong and Hong Kong should join hands to promote restructuring and upgrading of the Hong Kong-funded enterprises engaged in the processing trade in the Pearl River Delta Region. This would help introduce high-tech and production-related services into the manufacturing industry. The role of the Pearl River Delta manufacturing industry in the global industry chain could then be enhanced. Focus should be on: changing and transforming mindsets on processing trade policies; consolidating the power of customs, tax authorities, and local governments to further improve the passage of goods through customs; adjusting processing trade policies from restricting “low value-added” businesses to encouraging enterprises to procure materials, parts and components locally, and extend the production chain.

**8. Establish a regional innovation system based on the Shenzhen-Hong Kong Innovation Circle.** Cooperation in the “Shenzhen-Hong Kong Innovation Circle” should be deepened and broadened to form a regional innovation system. This will provide the Pearl River Delta manufacturing industry with the technology and momentum necessary to upgrade and restructure. The development of the Hong Kong Science Park should be leveraged to align its high-tech resources with those of Shenzhen. The innovation resources of China and the world can then be fully integrated and the “Shenzhen-Hong Kong Innovation Circle” can be promoted to other areas in the Pearl River Delta Region. The financial and high-tech resources of the “Shenzhen-Hong Kong Innovation Circle” should be used to create the right environment to perfect the software, hardware, and supporting services needed to develop a complete service chain from the development of innovative enterprises to their ultimate listing on the Growth Enterprise Board through initial public offerings. Living environment should be improved to attract high quality talent to move to the Pearl River Delta Region. A new type of industrial

zone should be constructed and a platform established for the upgrading of the manufacturing industry.

- 8.6 Promote exponential development in the Pearl River Delta service industry by making reference to the Hong Kong-Zhuhai airport cooperation model

**9. Create a cooperation model for the service industry in the Pearl River Delta Metropolis.** The Hong Kong-Zhuhai airport cooperation experience serves as a good example for future cooperation between Guangdong and Hong Kong. It is also considered one of the best ways for Hong Kong to export its services. Apart from production-related services, the focus for Guangdong-Hong Kong cooperation in the service industry should include consumer services and public services. Hong Kong's mature management models can provide new momentum to enhance the service industry in the Pearl River Delta. The synergy and complementary effects resulting from collaboration among the service industries of different cities and districts in the Pearl River Delta Region would lead to a fission effect in the development of the service industry in the Pearl River Delta Metropolis, from the operation of ports and airports, to conventions, exhibitions and tourism. The transfer of Hong Kong's service industries to Guangdong is different from the transfer of manufacturing industries in the past. A genuine transfer of Hong Kong's service industries should bring international management standards and requirements to Guangdong enterprises through cooperation in shareholding, entrusted management, etc. After replication, fission, and expansion, a unified services market would be formed in the Pearl River Delta Metropolis. The Guangdong and Hong Kong governments should strive for innovation in cooperation within the service industry, unify standards, and foster their development to world-class levels.

**10. Promote full cooperation between Hong Kong's public institutions and Guangdong government authorities at all levels.** The functions of Hong Kong's public institutions are similar to the public institutions and some state-owned enterprises in the Mainland. While they undertake public administration work, they operate like corporations adhering to market forces. The uniqueness of these public institutions makes them an invaluable resource to deploy and determines the important roles they have to play in the integration of Guangdong and Hong Kong. Although these institutions have already played an important part in Guangdong-Hong Kong cooperation, their role has not received proper attention. In the past, the most importance was placed on enterprises, followed by governments. Therefore, it makes much sense to promote full cooperation between Hong Kong's public institutions and their counterparts at all levels of the Guangdong government in the establishment of the Pearl River Delta Metropolis. For instance, working closely together, Guangdong's relevant

departments and public institutions like the Hong Kong Trade Development Council and Hong Kong Productivity Council could provide great support to Pearl River Delta enterprises in “going global”.

- 8.7 Guangdong and Hong Kong form joint-ventures to jointly construct and operate the Pearl River Delta Region’s railway transportation system

**11. Grasp the opportunity to accelerate construction of the Pearl River Delta Region’s railway transportation system.** With its sub-prime crisis, the American economy is beginning to slacken and its leading role in the global economy is weakening. The crisis has also triggered a global economic turmoil and the pace of development in the global economy will definitely slow down. Under this economic environment, it is likely that China’s economy will also face severe challenges, and there will be a pressing need for the commencement of major projects to provide fresh impetus to economic development. Therefore, the next few years will be an opportune time to start construction of large-scale infrastructural projects. According to Guangdong’s development plans, a 2,000 kilometre intercity rail transport network involving “three rings and eight spokes” will be built in the Pearl River Delta Region in the future. This is a tremendously large infrastructure project. Hong Kong’s railway system is considered one of the best and most densely-utilised in the world. It is well-known for its safety, reliability, excellent customer service, and high efficiency. The MTR Corporation of Hong Kong is also one of the most profitable railway companies in the world, providing public transport services to the satisfaction of the people of Hong Kong. Therefore, the MTR Corporation can be invited to participate in the construction and operation of the Pearl River Delta intercity rail transport network. Based on different levels of difficulty in cooperation, three cooperation models can be considered. First, Guangdong and Hong Kong could form the Pearl River Delta Rail Transport Corporation and fully cooperate in planning, construction, operation, etc. This Corporation would be able to leverage on the MTR Corporation’s ability to raise financing in capital markets as a listed company, resolving financing problems in the construction of the Pearl River Delta rail transport network. The second option is entrustment. The MTR Corporation could be entrusted to operate the Pearl River Delta intercity rail transport project, establishing a unified, internationalised intercity mass transit railway network in the Pearl River Delta Metropolis. Third, the MTR Corporation might cooperate with individual cities of the Pearl River Delta Metropolis, and be responsible for planning, financing, construction, and operation of the intercity rail transport projects in those cities. At present, the Guangzhou-Shenzhen-Hong Kong Express Rail Link is being constructed and the MTR Corporation should be invited to participate. Guangdong and Hong Kong should set up an organisation as soon as possible to operate the railway. This would provide the foundation and

accumulate experience for larger-scale cooperation in the future on construction of the rail transport network in the Pearl River Delta Metropolis. In addition, consideration can be given to further develop the potential of Guangshen Railway Co Ltd which is already listed on the Stock Exchange of Hong Kong and the New York Stock Exchange. In December 2006, the company returned to the Shanghai Stock Exchange A Share Index.

**12. Form a financial holding company between Guangdong and Hong Kong to finance large cross boundary infrastructural projects.** When it comes to investment, financing, and project management, Singapore's Temasek Holdings serves as a good example for Guangdong and Hong Kong. Temasek Holdings is an investment company incorporated in June 1974 under Singapore Company Law. It owns 20 large "government-linked companies" (GLC), which account for 12% of Singapore's GDP. These GLC's are involved in many industries and sectors touching on the daily lives and work of Singaporean citizens including telecommunications, finance, aviation, technology, real estate, etc. Most of the enterprises involved in the Pearl River Delta rail transport project are either state-owned enterprises (of Guangdong) or government-owned institutions (of Hong Kong). Therefore, Guangdong and Hong Kong could take reference from Temasek Holdings and form a financial holding company to coordinate the overall financing and operation of the rail transport project. On this basis, they could also consider setting up a similar organisation for the Hong Kong-Zhuhai-Macao Bridge and other large cross boundary infrastructure projects. The financial holding company might raise capital from the community, and manage and operate the projects according to market principles.

**13. Planning for railway transportation in the Pearl River Delta should reflect the vision of the Pearl River Delta Metropolis.** Currently, the planning of railway transportation for the Pearl River Delta is confined to Guangdong Province. Guangdong and Hong Kong conduct their own planning independently, and do not develop their railway transportation plans from the perspective of a Pearl River Delta Metropolis. It is necessary and feasible for Guangdong, Hong Kong, and Macao to join hands to plan and develop a world-class rail transport system for the Pearl River Delta Metropolis. A forward-looking and strategic perspective should be taken to reflect the needs arising from economic and social integration in the next 20 to 30 years as well as integration in people's livelihood areas in Guangdong, Hong Kong, and Macao. For example, it would be necessary to fully consider railway connections at the cross boundary ports, connecting the region's five major airports, etc.

- 8.8 Speed up construction of the Hong Kong-Zhuhai-Macao Bridge to link up the two sides of the Pearl River

**14. Start the construction of the Hong Kong-Zhuhai-Macao Bridge as soon as possible.** This study strongly recommends that construction of the Hong Kong-Zhuhai-Macao Bridge be started as soon as possible. The Hong Kong-Zhuhai-Macao Bridge is strategically significant because it links up the two shores of the Pearl River. This will enable Hong Kong to extend its economic territory to the west bank of the Pearl River, helping to correct the imbalance in development on the two shores. Guangdong, Hong Kong, and Macao should seek to resolve the many problems arising from the planning, construction, and management of the Hong Kong-Zhuhai-Macao Bridge in a practical manner. They should strive for early completion of the Bridge, and should not allow the construction to be affected by the many pending problems. The construction of large-scale public infrastructural facilities in the Pearl River Delta Metropolis involves many different levels and areas. Through the joint construction and management of the Hong Kong-Zhuhai-Macao Bridge, the participating bodies would be able to accumulate experience in different aspects of cooperation. This would serve as a good basis for future cooperation. Moreover, judging from the scale of passenger and freight throughput, and the frequency and density of passenger and cargo flows in the Pearl River Delta Metropolis in the next 20 to 30 years, the planned Humen Bridge, the Hong Kong-Zhuhai-Macao Bridge, the cross Pearl River rail transport project being planned, together with the Shenzhen-Zhongshan Bridge or Tunnel being studied may still not be able to fully meet future demand. It is hence possible that more cross Pearl River thoroughfares would be needed in the future. Early preparation for the construction of these thoroughfares is urged.

- 8.9 Guangdong, Hong Kong, and Macao join hands to plan for the development of Zhuhai's Hengqin Island, to drive developments on the Pearl River's west bank.

**15. Guangdong, Hong Kong, and Macao join hands to develop Zhuhai's Hengqin Island.** Zhuhai's Hengqin Island is a rare piece of underdeveloped yet invaluable "virgin land" in the Pearl River Delta Metropolis. The unique characteristics of Macao's industries, the city's insufficient economic drivers, and the natural barrier formed by the Pearl River make it difficult for Hong Kong to extend its economic influence to this area, thus the progress of development for Hengqin Island has been very slow. Therefore, on the one hand, it is necessary to speed up construction of the Hong Kong-Zhuhai-Macao Bridge so that Zhuhai can become more accessible to Hong Kong capital, enterprises and people. On the other hand, Hengqin Island needs to be jointly developed by Guangdong, Hong Kong, and Macao. There is a pressing need to strengthen Hong Kong's engagement in the development, and to attract more Hong Kong consortia to participate. Developing Hengqin Island would result in a favourable situation of the eastern and central parts of the Pearl River Delta driving

development in the west Pearl River Delta Metropolis. The development of Hengqin Island requires a huge amount of capital, high quality planning, and large international projects. It is difficult for Zhuhai City to take on these tasks alone. The Guangdong Provincial Government should take the lead in soliciting collaboration from the Hong Kong and Macao governments and large consortia, conducting forums and activities that attract investors and setting up special purpose organisations to explain in-depth the special advantages of Hengqin Island to international investors. In particular, the international platform of Hong Kong should be fully utilised. Guangdong should not only mobilise different sectors of Hong Kong to actively participate in the development of Hengqin Island, it should also make use of Hong Kong's extensive international networks to attract international investors to help develop the Island into a centre of world-class services and quality living.

**16. Develop a Sea Front Lesiure Belt on the west side of the Pearl River Delta Metropolis.** In the next 20 to 30 years, population in the Pearl River Delta Metropolis will grow to more than 50 million people. The large wealth accumulated by the society and individuals would be reflected in the region's surprisingly high consumption power. As a long-term development strategy, Hengqin Island and the west bank of the Pearl River should focus on developing consumer services such as world-class business and leisure vacation centres. This study recommends Hengqin Island to focus on developing parks for leisure and recreation, business vacation, and ecological industries. They should enter into a complementary relationship with Macao's gaming and MICE industries (mainly the meeting and convention sectors), each leveraging on its own strengths. Hengqin could focus on the development of golf, special dining, and leisure tourism in the style of experiential tourism. The consumer service industry chain of Guangdong, Hong Kong, and Macao should be integrated to produce synergistic effects. With the opening of the Hong Kong-Zhuhai-Macao Bridge, Hong Kong and the west Pearl River Delta will become more closely linked. This would create more market demand and room to develop consumer services on Hengqing Island. The opening of the Hong Kong-Zhuhai-Macao Bridge would lead to the formation of a consumer service industry belt comprising Hong Kong's Disneyland theme park, Macao's gaming tourism, and Hengqin's business and leisure vacation spots. The West Pearl River Delta Sea Front Leisure Belt extending from Hong Kong via Macao to Zhuhai would attract visitors from all corners of the world.

- 8.10 Set up committees to coordinate the collaboration and development of the ports and airports in the Pearl River Delta Region

**17. Form a Pearl River Delta Metropolis Ports Collaboration Committee.**

The construction and development of ports in the Pearl River Delta Metropolis need to be in line with the national strategy. Different from general urban development projects, port facilities are of strategic importance at the national level. They serve a very fundamental role in national economic development and have significant impact on the regional and global allocation of resources. There is competition as well as cooperation among the ports in the Pearl River Delta Metropolis. The idea of forming a Pearl River Delta Metropolis Ports Collaboration Committee is not new, but after a long period of time it is still at the conceptual stage. Given the current status of ports development in the Pearl River Delta Metropolis, and the challenges ahead, the formation of a Ports Collaboration Committee to coordinate ports development has become a pressing need. For this, the Port Authority of New York-New Jersey serves as a good example. Although the Port Authority of New York-New Jersey experienced many twists and turns in its history, a classic model of regional cooperation was eventually developed. The Pearl River Delta Metropolis should learn from the success of the New York-New Jersey ports cooperation model to form a Pearl River Delta Ports Collaboration Committee. Members should work together on major matters such as planning coastline resources for the ports cluster; setting standard charging rates and dividing professional work; sharing of information resources, logistics protection and technical resources; planning a port cargo consolidation and distribution system; developing river-port links and port-rail links; establishing road ports and transshipment hubs, etc.

**18. Form a Pearl River Delta Metropolis Airports Administration Committee.** Each of the five major airports in the Pearl River Delta Metropolis has its own strengths. It is only when these strengths are maintained and developed that the overall competitiveness of airports in the region can be enhanced. Up to now, there is healthy competition among the five airports, producing complementary and synergistic effects. This is evidenced by the growth in turnover for all five major airports in recent years. Even so, there is still a need for the Pearl River Delta Metropolis to form an Airport Administration Committee. The Committee would raise the standard of collaboration and cooperation, and could effectively handle crises and challenges that may emerge in the future. The problems that the Pearl River Delta Metropolis need to face and solve in airports development include: How to coordinate the airports and airspace over the Pearl River Delta Metropolis more effectively; Coordinate communication among the five major airports and the Civil Aviation Administration of China to expand usable air space in the region; Coordinate the division of labour among the five major airports for more effective and complementary developments; Take advantage of likely changes in the Taiwan Strait brought about by the “Three Links” to further boost the business and economic relationship between the Pearl River Delta Metropolis and Taiwan.

The Committee should also plan for transport infrastructure to link up the airports. For example, an inter-airport rail network could connect with other related railways. Among other benefits, this will facilitate cross-flows among the airports. The way the airport administration of the London metropolitan centre works serves as a good example for the formation of the Pearl River Delta Metropolis Airport Administration Committee. At present, the air transport market of the Pearl River Delta Region is still growing quickly. Different levels of demand for air transportation have provided abundant sources of passengers and cargo, enabling individual airports to develop independently. The relatively large room for market development and collaboration may have temporarily shrouded inherent problems and the intensity of competition. If the airports are not coordinated before conflict becomes acute, the cost will be much higher when coordination is required. Therefore, forming the Pearl River Delta Metropolis Airport Administration Committee as soon as possible is a strategic option for future development.

- 8.11 Promote common use of the “Octopus” card in Guangdong, Hong Kong, and Macao to integrate lifestyle and consumer spending

**19. Promote the common use of the “Octopus” card in the Pearl River Delta Metropolis.** As long as boundaries and different customs regimes exist, cross exchanges in the Pearl River Delta Metropolis will not be absolutely free and unrestrained. Hence, there is always room for improvement. From the perspective of people’s livelihood, the common use and wide application of Hong Kong’s “Octopus” card in the Pearl River Delta Metropolis especially in Guangdong should be strongly promoted. Apart from facilitating consumption by Hong Kong people in Guangdong, there are other benefits. At present, the number of Octopus cards issued doubles the population of Hong Kong. It could be concluded that many mainlanders who travel frequently to Hong Kong also hold an Octopus card. To them, the Octopus card can only be used in Hong Kong. Once they return to the Mainland, the card will become dormant. This is not only inconvenient to consumption, but is also a waste of resources. Currently, there are no policies or technical constraints to prevent the Octopus card from being used in the Pearl River Delta Region. The operator of the Octopus cards system is exploring cooperation opportunities with its Shenzhen counterpart, but, the major problems faced in linking the Octopus card with the Shenzhen TransCard include: (1) the large amount of capital involved in changing the systems; (2) bureaucratic bottlenecks; and (3) currency exchange. To solve these problems, a more effective way might be for Hong Kong Octopus Cards Ltd. to work with the Shenzhen TransCard system operator to issue a “Shenzhen Octopus” card through the Shenzhen TransCard system. This is technically feasible. After its success, Hong Kong Octopus Cards Ltd. can cooperate with the system operator of

Guangzhou's "Yangcheng Tong" and issue a "Yangcheng Octopus" card. This will enable the Octopus card to be commonly used in the region. On this basis, the system operators may own shares in each other's companies.

**20. Promote easier immigration procedures for the people of the Pearl River Delta Metropolis.** Out of all the key exchange areas, the cross flow of people is the most critical. Therefore, while it is necessary to strengthen the hardware by constructing infrastructural facilities, there is also a need to improve the software by making it easier and more efficient to cross boundaries. Specifically, the following measures can be adopted: (1) Restrictions on Guangdong residents under the household registration system should be gradually relaxed. Guangdong residents should be allowed to apply locally for visitor and business visas. For ease of administration, the authorities may conduct eligibility vetting for visa applications. (2) Passing through immigration with electronic visas is not only convenient and safe, but also helps to save resources. Therefore, it should become the main way to cross through check-points in China, Hong Kong and Macao. The system could first be pilot-tested in the Pearl River Delta Metropolis and then extended to the entire country. (3) The restrictions on Guangdong residents entering Hong Kong should be gradually relaxed and bi-directional crossings be made easier to change the current one-way flow from Hong Kong to Guangdong. (4) To cater for changes in passenger and vehicle flows and demands at ports of entry, it is necessary to expedite the planning and construction of cross boundary infrastructural facilities. A cross-boundary public transportation system based mainly on rail should be established. Crossing boundaries should be made easier with the provision of a comprehensive transportation system. (5) The cost of crossing boundaries, for both vehicles and people, should be lowered through reductions in toll charges for roads and bridges in the region. At the same time, the efficiency at boundary crossings should be raised through new technologies. Other measures could include accelerating integration of the Metropolis in livelihood areas through supporting services (such as education and medical services), and expanding the coverage of media organisations (such as TV) to share information.

- 8.12 Strengthen planning and environmental protection for sustainable development of the region

**21. Strive to include "Quality Living Circle in the Green Greater Pearl River Delta Region" in the National 12<sup>th</sup> Five-Year Plan for Environmental Protection, and make the Pearl River Delta Metropolis an example in environmental management for China.**

The concept of cooperation on the formation of a “Quality Living Circle in the Green Greater Pearl River Delta” was formally endorsed at the 11<sup>th</sup> Plenary of the Hong Kong-Guangdong Cooperation Joint Conference held in August this year. The Guangdong Provincial Government Environmental Protection Bureau responded to this concept positively and has commissioned the Policy Research Center for Environment and Economy and the Chinese Academy of Environmental Planning of the Ministry of Environmental Protection to conduct research into the topic. Environmental protection cooperation between Guangdong and Hong Kong has become more proactive in conducting monitoring and control and creating quality living environments. A big breakthrough in the philosophy of cooperation came when the two sides moved from “pollution-free production” to “green living”. The “environmental cooperation” between Guangdong and Hong Kong has thus been raised to the level of “ecological cooperation”. This echoes the concept of “ecological civilisation” proposed by the Central Government. This study suggests breakthroughs in five major aspects: (1) Formulating regional environmental cooperation blueprints and ecological development plans; (2) Transforming the concept of regional ecological cooperation from “environmental management” to “green living”, linking up “production” and “lifestyles”; (3) Unifying and agreeing on the region’s environmental standards; (4) Coordinating and managing the region’s polluting industries; and (5) Strengthening promotion of ecological development and “green living”.

Generally speaking, the Pearl River Delta Metropolis should uphold the ideal of “protecting the environment through the course of development, seeking development through environmental protection”, and consider environmental protection as a development strategy as well as an investment strategy that would increase the economic competitiveness of Guangdong and Hong Kong. The Pearl River Delta Region should follow the development direction of the National 12<sup>th</sup> Five-Year Plan for Environmental Protection and strive to make the region’s cooperation on environmental protection into a leading example for China. The Pearl River Delta Region should become a pioneer in realising China’s development goal of “ecological civilisation”. Furthermore, the Guangdong and Hong Kong regions should be developed into a world-class quality living environment, accomplishing dual changes in economic development and lifestyle.

**22. Transfer heavy and chemical industries to the peripheral areas of the Pearl River Delta Metropolis gradually.** The larger ports of the Pearl River Delta Metropolis are now concentrated at the estuary of the Pearl River. The three major ports of Hong Kong, Shenzhen, and Guangzhou, for instance, are situated in the inner circle of the Pearl River Delta Metropolis. From the perspective of environmental protection and

sustainable development, the large volume of logistics and transportation activities at these ports would cause serious pollution problem. A more serious issue is the existence of heavy and chemical industries in the core areas of the Pearl River Delta Metropolis. This would put pressure on the ability of the Pearl River Delta Region's central districts to support transportation, as well as protect people's safety and the environment. The distribution of industry in the Pearl River Delta Metropolis should not be decided with only local interests in mind. Rather, it should be assessed from a more macro perspective, considering the interests of the whole Pearl River Delta Metropolis. In the planning of infrastructural facilities, the important logistics centres should be located in the peripheral areas of the Pearl River Delta Metropolis supported by planning for road networks. In other words, while people flow mainly through the central districts of the Pearl River Delta Metropolis, cargo will flow mainly through the peripheral areas of the region. By separating the flow of people from cargo, space is more effectively used. Hence, port developments should be focused in Zhuhai and Huizhou in the east and west wings of the Pearl River Delta Metropolis with heavy and chemical industrial projects located in the peripheral and coastal areas. This would not only protect the environment but also help in driving development of the peripheral areas. The first choice would be the western part of Zhuhai and the eastern part of Huizhou. In June 2006, a tentative decision was made to locate in Nanshan a large petroleum refinery project jointly owned by Guangdong Province, Sinopec, and Kuwait Petroleum Corporation. The US\$5 billion-investment project has attracted much controversy. Concerns centre on its effects on the region's ecological and social environment and whether it would become a potential hazard to life in the region. While on the one hand, the Pearl River Delta Metropolis is being developed into a region for urban dwelling over the next 20 to 30 years, this project would affect protection of the ecological environmental and the quality of life for the future population of 50 to 60 million people. Whether this project should be implemented should not be decided solely by the city of Guangzhou. It is a major issue for the whole Pearl River Delta Metropolis to resolve together. There is still room for change in the project. Zhuhai's Gaolan Port and Huizhou's Daya Bay Port have the right environment and capability to take up the project. If the various parties involved in the issue are able to reach an agreement on the sharing of benefits such as taxation, this project could be moved out of the core of the Pearl River Delta Metropolis.