



## XXV IASP World Conference 2008

### *Hong Kong / Pearl River Delta - A World Metropole*

#### *Parallel Session 1:*

*Partnerships and collaboration to accelerate integration in the value chain*

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# Hong Kong / Pearl River Delta - A World Metropole

## Executive Summary

Partnership forms and achieves its best with two places complementing each other. As globalization advances in an accelerated pace, nations or cities compete not against but on its strategic alliance to bring out the best in economies of scale. The upsurge and the growing importance of China in the global market has brought Hong Kong into a close strategic alliance with the hinterlands of Pearl River Delta under one country and two systems. This paper will see into the unique strengths of Hong Kong / Pearl River Delta (HK/PRD) in global arena, the multiple facets of co-operation and collaboration on technology development that is happening between HK and other cities in PRD, and by drawing on references on the role of Hong Kong Science & Technology Parks Corporation (HKSTP) in the acceleration of value chain.

**Keywords:** Pearl River Delta (PRD), Hong Kong (HK), Shenzhen, Hong Kong Science & Technology Parks Corporation (HKSTP), Hong Kong Science Park, value chain, technology, R&D, partnership

## Hong Kong and Pearl River Delta - A World Metropole

Metropolitan circles play a dominant role in the global and national economic development, and they include those of New York, London and Japan who are the financial hearts of the world. *PriceWaterhouseCoopers* in 2007 has conducted a ranking of the productivity of major cities around the world.<sup>1</sup> The GDP rankings is calculated based on the purchasing power parity (PPP) method, Tokyo takes the lead as No.1 in world city, New York No.2, Los Angeles No.3 and London No.6.

**Figure 1: The world's richest cities and urban areas in 2005 by PriceWaterhouseCoopers**

Rank	City/Urban area	Country	GDP in US\$B
1	Tokyo	Japan	1191
2	New York	USA	1133
3	Los Angeles	USA	639
4	Chicago	USA	460
5	Paris	France	460
6	London	UK	452

Do HK / PRD have the potentials to develop into a mega city? We can look into the issue from the following perspectives:

<sup>1</sup> "Richest cities and urban areas in 2005" by PriceWaterhouseCoopers

## *Population of international metropolises*

**Figure 2: Metropolitan Area of International Metropolises: Land Area and Population Size<sup>2</sup>**

Metropolitan Circle of International Metropolises	Population	Land Area (sq km)
New York	19.6M	26329
Tokyo	31.56M	13508
London	12.53M	11427
In comparison with		
HK / PRD	31.5M	42800

The metropolises of New York, London and Japan combine their core cities with their neighbouring spirals, like the New York metropolitan area<sup>3</sup> is often referred as the Tri-State Area embracing New York, New Jersey and Connecticut with 23 counties in the metropolitan area, and Tokyo metropolitan area<sup>4</sup> is often referred as One Metropolis and Three Prefectures with 23-ku (Ward) Areas. In terms of fundamental economic development factors including population and land area, a HK / PRD Metropolis has comparable size of developments to those of New York, London and Tokyo.

Time magazine recently coined the term NylonKong to describe New York City, London, and Hong Kong, three global cities linked by a common economic culture, three cities that have become models of globalisation.<sup>5</sup> Hong Kong, as part of Nylonkong and as a model of international city in Mainland, has much to contribute to Mainland China's integration with the world. We shall further see on the strengths of the HK / PRD area and how successful collaboration will thrive with division of functions between the core cities in the area.

### *Unique Strengths of HK / PRD in Global Arena*

Although as one of the major economy in the world, China in its global competitiveness ranks only no.34 whereas Hong Kong has a rank of no.12<sup>6</sup>, a ranking based on its infrastructure, education, financial and business sophistication, innovation, technological readiness etc. As an international city, Hong Kong has comparable economies with leading edges in the above factors conducive to economy growth. And yet, Hong Kong faces with constraints like expansion of land resources, which casts a hindrance to its growth potential. Who and how to collaborate remains the key to sustain the competitiveness of Hong Kong as an international city. Strategising with the development of neighbouring high-growth region Pearl River Delta to a world-class metropole is a win-win way out for both HK and other PRD Mainland cities.

The Pearl River Delta (PRD) is one of China's leading economic regions and a major manufacturing centre. The zone is formed by 9 cities, namely Guangzhou, Shenzhen, Foshan,

<sup>2</sup> "Building a Hong Kong-Shenzhen Metropolis Research Report", Bauhinia Foundation Research Centre, August 2007

<sup>3</sup> New York metropolitan area, Wikipedia.org

<sup>4</sup> Greater Tokyo area, Wikipedia.org

<sup>5</sup> HKSAR Financial Secretary's Speech at the Opening of ING Conference, May 2008

<sup>6</sup> World Economic Forum, "Global Competitiveness Report 2007-2008"

Zhuhai, Jiangmen, Zhongshan, Dongguan, Huizhou and Zhaoqing, together with 2 Special Administrative Regions being Hong Kong and Macau.

Figure 3: The Pearl River Delta Region and Hong Kong



Source: HK Trade Development Council ([www.hktcdc.com/mktprof/china/prd.htm](http://www.hktcdc.com/mktprof/china/prd.htm))

In the “2007 China Urban Competitiveness Study” by Chinese Academy of Social Sciences, HK ranks No.1 and PRD cities like Shenzhen, Guangzhou and Foshan rank respectively No.2, No.5 and No.9<sup>7</sup>. The PRD is one of the most vibrant and high-growth economic regions. In 2006, the PRD already accounted for 30% of China’s total export.<sup>8</sup> In terms of GDP, Hong Kong is no.1 amongst the cities in China and Shenzhen is no.4 with a combined GDP of over US\$260billion in 2006<sup>9</sup>, in collaboration, it shall become a mega city with relatively developed manufacturing and service industries.

How are the leading strengths of HK and PRD complement each other to bring out the best of economies of scale, and how the potentials of HK / PRD can best be synergized to create a world’s metropolis?

### 1) ***Strong Manufacturing Base and Huge Market where CEPA favours HK***

Mainland is both the major source as well as the destination of high-tech exports of HK, mainly electronics-related items. PRD is one of the Mainland’s largest and most sophisticated consumer markets, and itself is a region with the largest production of technology products. Guangdong’s high-tech industry amongst the PRD region occupies a leading position in China. In 2005, the output value of Guangdong’s high-tech industry reached RMB\$1054.1B, accounting for 30% of the provincial total and 31% of the national total.<sup>10</sup> Shenzhen also boasts the strongest technology innovation capability in Guangdong province with a technology workforce of nearly

<sup>7</sup> Seminar and Press Conference on 2007 China Urban Competitiveness Study, Better Hong Kong Foundation

<sup>8</sup> HK Trade Development Council, “Market Profiles on Chinese Cities and Provinces”, December 2007

<sup>9</sup> Hong Kong GDP figure quoted from Trade Development Council and Shenzhen GDP figure quoted from Bureau of Science and Information, Shenzhen, China

<sup>10</sup> “Shenzhen-Hong Kong Technology Industry Cooperation”, HK Trade Development Council, 2007

40,000 accounting for 36% of the provincial total.<sup>11</sup> Shenzhen is also a leading software development base with total output valued at US\$20.9 billion (RMB\$150 billion) in 2005.<sup>12</sup> Hong Kong's industries excel at technological areas like innovation, commercialization, application and industrial engineering with different kinds of technology transfer and co-operation with mainland and foreign companies. Total high-tech exports exceed US\$80Billion a year<sup>13</sup>.

Hong Kong's role as a centre for technological cooperation and integration in the region is set to develop. PRD region provides an important source of technology where companies are eager to explore overseas markets via Hong Kong support services. The Closer Economic Partnership Arrangement (CEPA) launched in 2003, introduces a total of 40 liberalization measures with tariff free treatment for Hong Kong goods and preferential treatment for trade in services.<sup>14</sup> CEPA opens up huge markets for HK goods and services, greatly enhancing the already close economic cooperation and integration between the Mainland and HK. Hong Kong shall continue to ride on China's advantages with its proximity to the mainland's huge industrial market, facilitated by CEPA's opening of mainland's merchandise trade and service markets to HK.

## ***2) Hong Kong's edge as a Gateway to the World***

As a leading metropolitan city in Asia, Hong Kong offers an excellent environment for international trade and assumes an important role in PRD cooperation. HK has been ranked by the Heritage Foundation as the world's freest economy for 13 consecutive years, and also the second most preferred destination for foreign investment in Asia for five consecutive years by the United Nations World Investment Report 2006.<sup>15</sup> The strong conducive business environment stands Hong Kong as an entrepot for merchandise trade and also providing trade supporting services. Hong Kong's leading edges in its stringent IPR protection and enforcement, availability of professional services (e.g. for licensing and patent registration), strong business acumen and international convergence, provision of modern, international banking and financial services has created a clustering effect facilitating Hong Kong's development into an R&D and trading hub for technology products and services.

### **A) Simple and Low Tax Regime**

HK's simple and low tax regime conduce to a business-friendly environment, and is the most cited reason for multinational corporations to set up regional offices.

- The profit taxes are among the lowest in the world, and is the same for foreign and local companies - a low 16.5 percent (starting in 2008-09 fiscal year). There is no capital gains tax in Hong Kong, nor withholding tax on dividends and interest or collection of social security benefits.<sup>16</sup>
- The salaries tax rate is at a maximum rate of 15 percent (starting in fiscal year 2008-09), imposed only on all salary income of individuals derived in or from

<sup>11</sup> "Shenzhen-Hong Kong Technology Industry Cooperation", HK Trade Development Council, 2007

<sup>12</sup> "Shenzhen-Hong Kong Technology Industry Cooperation", HK Trade Development Council, 2007

<sup>13</sup> "Industry Views: Hong Kong the Technology Marketplace", HK Trade Development Council, 1 April, 2006

<sup>14</sup> Mainland and Hong Kong Closer Economic Partnership Agreement, Trade and Industry Department, HKSAR, June 2008

<sup>15</sup> "Hong Kong as a global financial centre", Financial Secretary Mr Henry Tang, May 31, 2007

<sup>16</sup> HKSAR Economic and Trade Office

Hong Kong.<sup>17</sup>

- There is no sales tax or VAT in Hong Kong. The limited tax base, combined with exceptionally low tax rates, makes Hong Kong's tax incidence much lower than in virtually all other developed economies.<sup>18</sup>

## **B) Management and Business Expertise**

Hong Kong ranks among the very best in the world in terms of management experience and the economy owes much to its well-educated and adaptable workforce and a high level of proficiency in English. Labour relations are generally harmonious, and the Government is supportive towards the development of a competitive and knowledge-based workforce with one-third of the education budget on tertiary education, encouraging the inflow of talents with facilitating immigration schemes and university admission schemes, and funding 10 universities and colleges to boost lifelong learning.

## **C) Infrastructure and Logistic Strengths**

For HK/PRD to develop into a worldclass metropole, its capability and competencies in providing worldclass freight infrastructure and logistic strengths are one of the key focuses. There are 5 airports in PRD, namely HK, Macau, Guangzhou, Shenzhen and Zhuhai. Amongst all regions, Hong Kong is Asia's premier international transport and logistics hub, as well as important gateway to China. Achievements as:-

### ***Air Freight Services:-***

- Hong Kong International Airport (HKIA) is the important engine of economic growth for Hong Kong and the Pearl River Delta (PRD) region, as well as a key contributor to Hong Kong's position being a leading aviation and logistics hub in the region. Annual passenger and cargo throughput reached 47.8 million and 3.74 million tonnes in 2007, up 7.5% and 4.5% over 2006, respectively. Air traffic movements of the same period increased 5.4%, to 295,580. As the world's fifth busiest international passenger airport and most active worldwide air cargo operation, HKIA sees nearly 800 aircraft take off and land every day. Over 85 airlines operate at HKIA, linking Hong Kong with more than 150 locations round the world, including some 40 cities on the Mainland.<sup>19</sup>
- As a regional hub for East Asia (with a population of about 2 billion), Hong Kong is connected with most urban centres in East Asia under 5 hours of flight time.<sup>20</sup>
- The China's 11<sup>th</sup> Five-Year Programme set for RMB\$103B to invest in logistics facilities and related infrastructure.<sup>21</sup> Shenzhen Airport also targets to improve its transportation capacity on freight business. In 2005, the Airport has reached a capacity of handling 26.2 million passengers and 230,000 tones of cargo.<sup>22</sup>

<sup>17</sup> HKSAR Economic and Trade Office

<sup>18</sup> HKSAR Economic and Trade Office

<sup>19</sup> Hong Kong International Airport

<sup>20</sup> Guide to Hong Kong Logistics 2002, New Initiative Media Ltd

<sup>21</sup> "Market Profiles on Chinese Cities and Provinces", HK Trade Development Council, Dec 2007

<sup>22</sup> Shenzhen Airport



**Container Port Services:-**

- Hong Kong Port was the world's busiest container port during January to May 2007, following Singapore and Shanghai.<sup>23</sup>
- Hong Kong's port is renowned for its efficiency. All container terminals are privately owned and operated. According to Hong Kong Port - Master Plan 2020 released in 2004, Hong Kong's total container throughput is projected to reach 27.9million TEUs in 2010 and 40.2million TEUs in 2020.<sup>24</sup>
- Ports in PRD played a critical role for transporting manufactured goods abroad. Major ports in PRD include Guangzhou Port, Yantian Port, Shekou Port and Chiwan Port of Shenzhen etc. In 2006, the volume of freight handled in coastal ports in Guangzhou reached 707m tones and container-handling volume hit above 25m TEUs. Shenzhen has the 4th largest container port in the world, and sets itself to be the logistic centre. There are over 2,000 companies that have logistic business in Shenzhen, and 6 logistics parks have been set up.<sup>25</sup>

**D) Banking and Financial Services**

- Hong Kong is one of the most vibrant international financial centres in the region, with around 70 of the world's top 100 banks operating in the city. Hong Kong develops itself as China's international financial centre of global significance, which would further strengthen our financial co-operation with the Mainland by developing a cooperative, complementary and interactive working relationship between the two financial systems.<sup>26</sup> As of 2007, 439 Mainland companies have listed in Hong Kong with total market capitalization of US\$1,544 billion.<sup>27</sup>
- Following China's entrance into WTO and the signing of "Closer Economic Partnership Agreement" with Hong Kong, PRD steps up to welcome foreign bankers and continues to improve its banking system. 22 foreign banks in Guangzhou and 31 in Shenzhen, also with more Hong Kong banks opening up branches in PRD under CEPA.<sup>28</sup>

The above set the pace for HK / PRD collaboration to further ride on scales. HK's position and role amid increasing cross-border technological cooperation worldwide bringing its technology partners to the Chinese market, and the other way round, bringing our mainland partners to the international market is highlighted. Hence, Hong Kong provides both foreign and mainland enterprises with a marketplace for undertaking various kinds of technology businesses which is driven by businesses aiming at higher value-added than keeping an eye on low-costs.

***Hong Kong's action to promote technological advancement***

The Hong Kong Special Administrative Region Government (HKSARG) is committed to create a conducive environment for innovation and technology development, mainly through strengthening technological infrastructure and providing funding support for applied R&D.

<sup>23</sup> Guide to Hong Kong Logistics 2020, New Initiative Media Ltd

<sup>24</sup> Guide to Hong Kong Logistics 2020, New Initiative Media Ltd

<sup>25</sup> "Market Profiles on Chinese Cities and Provinces", HK Trade Development Council, Dec 2007

<sup>26</sup> "Hong Kong as a global financial centre", Financial Secretary Henry Tang, May 31, 2007

<sup>27</sup> "Economic and Trade Information", Trade Development Council of Hong Kong Special Administrative Region

<sup>28</sup> "Market Profiles on Chinese Cities and Provinces", HK Trade Development Council, Dec 2007

***Funding initiatives as:***

- The HKSARG announced at its latest Budget on its setup of a Research Endowment Fund of US\$2.3 billion (HK\$18 billion) to support research projects on a sustainable manner.<sup>29</sup>
- The Small Entrepreneur Research Assistance Programme for pre-venture capital stage financing technology entrepreneurs to start-up, carry out research and development and to conduct market validation. For projects approved for funding, a grant of up to US\$0.26 million (HK \$2 million) will be provided on a dollar for dollar matching basis.
- The HKSARG setup the Innovation and Technology Fund in 1999 to support projects that help develop innovative ideas and technology and industry upgrading. As at January 08, a total of US\$414 million (HK\$3.23 billion) has been provided to support more than 1,080 projects carried out by universities, research institutes and enterprises.<sup>30</sup>
- The Guangdong / Hong Kong Technology Cooperation Funding Scheme has supported over 400 R&D projects with a total of US\$138 million (HK \$1.08 billion) in various technology areas since 2004.<sup>31</sup>

***Infrastructure support includes:***

- In 2000, the Hong Kong Applied Science and Technology Research Institute Company Ltd (ASTRI) was setup to perform industry-related high quality R&D for transfer to industry for commercialization.
- In 2002, Hong Kong Science Park and Cyberport opened offering quality facilities and comprehensive support to technology companies.
- 6 R&D centres hosted by local universities and research institutes that possess considerable research capabilities and foundation have been formed to provide one-stop services to industries, including undertaking industry-oriented applied R&D, promoting technology transfer and commercialization, providing technology and market information and establishing an exchange platform of IP and technology. They include:-
  - i) R&D Centre for Automotive Parts and Accessory Systems;
  - ii) R&D Centre for Logistics and Supply Chain Management;
  - iii) R&D Centre for Nanotechnology and Advanced Materials;
  - iv) R&D Centre for Information and Communications Technologies
  - v) R&D Centre for Textile and Clothing;
  - vi) Hong Kong Jockey Club Institute of Chinese Medicine (located in HK Science Park).

The above overview captures the present infrastructure and support Hong Kong provides as a technology service hub serving the mainland and global markets. Hong Kong has a role to play leading the allied cities to a higher-value of industrial processes and to enhance and sustain technological cooperation in tune.

***HKSTP role in establishing new value chain for selected technology***

Since the late 1970s, manufacturing industry of Hong Kong has gradually moved northwards to the Mainland and OEM (Original Equipment Manufacturing) is the main mode of

<sup>29</sup> "Budget Speech of Financial Secretary", Hong Kong Special Administrative Government, 27 February 2008

<sup>30</sup> Hong Kong Special Administrative Region Government Innovation and Technology Fund ([www.itf.gov.hk](http://www.itf.gov.hk))

<sup>31</sup> Hong Kong Special Administrative Region Government Innovation and Technology Fund ([www.itf.gov.hk](http://www.itf.gov.hk))



operation. For the business sector, Hong Kong manufacturers' gross profit margin has been cut significantly because of increasing raw material prices in the international market and rising production costs including labour costs and utilities costs which results in an estimated increase of 6-12% in the total production costs.<sup>32</sup> In the wake of globalization trend and intensifying competitions from other parts of the Mainland and Asia, PRD region and Hong Kong have to address the issues of upgrading industrial structure and sharpening competitive edge. The manufacturers have moved up the value chain and upgraded the products with value-added features by investing more on R&D and connecting to technology companies for collaboration. Operations in Hong Kong actively provide important support to the production lines in the Mainland, including product design and development, production planning, sales and marketing and quality control.

Hong Kong Science Park is the key science arena in Hong Kong dedicates to a mission of providing quality R&D infrastructure and support facilities for innovation and technology development, full-service business services for start-ups and multinational companies in various key clusters and fostering partnership and collaboration between industry and universities/applied research institutes through consulting, training and research programmes.

With a short history of around 5 years of development, Hong Kong Science Park has achieved a near full occupancy for its Phase 1 developments creating 5000 jobs with 11 buildings, and has also officially open its Phase 2 with a target of full occupancy in 2009 creating another 5000 jobs for Hong Kong's economy. Phase 3 planning is also on board. HKSTP is committed to help Hong Kong companies to create more values through new products, technologies or services which will result in more job opportunities and skills development for local workforce, and thus enabling Hong Kong as a world-class hub for Innovation and Technology.

#### **A) Our Offerings : Quality R&D infrastructure and facilities**

HKSTP contributes in key components of the value chain, ranging from applied research, design to prototyping and marketing. Hong Kong Science Park is well equipped with shared technical support facilities and Intellectual Property Services Centre. With these initiatives, the initial operating costs of the technology companies in the Park can be lowered and the time for launching R&D projects can be shortened. Laboratory facilities include IC Design and Development, Material Analysis, Wireless Communication provide support for companies with various needs of their research development and support electronic products even to the prototype stage.

Hong Kong Science Park has a strategic location being in close proximity to Shenzhen, and facilitated with six rounds of daily shuttles running between the Park and Shenzhen Hi-tech Industrial Park. Transporting to and forth between the two leading parks for each trip will be possible within one hour. This is one of the key supports that facilitated large and small firms in Shenzhen to tap in HKSTP engineering capabilities. Since our inception, more than 300 companies have taken advantage of our leading edge services for approximately 10,000 engineering tasks, and completed for more than 100 R&D projects particularly for the Mainland counterparts with 80% of the projects come from Shenzhen.

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<sup>32</sup> "Cost Escalation and Trends for Export Price Increase - A look at the rising production costs in the PRD", 3 Sept 2007, HKSAR Trade Development Council

**B) Our Offerings : Design - injecting into business**

Design is a key element to move up businesses in the value chain. Design excellence means product / service differentiation, higher brand equity and greater profitability. With the mission to turn Hong Kong into a focal point of design excellence in the region, HK Government set up the DesignSmart Initiative to strengthen the support for design and innovation in industries to help them moving up the value chain. The Initiative includes a Design Support Programme and an InnoCentre, with US\$32M (HK\$250M) investment and has now supported over 120 projects.<sup>33</sup>

The InnoCentre under the umbrella of HKSTP, locates downtown at the heart of Hong Kong as a hub of design and innovation activity, provides a vibrant business community where design ideas and innovation can flourish. Within the InnoCentre, there is a design incubation programme to nurture design entrepreneurs, providing supportive environment for young creators to unleash their potentials giving thrust to business value chain.

**C) Our Offerings : An Incubator of Startup Companies**

Small and medium enterprises (SMEs) shaped an important portion over Hong Kong's economy. There are about 276,000 SMEs in Hong Kong, accounting for 98% of all business establishments. HKSTP runs an incubation programme to nurture the growth of startup companies in technology and design industries.

The Incubation Programme provides a state of art environment for start-up technology company, with ready-to-use Grade A office space and a comprehensive aid package. An established programme of over 15 years, 171 companies have successfully graduated from the programme and around 146 are still in business, a success rate of over 80%.

Worldwide acclaims of HKSTP Incubation Programme included the award of National Business Incubation Association (NBIA) Soft Landings, first of such honour accorded to an Asian institution (other than Australia). HKSTP Incubation Programme was selected because of its slate of business services for non-domestic firms and its demonstrated success at helping firms to enter the Hong Kong market.

**D) Our Offerings: Worldwide network of talents**

Ample supply of talents is always the key concern of any companies to setup their business operations. HKSTP provides all round support with our strategic networks built with Universities spanning across different continents to attract talents from all around the Globe. Activities include annual student placement recruitment for the grow of future talents, technical and management training programmes, web-servicing talent recruitment platform with links to global university, and business networking and matching.

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<sup>33</sup> Hong Kong Special Administration Region DesignSmart Initiative

**Figure 4: HKSTP in close alliance with Mainland and overseas universities**

Local University	Mainland University	Overseas University
<ul style="list-style-type: none"> <li>• The University of Hong Kong</li> <li>• The Chinese University of Hong Kong</li> <li>• Hong Kong University of Science and Technology</li> <li>• Hong Kong Baptist University</li> <li>• Hong Kong Polytechnic University</li> <li>• City University of Hong Kong</li> </ul>	<ul style="list-style-type: none"> <li>• Tsinghua University</li> <li>• Xidian University</li> <li>• Zhejiang University</li> <li>• HeFei University of Technology</li> <li>• Harbin Institute of Technology</li> <li>• South China University of Technology South East University</li> <li>• Beijing Private University Network</li> </ul>	<p>USA &amp; Canada</p> <ul style="list-style-type: none"> <li>• Georgia Institute of Technology</li> <li>• UC Berkeley</li> <li>• Simon Fraser University</li> <li>• Syracuse University</li> <li>• University of Calgary</li> <li>• University of Toronto</li> <li>• The University of Western Ontario</li> </ul> <p>Europe (UK and France)</p> <ul style="list-style-type: none"> <li>• University of London</li> <li>• University of Cambridge</li> <li>• University of Essex</li> <li>• University of Liverpool</li> <li>• Université Paris 8</li> <li>• Lycée University</li> </ul>

Our growing key partners network in the world also helps to attract the best scholars, business technologists, professional and entrepreneurs to the Park. Alliances have been reached with the Government of Alberta, Canada to expedite the flow of business and technology not only between Hong Kong and Canada, but also Canada and China as Hong Kong serves as at gateway into the vast and fast-growing China market. Also include the Oresund Science Region, an leading European strategic partner spanning Sweden and Denmark which resulted in a series of collaborative initiatives including a Softlanding Programme to expedite technology transfer and collaboration among high tech companies and R&D centres in the OSR, HK and PRD and launching the first consultancy firm offering intellectual capital services in both Hong Kong and the Pearl River Delta. Not least to mention is our strategic alliance with Coventry University Enterprises (CUE) in the United Kingdom to launch a Soft Landing Zones programme enabling technology companies in Hong Kong and the United Kingdom to expedite the flow of knowledge, technologies and business between Hong Kong and the United Kingdom. The Programme will act as a catalyst to forge closer ties between technology firms in the UK, Hong Kong and China and will be an important enabler of success, expediting business and technology exchanges as well as setting up operations in those regions. The UK Company ElectroBox, via the programme, has successfully met with potential partnering companies in the Park for their MP technology in game engines, wireless connectivity etc.

### **Companies tapping on China opportunities via Hong Kong Science Park**

HKSTP doesn't only provide a ground where member companies can thrive on with the well built success of Hong Kong, but right away leveraging Shenzhen and China resources for their comprehensive local and global strategy.

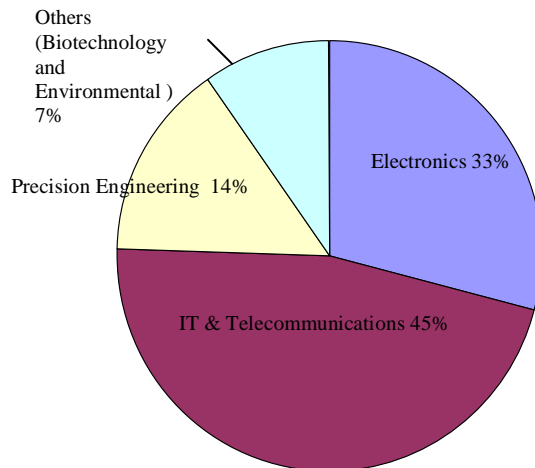
**Figure 5: HKSTP Tenant Companies with operations in PRC and Guangdong region**

	HKSTP Tenant Companies	Listed Company	Non-listed Company
Number:	135	37	98
With operations in PRC	67 (50%)	27 (73%)	40 (41%)
With operations in Guangdong province	42 (31%)	13 (35%)	29 (30%)

Putting aside the small start-up companies, 50% of the 135 tenant companies in Hong Kong Science Park have their business operations in Mainland China, of which 31% of them have extended via HK Science Park to Guangdong province, like the establishment of R&D centres, production lines and sales office.

Amongst the tenant companies, 37 of them are publicly-listed in US or Hong Kong. Over 70% of these sizeable companies setup their R&D / production / sales offices in Mainland China especially Guangdong province. On a broader picture, China provides and synergizes with Hong Kong not only for its low labour cost which will soon lose its competitiveness to other places like Vietnam. Sizeable companies are now making significant investment on R&D, upgrading product design to move up the value chain and to sustain their competitiveness in the world's market.

**Figure 6: Distribution by Industry Clusters of HKSTP Tenant Companies which have operations in Guangdong Province**



Majority of HKSTP member companies with operations in Guangdong province focused on the IT/telecommunications and electronics industries, also the 2 major clusters of developments in HKSTP. This also represents a strategic tide-in with the pillar industries of PRD.

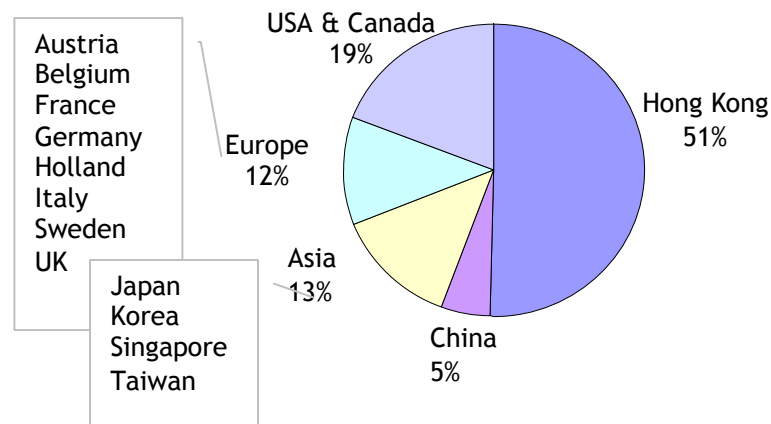
***HKSTP solid accomplishments***

HKSTP achievements see in our standing as a hub for the science and technology developments of Hong Kong, and also in support of our neighbouring PRD regions. Over a short history, a number of milestone achievements have been recorded with encouraging success:

- Recruited 218 companies (of which 30% are incubatees) for the Science Park - 6,500 employees with over 4,000 employees working on R&D. Turnover of companies at Science Parks, HK\$77 billions, 48% of companies from overseas.
- Since 1992, 177 graduates of incubation programme, 146 still in business. In the last 5 years, it has attracted HK\$473 millions from Angel and Venture Capital.
- Establish 143(158 factories) companies to the 3 Industrial Estates. These companies employ 24,500 people. Nearly all the major broadcasters, publishers, food processors and traditional Chinese medicine pharmaceutical companies from Hong Kong are located in the Industrial Estates.
- A cell phone display IC company, ranked 23 in 2006 Deloitte Technology Fast 50 China, headquarters in HKSTP.
- The largest independent manufacturer of magnetic recording heads for hard disk drives, headquarters in HKSTP.
- 104 patents filed; 44 trademarks / tradename and 9 designs registered by the incubatees.
- Successfully provide IP 'hardening' service - transform IP providers' source code (soft) to IP users' design models (hardened).
- Obtained ISO 27001 - international standards to protect information (customer data). As a result, HKSTP is the only technology centre in Asia for IBM microelectronics foundry services down to 65nm.

**Hong Kong Science Park as Springboard for Business Success**

In a world's economy that is changing faster than ever before, one can never stand still. Hong Kong Science and Technology Parks continues to respond to the changing economic and development needs. Taking advantage of Hong Kong's leading strengths, the Parks serves and positions as a major springboard for overseas firms to enter into China markets and vice versa. Current local and international mix of tenant companies with around 50% overseas or Mainland companies landing their business development base with us, and marks Hong Kong Science Park windowing opportunities both to the world and to Mainland.

**Figure 7: HKSTP Tenant Company Profile with Country of Origins (Total: 135 companies)**

In a vision to put Hong Kong on the map as a world-class hub for Innovation and Technology, HKSTP will continue to help Hong Kong companies to create more values through new products, technologies or services which will result in more job opportunities and skills development for local workforce.

### Our Establishment of formal cooperation with Shenzhen

Amongst PRD cities, Hong Kong and Shenzhen have both recently been named as the most and 2<sup>nd</sup> most competitive cities in China, beating Shanghai and Beijing. Hong Kong has consecutively scored the top position six years running since the annual research conducted by the Chinese Academy of Social Sciences on China Urban Competitiveness.<sup>34</sup> Further to China's 11<sup>th</sup> Five-Year Programme, proactive efforts have been made by Shenzhen and Hong Kong to strengthen the co-operation in areas of infrastructure construction, environmental protection, ports and airports, checkpoints and the closed area along the boundary as well as exchanges among cultural, educational and technology personnel. Both sides of the Government see a desire to enhance technology cooperation between the two lands. The then Shenzhen Deputy Mayor Liu Yingli proposed that the advantages of the two cities in such areas as technology talent, education and free flow of information should be leveraged on to give play to technology innovation.

On technology front, the two cities are actively co-operating. Initiatives over the years as follows:

- **2004:** Shenzhen Municipal Technology Bureau and Hong Kong Innovation and Technology Commission developed cooperation framework agreement to promote interactive cooperation, such as academic exchange and commercialization of technology deliverables.
- **2006:** Hong Kong Science and Technology Parks, Shenzhen High-Tech Industrial Park and Xian High-Tech Industrial Park signed a Memorandum of Understanding on technological cooperation.

<sup>34</sup> Seminar and Press Conference of 2007 China Urban Competitiveness Study (Hong Kong) by Better Hong Kong Foundation



- 2006: Shenzhen Municipal Government, Peking University and the Hong Kong University of Science and Technology joined hands to develop the Shenzhen-Hong Kong Development Research Institute.
- 2007: Shenzhen-Hong Kong Innovation Circle Co-operation Agreement signed by the governments of Shenzhen and Hong Kong covering the promotion of expertise and information exchange, joint R&D projects and co-operation between science and technology parks. Further on this initiative, the Science Parks in both lands have announced in December 2007 on its signing of a “Memorandum on Co-operation for the Shenzhen / Hong Kong Innovative Circle Interactive Base”. The agreement provides for reservation of R&D and office areas in Shenzhen High-tech Industrial Park for the Hong Kong side, as well as earmarking spaces in Hong Kong Science Park for the Shenzhen side.
- 2008: The first major technology co-operation project under the “Shenzhen Hong Kong Innovative Circle” has also been kickoff in May 2008 to establish a Solar Energy Research and Industrial Platform in collaboration with DuPont. HKSTP will take the lead to establish a Solar Energy R&D Support Centre at HK Science Park to assist the development of solar energy and related technologies in HK and the Pearl River Delta Region. DuPont will join the centre as the first anchor tenant by locating its Global Thin Film Photovoltaic Business/ R&D Centre in the Hong Kong Science Park. At the same time, the Shenzhen Municipal Government will collaborate with Hong Kong to provide land and other facilities to support the downstream development and manufacturing of solar energy products.<sup>35</sup>

The strategic alliance and amalgamation of Hong Kong and Shenzhen shall bring synergistic effects which drive R&D and its industrial applications. The establishment of Hong Kong-Shenzhen Innovative Circle provides an important cornerstone. HKSTP being one of the many high agenda plays a role in the collaboration of Hong Kong and Shenzhen developments particularly in the technology and innovation industry. In the process of innovation development, Hong Kong shall facilitate to increase the technology content and proprietary intellectual property rights of the products, and thus boost up international competitiveness and driving the manufacturing industry from “processed in Shenzhen” to “made/developed in Shenzhen”.

### ***PRD in evolves, the Way Forward***

A mega-city HK/ PRD could surely take on an important position in the global community. PRD has strong capacities in technological innovation with city like Shenzhen topping the inventions and patents of the country. To fully develop an innovative economy, alliance with Hong Kong is the best synergy which provides her with unique advantages under Hong Kong’s one country, two systems framework. The Mainland and HKSAR Government see the strategic alliances between both lands are the crucial keys to tomorrow’s success. Cities in the PRD are interconnected by highways and railways, and by 2020, the “Plan of High Speed Express Ways Network Linking Cities of the PRD” which the objective of “metropolitan region within one hour drive” will further be achieved.<sup>36</sup>

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<sup>35</sup> “Hong Kong and Shenzhen collaborate with DuPont to develop solar energy technologies”, Hong Kong Science and Technology Parks News

<sup>36</sup> “Market Profiles on Chinese Cities and Provinces”, HK Trade Development Council, 12.2007

The infrastructure and logistic support on the mark include:-

Hong Kong and Shenzhen Airport Link

- HK and Shenzhen Government have jointly set up a task force in 2004 on airport cooperation, include building a high-speed rail to link Hong Kong and Shenzhen airports<sup>37</sup> with an aim to maximize synergies amongst the 2 airports. To sustain the growth momentum in passenger and cargo, Hong Kong International Airport (HKIA) strategies to reach out to home market which comprises Hong Kong and PRD. A multi-modal transportation network between the PRD and the Airport, for example, SkyPier, a cross-boundary ferry service enabling PRD passengers to travel via HKIA without going through the immigration and customs formalities to their destinations worldwide in a seamless and comfortable manner.<sup>38</sup>

Hong Kong - Zhuhai - Macao Bridge

- HK-Zhuhai-Macao Bridge is expected to meet the demand of passenger and freight land transport among HK, the Mainland (particularly the region of Pearl River West) and Macao, to establish a new land transport link between the east and west coasts of the Pearl River; and to enhance the economic and sustainable development in the three places.<sup>39</sup>

Hong Kong - Guangzhou High Speed Railway

- Guangzhou-Shenzhen-HK Express Rail Link will reinforce the city's position as the transport hub in southern China and integrate Hong Kong into the country's rapidly growing express rail network. Hong Kong commuters will be able to travel express to several mainland cities, reaching Shanghai in eight hours and Beijing in 10 in the future, as compared with over 20 hours now.<sup>40</sup>

Hong Kong is well poised to provide neighbouring PRD region with needed business and service platforms, especially in our sound trading and financial services and our robust financial and legal systems. Opening up the world's opportunity is the ultimate mission for the alliance of PRD and Hong Kong. With the development of PRD in a breathtaking speed, the opportunities in this part of the world is literally unlimited.

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<sup>37</sup> "Headway in plan to link Shenzhen and SAR airports", The Standard, 18 January 2008

<sup>38</sup> Hong Kong International Airport ([www.hongkongairport.com](http://www.hongkongairport.com))

<sup>39</sup> "Hong Kong-Zhuhai-Macao Bridge", Highway Department, HKSAR Government

<sup>40</sup> "Express Rail Link wins ExCo's nod", news.gov.hk, Hong Kong's Information Services Department, HKSAR Government