



# Sustainable Development Study For The Hong Kong Logistics Industry

A Study initiated by SD Advocates



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 **BMT** Asia Pacific

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## Executive Summary

Often presumed to be a simple business of physical freight movement, a logistics cluster actually encompasses a much wider scope of high-end and sophisticated service areas. Modern logistics focuses on **management of cargo and associated finance and information flows** where innovative services, technologies and concepts are widely developed and applied.

In 2012, the logistics cluster generated a direct economic contribution equivalent to 3.3% of Hong Kong GDP (greater than the sum of retail, accommodation and F&B services) and provides essential support to the Trading industry. Combined with the indirect and induced economic contribution, **the total economic contribution of the logistics cluster is equivalent to 5.3% of Hong Kong's 2012 GDP. The trading and logistics industries together contributed 24.6% of Hong Kong's 2012 GDP.**

A series of interviews with key stakeholders reveal the confidence in the industry to uphold the competitiveness of Hong Kong's logistics sector. These stakeholders include airlines, shipping lines, port operators, warehousing & storage service providers, freight forwarders, logistics associations, and government entities.

- Despite Hong Kong's clear advantages in geographic location and free port status, its logistics cluster encounters bottlenecks of increasing operational costs and sluggish infrastructure development. In summary, the logistics cluster in Hong Kong faces the following challenges:
  - > Capacity bottleneck due to the pause of major infrastructure investments in the last decade;
  - > Increased cost pressure as the price of real estate continues to surge and lack of dedicated land for logistics use;
  - > Labour shortage of both low-skilled workers and high-skilled professionals;
  - > Insufficient policy support for the logistics cluster; and
  - > Uprising competitors such as Singapore, Shenzhen and Shanghai.

## Recommendation

In response to the challenges identified above, the logistics cluster in Hong Kong needs strong support from the public sector to drive its growth and improve its competitiveness. The Study, having analysed the industry's competitive advantages and growth opportunities, recommends the following for the SAR Government to pursue.

- Enhance policy commitment for the sustainable development and competitive growth of the logistics industry by clearly defining the policy responsibilities at the bureau level of the Government;
  - > Provide/set aside dedicated land for logistics purposes in order to enhance competitiveness and increase efficiency;
  - > Proactively promote the logistics industries and related value added services for manpower development;
  - > Encourage logistics training and to foster R&D in technology advancement; and
  - > Facilitate collaboration with the PRD logistics industry.
- Reference Hong Kong Science and Technology Parks Corporation to apply a similar business model for the development of logistics infrastructure/facility:
  - > Revive the Logistics Park plan and establish a management authority/corporation to balance the interests of the Government, principals and SMEs in the industry;
  - > Offer one off initial supports;
  - > Set aside land for principals to build their facilities;
  - > Provide standard facilities with long term lease for SMEs; and
  - > Offer a single-window platform to streamline necessary processes and facilitate paperless customs documentation.
- Investigate the feasibility of relocating the container port as a method to improve efficiency.
- Construct the third runway at Hong Kong International Airport to maintain its leading position as the aviation hub of the region.

## 1 Introduction

### 1.1 Study Objective

As one of the Four Pillar Industries in Hong Kong, the Logistics Cluster forms the backbone of Hong Kong's future position in logistics related sectors; therefore it is necessary to create a clear understanding of service areas covered by the Hong Kong logistics industry.

The Study aims to provide convincing grounds for the argument that *the logistics industry of Hong Kong will continue to be an important pillar of the territory's economy, as long as the industry is given the opportunity to capitalize on its unique strengths and position.*

### 1.2 Report Structure

This report contains the following sections:

- a) Logistics cluster analysis – identify the definition of modern logistics, and analyse the logistics industries;
- b) Economic contributions of the logistics cluster – measure the economic importance of the Hong Kong logistics cluster;
- c) Policy review and infrastructure development – review of logistics infrastructure development and policies in recent years;
- d) Competitiveness assessment – benchmarking studies and competitiveness comparisons;
- e) Stakeholders' feedback – summarise the bottlenecks of logistics development based on interviews with industry stakeholders;
- f) The way forward – analyse expectations for future logistics development with regards to land use, manpower and regulatory issues.

All of the above are to be supported by solid research data and industry interviews.

## 2 Logistics Cluster Analysis

### 2.1 Define Hong Kong Logistics Cluster

Many presume the logistics cluster in Hong Kong provides services which are limited to cargo freight movement, such as terminal handling, shipping, trucking, and barging services.

In reality, the logistics cluster in Hong Kong has evolved over the past decades to offer a wide and complex scope of services, including high end and sophisticated services such as cargo chain management, warehousing and storage, cargo value added services, and other supporting services.

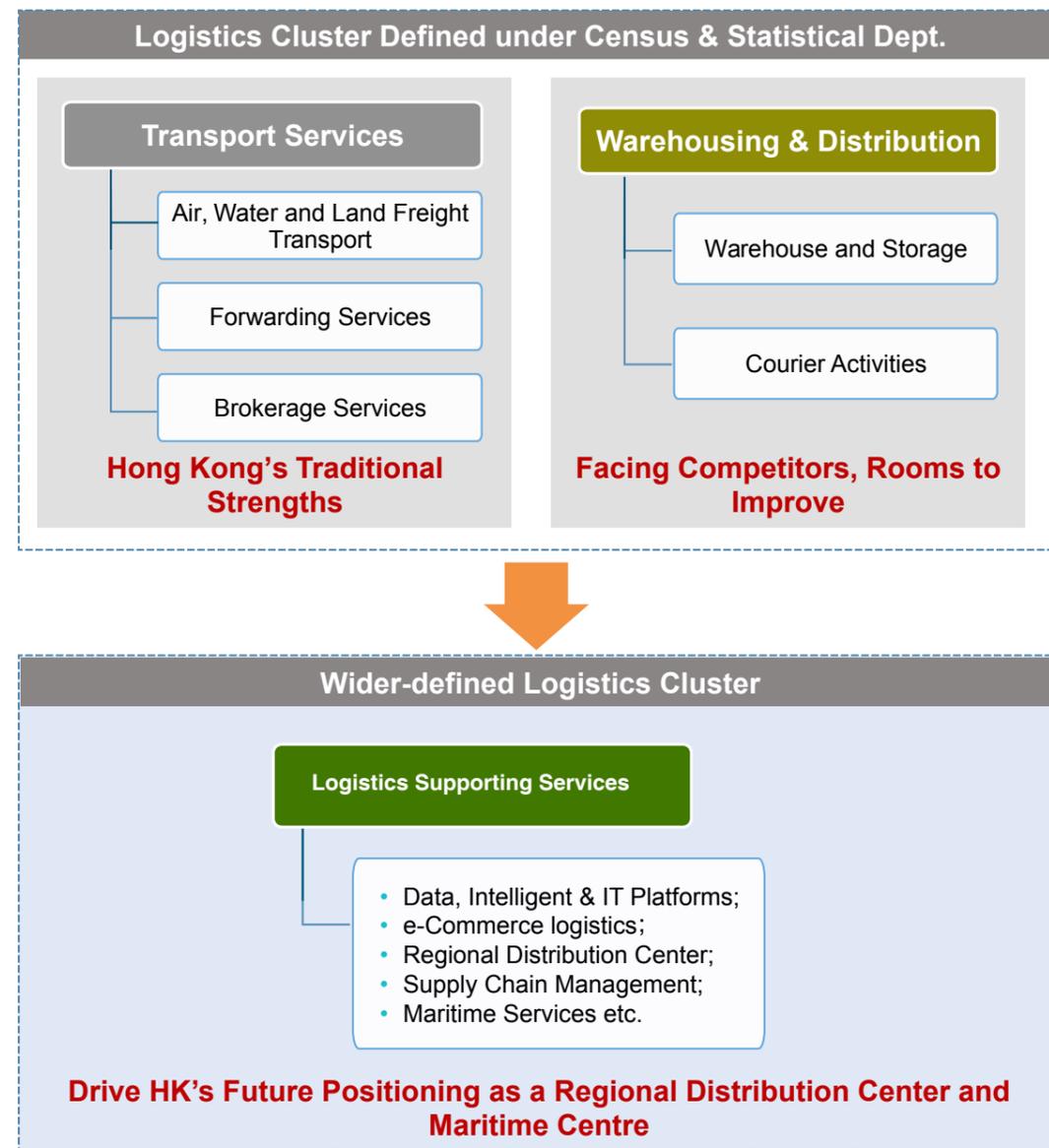
*Modern logistics concentrate on the management of information flows in the logistics chain and provision of value-added services for cargo where innovative skills, technology and concepts have been developed and applied.*

A refined definition of logistics is pivotal to the understanding of the service coverage, current status and development path of the Hong Kong logistics cluster.

In this Study, logistics industries are classified into three groups as shown in Figure 2.1. They are namely:

- Transport Services, which Hong Kong has traditionally performed well in;
- Warehousing & Distribution, where Hong Kong is currently being challenged by new comers; and
- Logistics Supporting Services, as a part of the broadly defined logistics cluster is expected to be where Hong Kong should develop or position in the future.

Figure 2.1 Logistics Cluster Definition



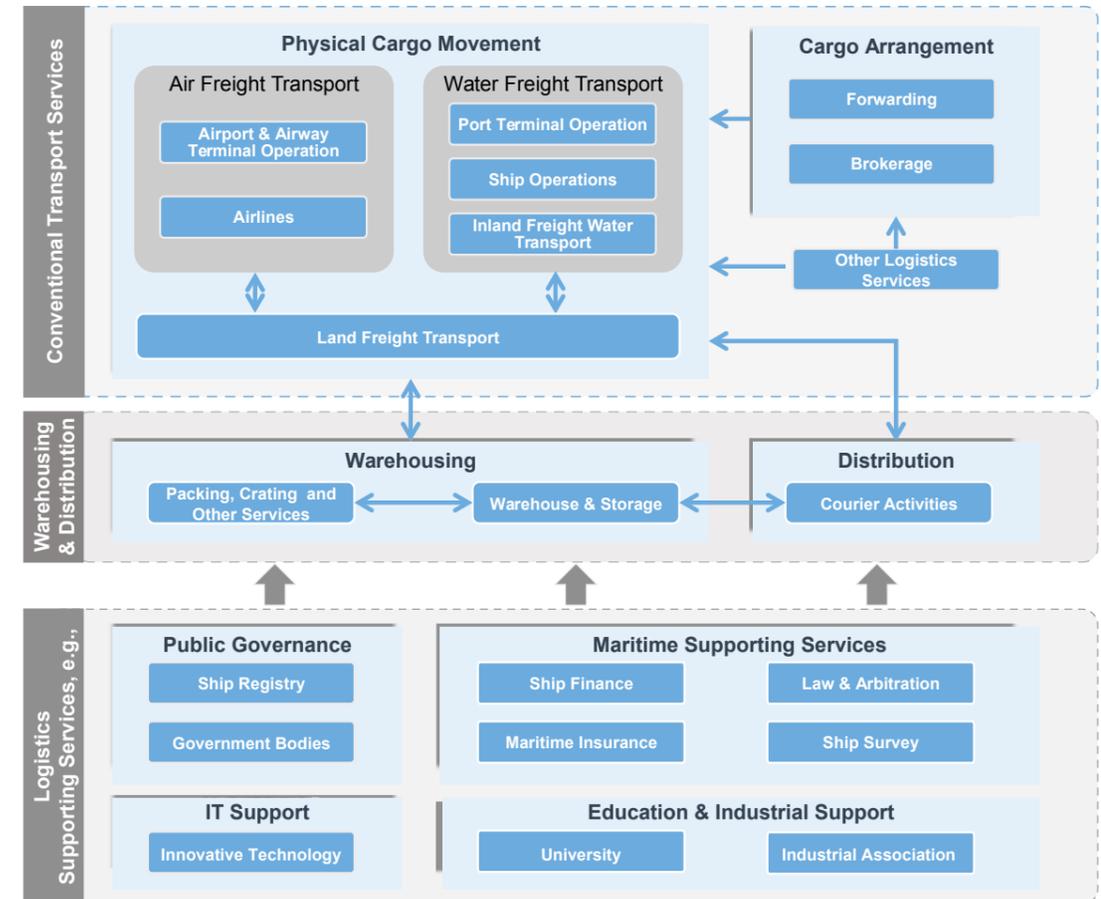
Source: Study Team

## 2.2 Linkage of Hong Kong Logistics Cluster

Based on the expanded definition of Logistics, we determine that different logistics industries are closely linked as a logistics cluster. Many logistics functions integrate with other economic activities such as:

- Sourcing and procurement;
- Production planning and scheduling;
- Packaging and assembly; and
- Customs services.

Figure 2.2 Hong Kong Logistics Cluster and its Linkages



Source: Study Team

Innovative technology has been widely applied to enhance the logistics management functions in Hong Kong, especially for transportation and warehousing services.

## 2.3 Conventional Transport Services

Logistics activities, based on the definition by the Census and Statistical Department (C&SD), include freight transport, freight forwarding, storage, postal and courier services. In 2012, the Hong Kong logistics industries generated a total value added of HKD 67,100 million (3.3% of total GDP) and 183,200 jobs (5.0% of total employment).

### 2.3.1 Air Freight Transport

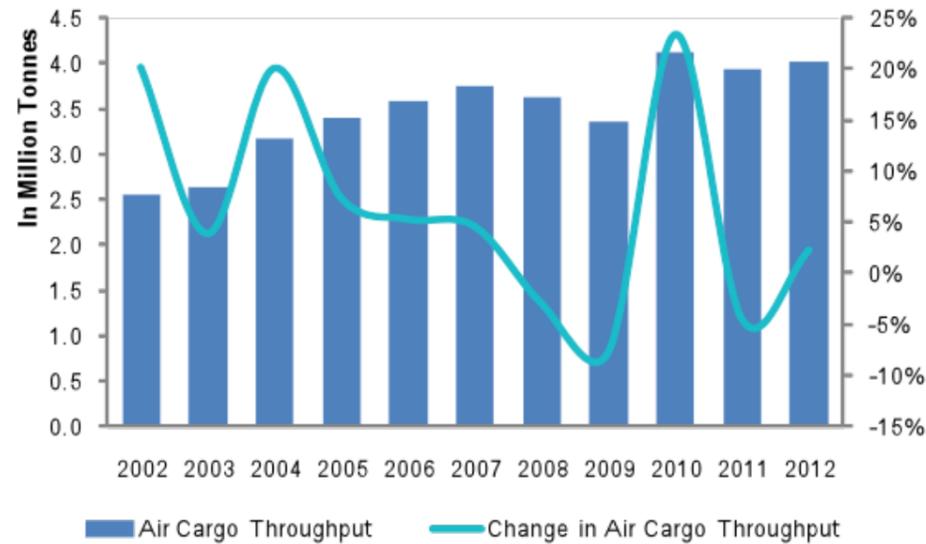
#### Airport and Airway Terminal Operations

Hong Kong's airport is at the core of aviation transport. Located in Chek Lap Kok, Hong Kong International Airport (HKIA) has been ranked the busiest airport for international air cargo since 1996. In 2013, HKIA handled 4.12 million tonnes of freight, with an average annual growth of 6% from 2002 to 2013. Its throughput account for 37%, or HK\$2,853 billion, of Hong Kong's total external trade in 2013.

According to an article published by HKTDC<sup>1</sup>, air transport has become more important to Hong Kong trade over the years. Air transport contributes 35% and 39% to Hong Kong's total exports and imports for the first five months of 2013. In 1980, only 26% of exports and 19% of imports were done through air transport.

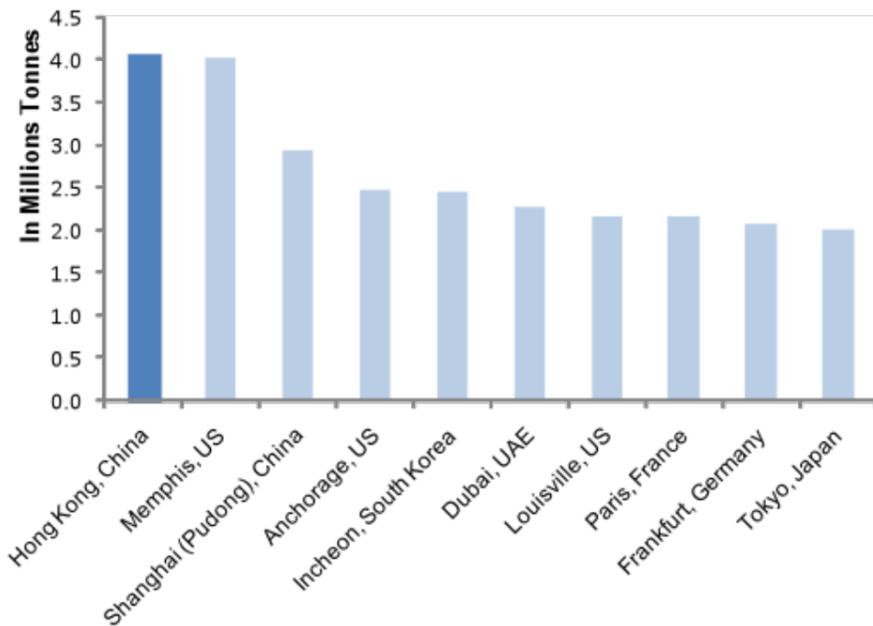
Due to the time sensitive nature of air freight transport, it is essential to maintain effective and immediate communication among different operation units. Today, HKIA is one of the most important aviation centres for the Chinese Mainland, providing efficient and reliable air cargo services with high standards of safety and security.

**Figure 2.3 Hong Kong Air Cargo Throughput**



Source: Civil Aviation Department

**Figure 2.4 Top Ten World's Busiest Airports by Cargo Traffic, 2012**



Source: Airport Council International

<sup>1</sup> "Air Transport Industry in Hong Kong", published by HKTDC dated 19 July 2013.

At the moment, there are three dedicated air cargo terminals at Hong Kong International Airport, namely Hong Kong Air Cargo Terminal (HACTL), Asia Airfreight Terminal (AAT) and Cathay Pacific Cargo Terminal (CPCT). CPCT commenced full operations in October 2013. The three cargo terminals boast a total handling capacity of 7.4 million tonnes per year. In addition to the major cargo terminals, DHL and Hong Kong Post also established the DHL Central Asia Hub and Air Mail Centre at HKIA to handle their cargo/mail.

To strengthen Hong Kong's position as an aviation hub in Asia, a proposal to develop the 3rd Runway was initiated in the Master Plan of Hong Kong Airport.

**Figure 2.5 Airfreight Facilities around HKIA**



Source: HKIA Master Plan 2030

In the airport area, there are secondary logistics facilities which provide value added logistics services to cargo owners, including the Airport Freight Forwarding Centre (AFFC) and the Tradeport Logistics Centre.

### Airlines

Airlines provide air transport services for passengers and freight. They lease or own their aircrafts.

There are more than 100 international airlines providing over 1,000 scheduled passenger and all-cargo flights each day between Hong Kong and 180 destinations worldwide. There is on average 590 non-scheduled passenger and cargo flights each week.

Cathay Pacific Airways, Dragonair, Air Hong Kong, Hong Kong Airlines and Hong Kong Express Airways are examples of airlines which use HKIA as their primary base.

### 2.3.2 Water Freight Transport

Water freight transport activity in Hong Kong is vibrant. It covers key industries including port terminal operations, ship operations and inland freight water transport.

As an international shipping centre, Hong Kong provides not only efficient container handling services within its port area, but also a growing amount of value-added and supporting services.

#### Port Terminal Operations

Port terminal operations cover the activities associated with the operation of container terminal, marine cargo terminal, mid-stream operation and container back-up activities.

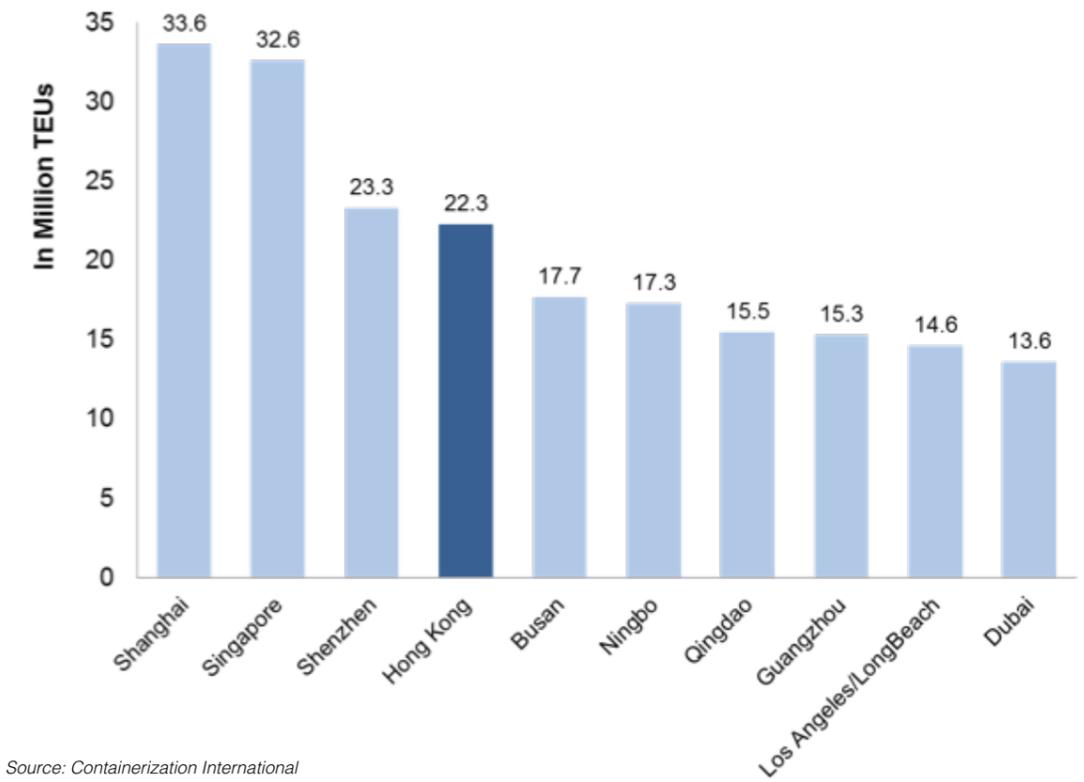
Port terminal operators are responsible for unloading and loading of containerised and non-containerised cargoes at port and by barge. In Hong Kong, there are 9 container terminals in Kwai Tsing Container Terminal (KTCT), boasting 24 berths. In addition to KTCT, there is the River Trade Terminal (RTT) in Tuen Mun, handling Pearl River Delta (PRD) related shipments.

In 2012, Hong Kong handled 23.1 million TEUs<sup>2</sup>, making it one of the world's busiest container ports. Over 75% of the total throughput was handled at KTCT, while the rest was handled in mid-stream and other wharves.

Additionally, the industry includes companies which provide container back-up activities, such as container freight stations (CFS), container yards and container leasing activities.

<sup>2</sup>TEUs refers to twenty-foot equivalent units is an inexact unit of cargo capacity often used to describe the capacity of container ships and container terminals. It is based on the volume of a 20-foot-long intermodal container, a standard-sized metal box which can be easily transferred between different modes of transportation, such as ships, trains and trucks

Figure 2.6 Top 10 Container Terminals in Cargo Throughput, 2013



Source: Containerization International

#### Ship Operations

Ship operations refer to owning and operating of sea-going vessels, shipping companies, ship agents and managers. Ship owners lease vessels to operators of ships who carry cargo from port to port.

Ship agents represent their clients' (typically ship owners') interests at a port of call. They act, negotiate and pay for port services on behalf of the ship-owners. They also take care of the paperwork related to cargoes and insure the delivery to the beneficiaries.

Ship managers deal with the process of managing ships for the owners, including the trading of assets, compliance with international regulations and supplying crew.

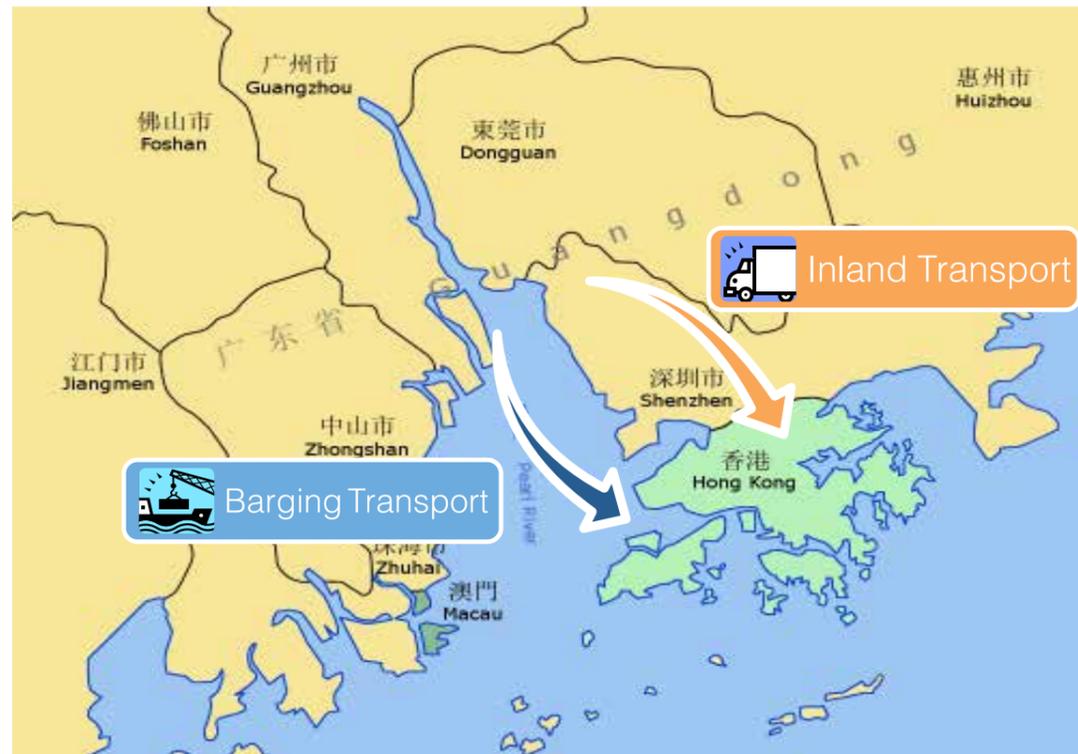
Hong Kong has a long history of shipping. Many ship owners and operators have established their business locally. Though other shipping centres (like Singapore and Shanghai) emerge, Hong Kong is still regarded as one of the key locations for global ship owning and operating activities. As of June 30, 2012, the gross tonnage of ships registered in Hong Kong reached 78.9 million tonnes, making the Hong Kong Shipping Register the third largest in the world.

#### Inland Freight Water Transport

This industry concerns cargo transportation using lighters, tugboats and inland cargo vessels through rivers and inland waterways.

Inland freight water transport to other Chinese ports links Hong Kong to its hinterland and is a less costly alternative to cross border road transportation.

Figure 2.7 Two Ways of Freight Transported to Hong Kong



Source: Study Team

2.3.3 Land Freight Transport

The rapid growth of mainland transport infrastructure in the past decades has greatly changed the overall picture of export transportation in PRD region. For shippers in PRD, shipping through Hong Kong Port used to be the dominant option. With improved ports, roads and railways in PRD especially Shenzhen, logistics costs have come down substantially. As a result, many shippers choose barges over road transportation to take advantage of the lower costs. However, the lack of barge berthing facilities and feeder congestion is harming Hong Kong Port's efficiency. Improving the quality of barge container services will be crucial for Hong Kong Port.

Figure 2.8 Major Land Infrastructure and Related Facilities



Source: BMT

2.3.4 Cargo Arrangement

Cargo Forwarding Services

Cargo Forwarding Services consist of air, sea and land cargo forwarding companies that organize shipments from the manufacturers or producers to customers or final points of distribution.

The industry responds to customers' needs by providing value-added services and total logistics solutions. Major freight forwarders offer a full range of transportation and logistics services, including consolidation for overseas buyers, sorting, distribution, customs clearance, shipment tracking, EDI with clients and carriers, etc.

Shipbrokers

Shipbrokers act as intermediaries between ship owners and charterers or between buyers and sellers of ships. They take care of contractual issues and negotiate on behalf of the buyers and sellers on prices and terms.

Shipbrokers monitor markets closely to understand market trends, vessel values, and estimate charter earnings. Some of them publish market reports.

Ship broking is a highly skilful business and there were only a few brokers based in Hong Kong during the mid-1990s. They served the markets in Greater China and most parts of North Asia with their in-depth knowledge and exclusive information. Today, Hong Kong faces competition in the business from other emerging maritime centre in Asia. However, with highly skilled local and expatriate shipbrokers, Hong Kong remains an important ship broking centre in Asia.

## 2.4 Warehousing and Distribution Services

Logistics activities, based on the definition by the Census and Statistical Department (C&SD), also include warehousing, storage and distribution services.

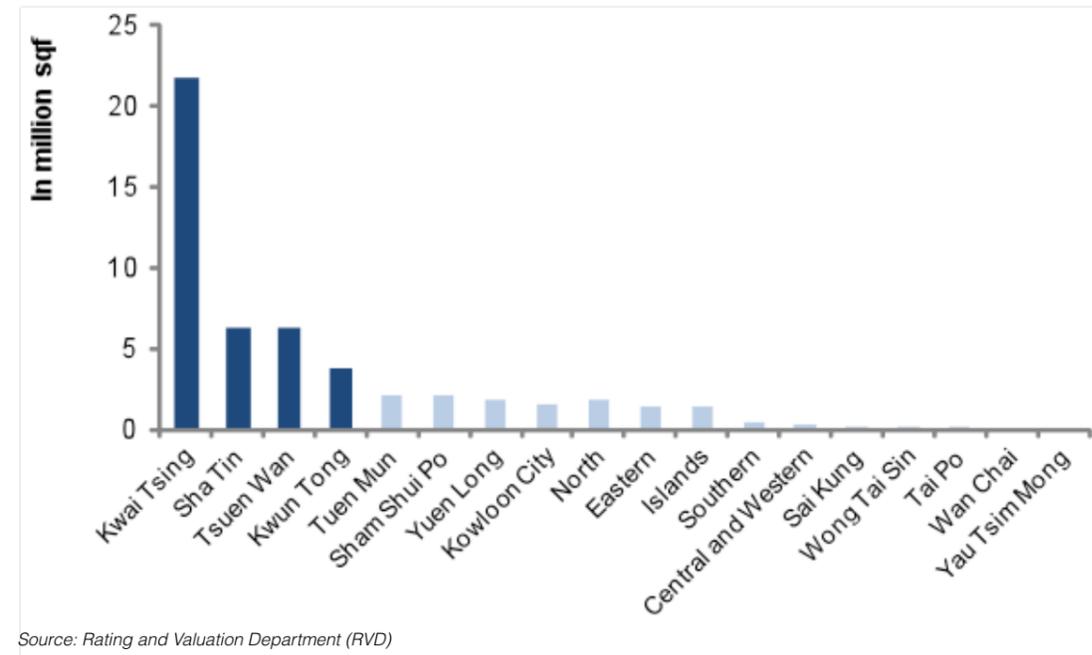
### 2.4.1 Warehousing and Storage

Warehousing and storage act as a place for temporary stay of goods where customised value-added services such as packaging, inspection, weighing and sampling are offered.

Hong Kong being a logistics and trading hub in Asia, storage services are in strong demand, leading to high warehouse rental. By the end of 2013, rent for warehouses reached an average rate of HKD 9.2 /sqf/month<sup>3</sup>.

There is 51.1 million sqf gross floor areas (GFA) of private storage space<sup>4</sup> in Hong Kong in 2013 and over 80% of the storage space is located within or around the New Territories, with 67% located in Kwai Tsing, Tsuen Wan and Sha Tin.

Figure 2.9 Supply of Private Storage by Districts in Hong Kong, 2013



Source: Rating and Valuation Department (RVD)

<sup>3</sup>Hong Kong Industrial Market Q4 2013, by CBRE Global Research and Consulting, retrieved 2014.

<sup>4</sup>According to the Rating and Valuation Department, private storage comprises premises designed or adapted for use as godowns, or cold stores, and includes ancillary offices. Premises located within container terminals are included.

Figure 2.10 Distribution of Storage Facilities in Hong Kong and Key Facilities



Source: Compiled from Rating and Valuation Department (RVD) data

### 2.4.2 Packing and Crating

Packing and crating is an essential value-added service of cargo handling. Cargoes are packed and crated into different forms and sizes as required by the clients for shipment and storage. More and more cargo owners prefer to package their products at the lower end of the supply chain, right before shipping to stores for additional flexibility. Warehouse service providers and freight forwarders have evolved and are now offering tailor-made services as well.

### 2.4.3 Courier Activities

Courier Activities refers to door-to-door deliveries within guaranteed time and traceable location. Hong Kong has good air connectivity linking to different parts of the world. Typically, goods can be delivered by the next day, if not the same day, to major cities all over the world. Hong Kong's courier industry is dominated by a few multinational players. They offer many value-added services including packaging, insurance, dangerous and bulky goods handling, customs clearance, and shipment-tracing. The smaller operators tend to focus on niche areas and particular markets.

In January 2012, FedEx expanded its HKIA facility to 4,695 m<sup>2</sup>, which increased its cargo handling capability by 37%. Additionally, TNT Express opened a new 7,380 m<sup>2</sup> regional hub in Hong Kong in March 2012. The facility is able to handle 600 tons of cargo per day.

## 2.5 Logistics Supporting Services

### 2.5.1 Maritime Supporting Services

#### Ship Finance

The shipping industry is capital intensive, making the finance function particularly important. It used to take place in the form of mortgages for ship owners, and has evolved into a wide range of activities including Initial Public Offerings, sale and leaseback transactions and other financial products. Ship financiers work very closely with maritime lawyers and ship owners to ensure the products are tailored to their needs.

The ship finance market in Hong Kong is well-established and highly competitive. Many of the world's major shipping banks have a presence in Hong Kong.

#### Marine Insurance

Marine insurance is vital to the shipping industry. It covers the loss and damage of ships and cargoes during a voyage and assets such as terminals. In general, there are 3 types of shipping related insurance, including

- Marine hull and machinery insurance, which insures the loss or damage to the hull and machinery of the ship;
- Marine cargo insurance, which insure the cargo on the ship; and
- Protection and indemnity (P&I) insurance, which covers third-party liabilities and expenses due to ownership or operation of ships.

Hong Kong has a wide range of international marine insurance service providers offering various types of marine insurance. As of September 2013, there are 84 authorised ship insurers in Hong Kong, of which 32 are foreign insurers. Hong Kong is home to many international P&I Clubs (co-operative insurance associations), where members (e.g. ship owners, charterers and operators) mutually insure each other for liabilities caused by personal injury, pollution and cargo claims.

#### Maritime Law & Arbitration

Maritime legal services cover both commercial shipping activities and maritime casualty. The former involves legal process such as new building contracts between owners and shipyards, sales agreements, ship registration and incorporation, and ship finance agreements.

The UK's Maritime Law, the basis of Hong Kong maritime law, is widely adopted in the world. The High Court of Hong Kong, which has its own Admiralty Court Judge, has specialists to deal with admiralty disputes.

Hong Kong is a major maritime arbitration centre in the region. The Hong Kong International Arbitration Centre (HKIAC) resolves shipping disputes outside the courts through maritime arbitration under specific terms set out in an arbitration agreement.

In 2012, the HKIAC handled about 110 maritime arbitration cases. Arbitrators of the Maritime Arbitration Group were appointed 163 times in 2012, a growth of 66% from 2011.

#### Ship and Cargo Surveying

The surveyors' clients include ship owners, charterers of ships, insurers and shippers. The following defines the responsibilities of a ship surveyor and a cargo surveyor:

- Ship Surveyor  
Ship surveyor evaluates the condition of a ship when it is hired by a charterer, damaged during the charter period or when it is returned by the charterer; represents the ship owner to watch on the maintenance or repair at the shipyard.
- Cargo Surveyor  
Cargo surveyor assesses whether a ship is suitable for the cargo shipped, surveys on the quantity and condition of the cargo loaded, and assists the shipper in different transactions.

These surveys are conducted to prevent avoidable disputes and provide comfort to all parties involved. Where appropriate, the surveyors will offer professional advice.

### 2.5.2 Public Governance

#### Transport and Housing Bureau

The Transport and Housing Bureau (THB) has policy responsibility for Hong Kong's transportation and housing. In terms of transport, THB is responsible for the formulation of policies on matters relating to Hong Kong's internal and external transportation. This includes air services, land transport, maritime transport and logistics. THB has a number of key policy objectives including:

- To enhance and promote Hong Kong as an international and regional transportation and logistics hub;
- To enhance, in partnership with the Airport Authority, the competitiveness of the Hong Kong International Airport and promote Hong Kong as an international and regional aviation centre; and
- To enhance the competitiveness of the Hong Kong port and to strengthen Hong Kong's position as an international shipping and maritime centre.

#### Marine Department

The Marine Department (MD) is the marine authority in Hong Kong. It has two principal functions: the administration of the port and the administrative control of all ships on the Hong Kong Shipping Register. It is responsible for all navigational matters in Hong Kong and the safety standards of all classes and types of vessels. MD's daily duties include traffic management, harbour patrol, vessel traffic service, provision of mooring buoys and enforcement of international regulation.

#### Ship Register

MD is responsible for maintaining the Hong Kong Shipping Register, which is now the world's 4<sup>th</sup> largest ship register with gross registered tons of 80 million at the end of January 2013. The Marine Department is responsible for issuing all ship and crew certificates. As an Associate Member of the International Maritime Organisation (IMO), the industry's global legislative body, the Hong Kong Government, engages in the development of global maritime regulation. Hong Kong adopts all major international conventions and as a major Flag Administration fulfils all its international obligations.

### Civil Aviation Department

The Civil Aviation Department (CAD) is the civil aviation authority in Hong Kong. Apart from the regulatory role, CAD also act as an air navigation service provider and provides air traffic control services to all aircraft operating in and out of Hong Kong International Airport and within the Hong Kong Flight Information Region (FIR).

### 2.5.3 Education & Industrial Support

#### Maritime Education

In Hong Kong, specialised courses in different maritime areas such as shipping, law, supply-chain management, and transport logistics, are provided by various institutions of higher education. For example, the Hong Kong Polytechnic University (PolyU) offers academic programmes in international logistics and supply chain management. The C Y Tung International Centre for Maritime Studies, established within PolyU, offers research facilities for the maritime sector. Other higher education institutions such as the Chinese University of Hong Kong also offer specific courses in supply chain and logistics management.

Degree programmes in mechanical engineering by University of Hong Kong, Hong Kong Polytechnic University and Hong Kong University of Science and Technology and higher diploma programmes in mechanical engineering by the Hong Kong Institute of Vocational Education are recognised by the Marine Department as the initial education qualification as an engineering cadet.

Apart from higher education, there are institutes which provide more technical focussed education. The Hong Kong Sea School provides secondary education, incorporating both academic and practical skills. Students are nurtured and trained for sea-related industries or other occupations. The Maritime Services Training Institute in Tuen Mun offers training for Ratings and for Deck Officers up to Class 3.

Other forms of education and training include in-house training by some local shipping companies, leading to local engineer certificates; and seminars and conferences organised by other maritime education providers.

#### Industry Associations

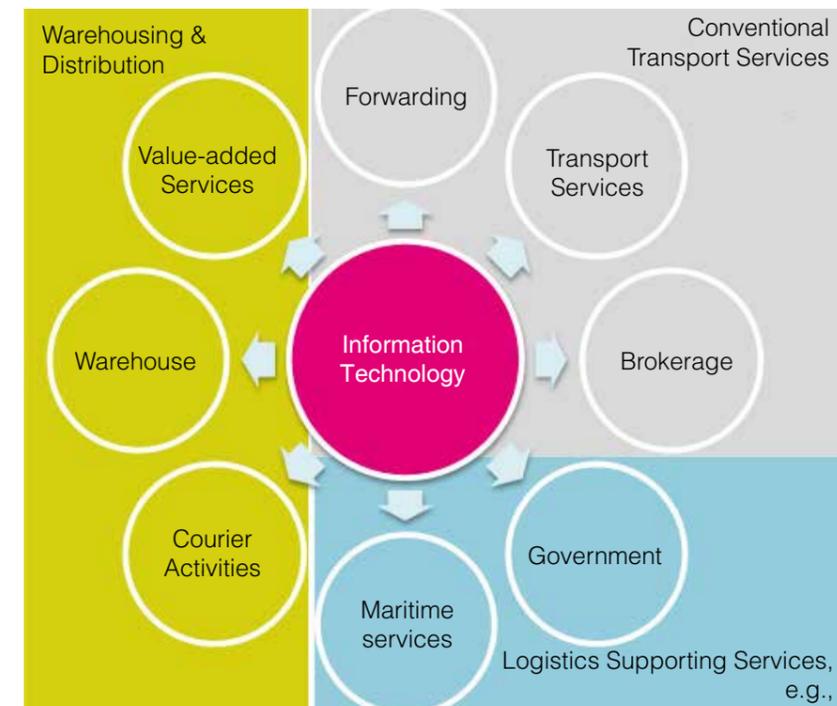
Industry associations represent the interests of specific stakeholders, facilitate discussion within the trade and act as a communication channel between the trade and the government. Examples of associations include Hong Kong Association of Freight Forwarding and Logistics Ltd (HAFFA), the Hong Kong Shippers' Council (HKSC), the Chartered Institute of Logistics and Transport in Hong Kong (CILTHK) and Hong Kong Shipowners Association (HKSOA).

### 2.5.4 Innovative Technology (IT)

Innovation and Technology are drivers for economic growth and industrial competitiveness, including that of the logistics industry. Technology facilitates the smooth flow of goods, services and information, integrating business processes across the supply chain. The following are examples of technology applications in transportation and warehousing.

- **Transportation:** technology enhances the track and trace ability by improving the visibility of information (order status, security, location and delivery schedule) via the uses of:
  - > EDI
  - > Bar coding
  - > Fleet scheduling
  - > Track and Trace systems
  - > RFID
  - > Global Positioning Systems
- **Warehousing:** technology aids various value added logistics functions, such as Just-in-Time (JIT), Vendor Managed Inventory (VMI), Finished Goods Inventory (FGI) distribution via the applications of:
  - > Bar coding
  - > Inventory management systems
  - > Warehouse management system
  - > Order management system

Figure 2.11 Connection between Modern Logistics and IT Services



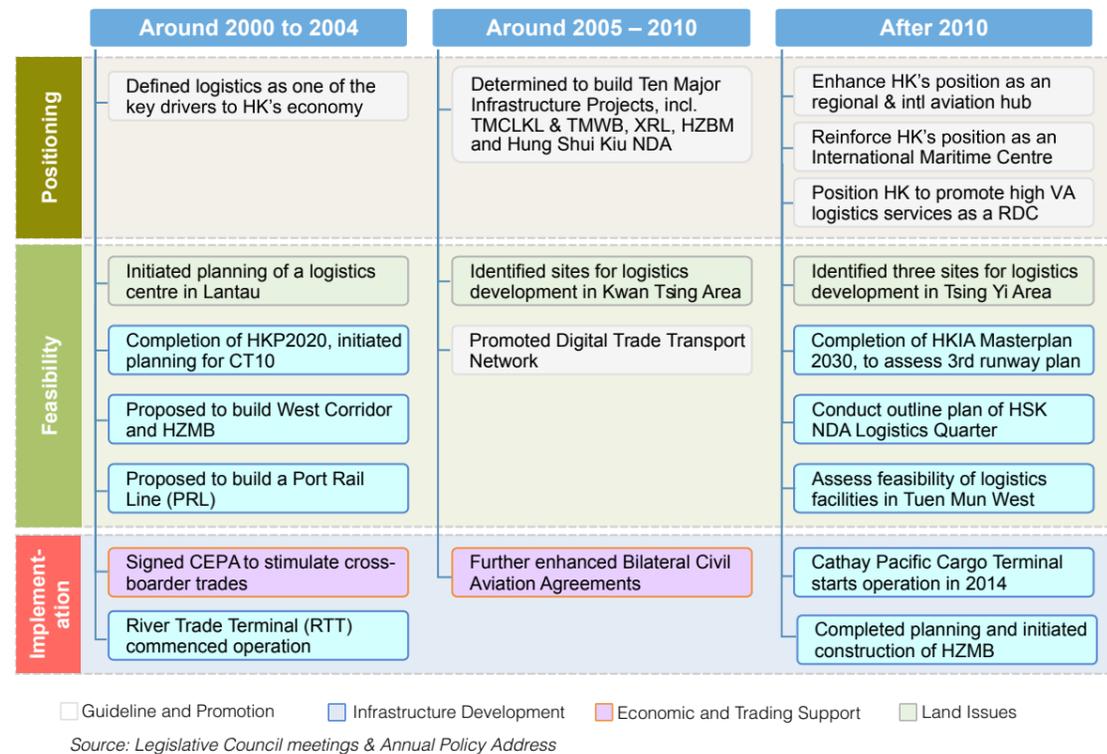
Source: Study Team

### 3 Policy Review and Infrastructure Development

#### 3.1 Logistics Policies Support

In the following table, government policies relating to the Hong Kong logistics sector are summarised from 2000 to now. The policies are classified into three periods, i.e., 2000-2004, 2005-2010 and after 2010.

**Figure 3.1 Summary of Policies Relating to the Logistics Sector since 2000**



#### Period of 2000-2004

Key policies and developments include:

- Several feasibility studies of logistics infrastructure development were initiated and conducted; including planning of a logistics centre in Lantau, Container Terminal 10, West Corridor and Hong Kong-Zhuhai-Macau Bridge (HZMB), and a Port Rail Line;
- River Trade Terminal (RTT) commenced operation to boost the capacity of water transportation; and
- Closer Economic Partnership Arrangement (CEPA) was signed to stimulate the Mainland – Hong Kong trade activities across the border.

The logistics policies during the period of 2000-2004 mainly aimed at increasing cargo handling capacity and to facilitate trade activities with mainland China.

#### Period of 2005-2010

Key policies and developments include:

- Infrastructure development projects were inherited for further investigation, design and planning. However, most development projects were delayed, suspended or incomplete by the end of the period due to political, financial or social reasons.

During this period, the regional logistics market was re-shaping due to the rise of emerging economies. Hong Kong encountered strong competitors in Shenzhen, Shanghai and Singapore, especially in the field of sea cargo transportation.

However, the government's support to the Hong Kong logistics cluster was inadequate. Key infrastructure developments such as HZMB were delayed. Potential land for logistics use was identified but not carried forward for further analysis.

#### Period of 2010-now

Key policies and developments include:

- Hong Kong targets to re-gain its competitiveness in logistics by announcing its strategic positioning to be an aviation hub, an international maritime centre and a regional distribution centre;
- Potential land for logistics use is discussed, but the sites are yet to be confirmed;
- Feasibility planning and design for 3<sup>rd</sup> runway and several road infrastructure are undergoing;
- A new air cargo terminal commence operations in 2014. The delayed HZMB is scheduled to be completed by 2015-2016.

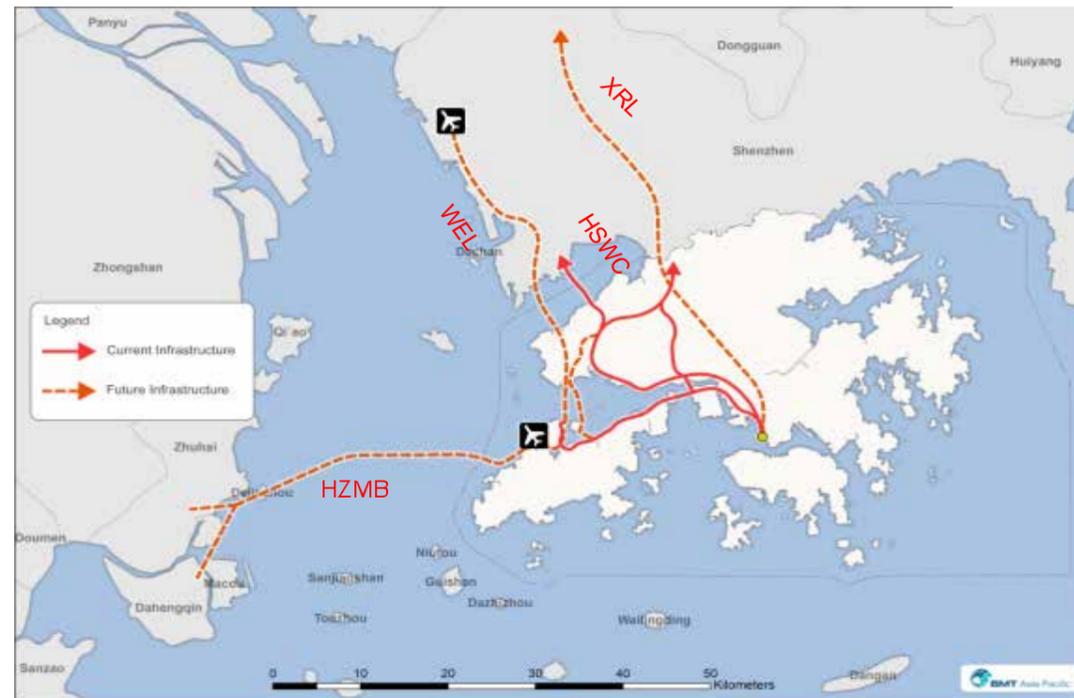
It was not until recent years that the government switched its attentions back to the logistics sector with an aim to enhance Hong Kong's competitiveness. Potential land for logistics use, including the possible reclamation sites, is under discussion. The government also targets to complete major infrastructure projects such as HZMB and the third runway.

However, the policy support is on the strategic positioning level. Detailed planning and development projects are yet to be confirmed. After a long period of suspension on logistics and land development, the overall policy support of logistics in Hong Kong is not sufficient compared to other uprising competitors.

### 3.2 Infrastructure Development

The following map and table summarise the existing and planned major infrastructure developments in Hong Kong. Along with the growth in air and sea cargoes, the concentration of logistics activities is moving toward the western part of the territory.

**Figure 3.2 Existing and Planned Key Infrastructure in Hong Kong**



**Table 3.1 Details of the Existing and Planned Key Infrastructure**

Item	Operating Year	Linkage
HSWC	Since 2007	Connecting Shenzhen Bay and Yuen Long Highway, further to Lantau Island via proposed TMCLKL and TMWB
XRL	2015*	Connecting Hong Kong to national high-speed rail network
HZMB	2016*	Connecting Lantau Island in Hong Kong to Zhuhai, Macau and west PRD
WEL	Pending	An express railway between HKIA and SBIA

Note: \* estimated completion year. HSWC: Hong Kong-Shenzhen Western Corridor; XRL: Guangzhou-Shenzhen-Hong Kong Express Rail Line; HZMB: Hong Kong-Zhuhai-Macau Bridge; WEL: Hong Kong-Shenzhen Western Express Line; TMCLKL: Tuen Mun - Chek Lap Kok Link; TMWB: Tuen Mun West Bypass

## 4 Economic Importance of Hong Kong Logistics Industries

In Hong Kong, trading and logistics is considered one of the Four Key Industries driving the economic growth and creating employment<sup>5</sup>. In 2012, the trading and logistics industries jointly contributed HKD 495.4 billion of value added, accounting for 24.6% of Hong Kong GDP. The industries also created a total of 764,900 jobs, i.e., 20.9% of total employment in Hong Kong.

Logistics activities, based on the definition of the Census and Statistical Department (C&SD), mainly include freight transport, freight forwarding, storage, postal and courier services. In 2012, the Hong Kong logistics industries generated a total value added of HKD 67,100 million (or 3.3% of total GDP) and a job number of 183,200 (or 5.0% of total employment).

### 4.1 Measuring the Economic Importance

In this Chapter, a broader Economic Impact Assessment of the logistics industries as defined in Chapter 2 is conducted to scrutinize the economic importance of the logistics cluster to the Hong Kong economy.

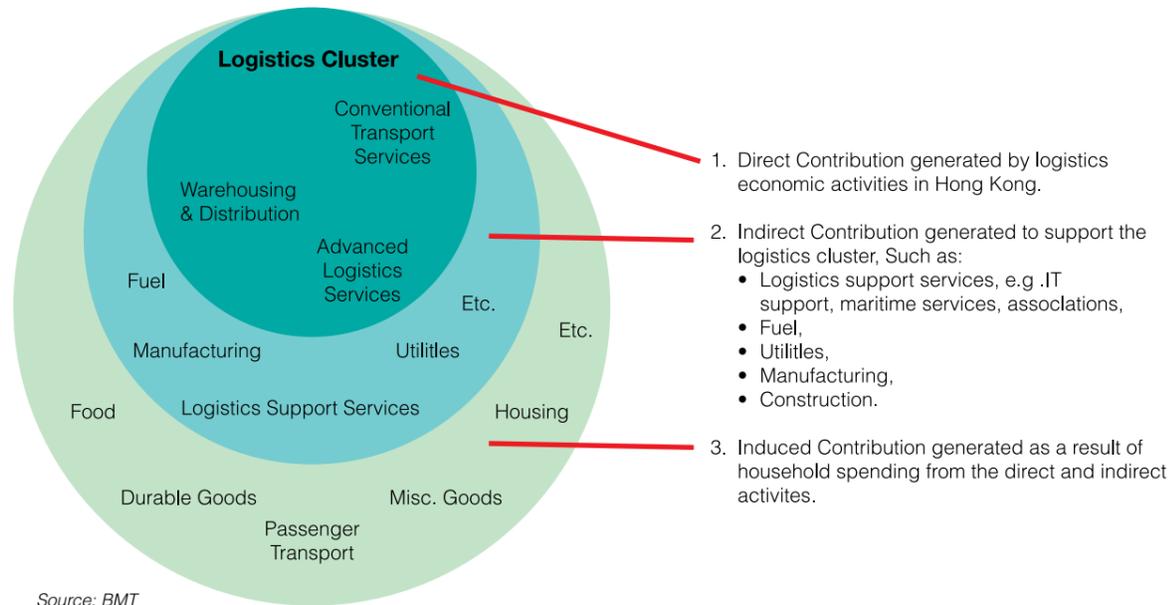
Adopting a widely accepted approach of measuring the economic contributions of an industry, the economic impacts of Hong Kong logistics industries – normally interpreted as **Value Added** – can be classified by the following three tiers.

- **Direct Impacts** are the initial, immediate economic activities generated by the logistics cluster. Direct impacts are the first round of spending in the economy;
- **Indirect Impacts** are economic activities occurring in other businesses / industries in the community as a result of supplying inputs to the logistics industries. For any direct economic impact there is an economic flow-on effect – or indirect impact. This is the combination of upstream industry (i.e. the suppliers of goods and services) effects and downstream producer (e.g. processors of natural resources) effects;
- **Induced Impacts** are the spending of incomes by the employees engaging in industries directly and indirectly related to the employees of logistics industries on local goods and services.

The following figure shows the direct, indirect and induced economic contribution of the logistic cluster.

<sup>5</sup>Census and Statistical Department, HKSAR

**Figure 4.1 Economic Contribution of Logistics Cluster**



In Hong Kong, C&SD maintains a Hong Kong Standard Industrial Classification (HSIC) which classifies economic units into industry classes based on their major activities. Relevant statistical data, including value added and employment, based on specific HSIC code is provided by C&SD.

**4.2 Direct Contribution**

As mentioned, the direct economic contribution refers to the value added generated directly by the logistics industries in Hong Kong identified in Chapter 2.

According to “The Four Key Industries and Other Selected Industries in the Hong Kong Economy” published by C&SD in April 2014, the logistics industry generated a total value added of HKD 67,100 million (or 3.3% of total GDP) and a job number of 183,200 (or 5.0% of total employment).

**Figure 4.1 Economic Contribution of Logistics Cluster**

Detailed Industry Group, 2012 Data	Number of Persons Engaged	Value Added (in million HKD)
Hong Kong’s Logistics Sector	183,200	67,100
Percentage in Hong Kong Economy	5.0%	3.3%

Source: Census and Statistical Department

**4.3 Indirect and Induced Contribution**

Besides the direct employment given and value added to the economy, the logistics industry also widely imposes its impact over the other industries as well as the overall society. Such impact could be defined as Indirect Impact and Induced Impact.

For indirect and induced economic contributions, multiplier approach is commonly adopted to measure the contributions. The estimate of the multipliers requires a detailed input-output table which is not available in Hong Kong and normally would take two to three years to establish one. Therefore, another widely accepted approach - international benchmarking - has been adopted in this study.

To estimate the indirect and induced economic contributions brought by Hong Kong logistics industry, Singapore, the United Kingdom and Belgium were studied.

Several parameters are considered when selecting the benchmark:

Indirect contribution:

- *Import dependency* - Indirect multiplier should also take into account of import leakage effect due to the import of foreign goods and services which creates values for foreign locations instead of Hong Kong. More imports required in the supply chain would incur higher leakage of value added and jobs to foreign countries, and hence would result in a lower multiplier.
- *Similarity of economic structure* – As the indirect multiplier measures the linkages of logistics activities to other industries, economies of similar structures are more likely to create similar multipliers.
- *Percentage of transshipment cargoes* – Transshipment cargoes generally receive services from the local logistics sector compared to direct cargoes due to the short stay. In other words, a higher percentage of transshipment business results in a lower indirect multiplier.

Induced contribution:

- *Gross national savings* – In regions with lower gross saving rates, people spend more and stimulate more economic activities. These regions tend to have higher multipliers.
- *Import dependency rate* - Import leakage effect is also considered for induced contribution. More imports occurring in the economic activities means more leakage of value added and employment to foreign countries.

Hong Kong’s multipliers of logistic cluster are considered lower than that of the United Kingdom and Belgium, but higher or close to Singapore.

## 4.4 Combined Economic Contributions

The following table summarises the total economic contribution generated by Hong Kong's logistics cluster based on the 2012 data.

**Table 4.2 Combined Economic Contributions of the Logistics Cluster in Hong Kong**

Economic Contributions, 2012 Data	Number of Persons Engaged	Value Added (in million HKD)
Direct Contribution	183,200	67,100
% of Hong Kong Economy	5.0%	3.3%
Indirect Contribution	46,354	22,219
Induced Contribution	40,226	18,555
<b>Total Contribution</b>	<b>269,780</b>	<b>107,874</b>
<b>Percentage in Hong Kong Economy</b>	<b>7.4%</b>	<b>5.3%</b>

Source: Study Team Analysis

Based on estimation, the total economic contribution brought by the logistics industry itself together with the other indirect and induced activities, added up to HKD 107.9 billion, 5.3% of the total economy and around 269,780 job opportunities

# 5 Competitiveness Assessment

## 5.1 Introduction

In this Chapter, key competitive countries and cities were identified and analysed to compare their competitiveness with Hong Kong.

Based on interviews with the industrial stakeholders, *Shenzhen, Shanghai and Singapore are commonly regarded as the Direct Competitors with Hong Kong*, as they share the same cargo sources or regional positioning.

Facts and data would be gathered mainly from two types of sources,

- Stakeholder's comment and views - including warehouse operators, shipping companies, airline companies, port operators, industrial associations and government officials;
- Desktop research based on different reports and government documents.

## 5.2 Key Competitors

### 5.2.1 Identification of Key Competitors

In recent years, the concentration of logistics development moved to Asia along with the growing of intra-Asian trades and economies. Key logistics companies, including airlines, shipping lines, freight forwarders and information processing companies established their headquarters in Asia.

According to the stakeholders' feedback, major logistics hubs in Asia that may pose potential threats to Hong Kong include Singapore, Shenzhen, Shanghai, Taiwan and Seoul.

Among all these competitors, the following three cities are the direct competitors to Hong Kong.

- Shenzhen – share the same cargo sources moving from / to the Pearl River Delta region (PRD);
- Shanghai – share the same positioning as the trading hub and financial centre in China;
- Singapore – share the same positioning as the regional hub for intra-Asian trades and transshipment centre.

**Figure 5.1 Key Regional Logistics Clusters**



Source: Study Team

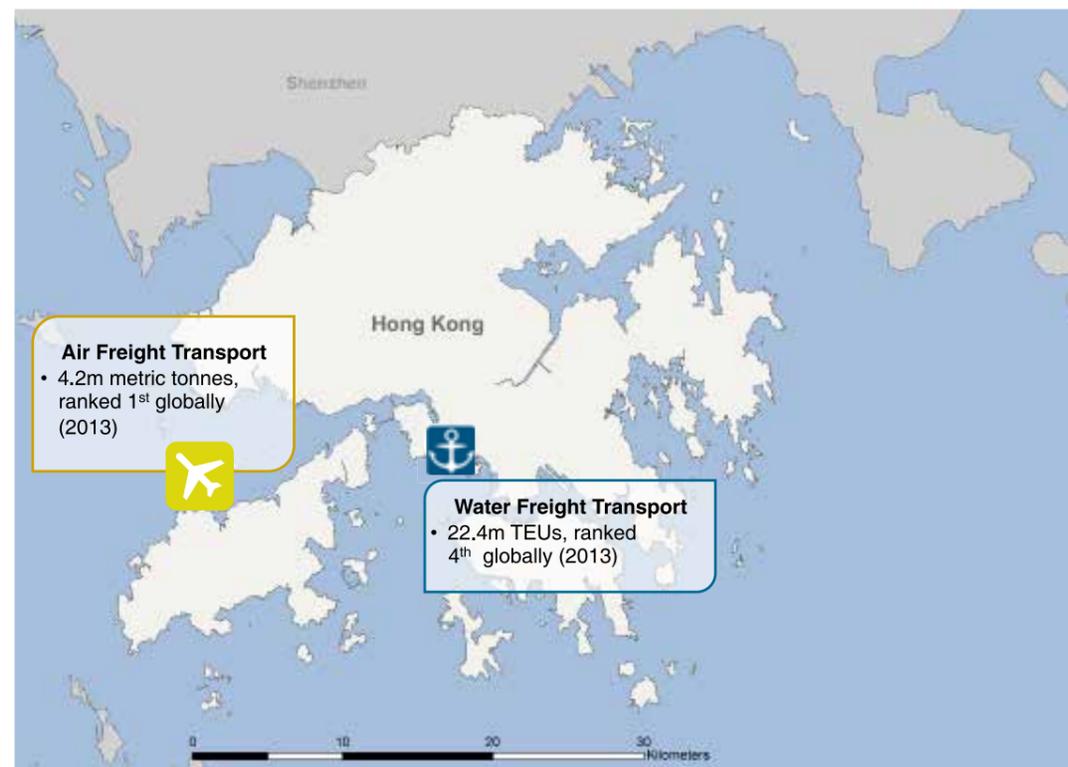
In the following sections, the characteristics and competitiveness of the logistics industries in Hong Kong and the aforementioned key competitors are researched and summarised with respects to current condition, customs services, manpower and government support.

## 5.3 Competitiveness of Logistics Hubs in the Region

### 5.3.1 Hong Kong – a Market Driven Economy, a Free Port with Geographic Advantages

Located at the centre of Asia Pacific region, Hong Kong has a clear geographic advantage by reaching 48 major world cities within 4 hours by air. As an ideal gateway to access mainland China, particularly the PRD manufacturing base, Hong Kong benefits from being a free port with the international legal regime, a well-renowned business and financial environment, and a mature trading and logistics system.

**Figure 5.2 Logistics Facilities and Performance in Hong Kong**



Source: Study Team, Census and Statistics Department; AAHK website

### Efficient Customs

As a free port, Hong Kong has a clear and efficient customs system, which is widely considered a key feature to maintain its position as an international trading hub and a logistics centre. The clearance, inspection and quarantine procedures in Hong Kong are much simpler and provide a unique competitive edge when comparing with those hubs in mainland China. This system attracts many traders to position Hong Kong as the transshipment centre of imports / exports with mainland China.

### A Well-Educated Society

Hong Kong, as a well-educated society, is capable of providing skilled personnel with the capability to use multiple languages and understand different cultures. However, as commonly the case in other developed cities, the logistics industry is perceived to offer poor career prospects and harsh working conditions. Hindering the industry's ability to attract and retain talent. The labour cost is also at a relatively high level but industrial operators still find it hard to recruit and maintain its staff.

### A Mature Legal and Arbitration System

Hong Kong also adopts a comprehensive legal and arbitration system to serve the industry cluster with protection of rights and solutions to disputes.

### Collaborations with PRD

Hong Kong being a city economy has obvious limitations in terms of land and labour supply. As Hong Kong develops into a mature economy the costs of land and labour are becoming very high. While the logistics industry needs to maintain critical mass to remain competitive, the competition between Hong Kong and Shenzhen should not be purely on cargo volume and cost. Logistics service providers should gradually move into a service mix that requires high level of flexibility, reliability, safety, and sophisticated processing. Hong Kong needs to compete with Shenzhen to retain a critical mass for efficient operations but at the same time, must collaborate with Shenzhen to take advantage of land and labour resources in the PRD and to provide more complex and comprehensive supply chain solutions to cargo owners.

### Limited Government Support

Being a market driven economy, government involvement is seldom found in Hong Kong's business world. Apart from the generally low tax regime, the government offers support to the industries by the form of investment in supporting infrastructure. Other measures include undertaking studies to upgrade the performance of Hong Kong's logistics infrastructure as well as facilitate the movement of the goods and operation of the supply chain. According to stakeholders, there is little policy support from the government specifically for the warehousing and logistics industry.

**Table 5.1 Summary of Hong Kong’s Logistics Policies**

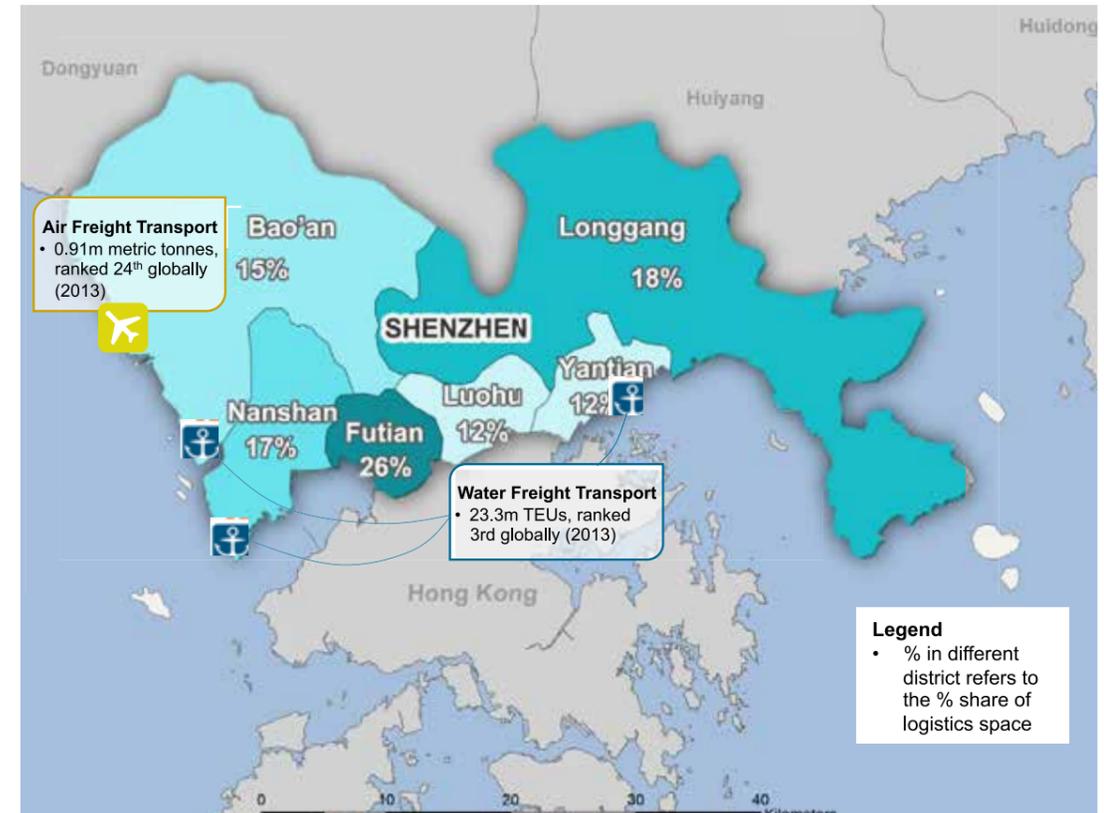
<p>Customs clearance:</p> <ul style="list-style-type: none"> <li>Implementation of different electronic cargo clearance systems with an aim to expedite cargo clearance at control points</li> </ul> <p>Business environment related:</p> <ul style="list-style-type: none"> <li>Low tax base in Hong Kong</li> <li>Conclusion of CEPA, under which HK service suppliers (including logistics companies) enjoy preferential treatment in entering into the Mainland market</li> </ul> <p>Commodity related:</p> <ul style="list-style-type: none"> <li>Exemption of wine duty</li> <li>Implementation of Wine Storage Management Systems to boost confidence of wine storage in Hong Kong</li> </ul> <p>Training and competitiveness enhancement:</p> <ul style="list-style-type: none"> <li>Provision of subsidies for students and practitioners who enrol in logistics training courses, in order to help develop human resources for the industry</li> <li>Provision of loans and funding for qualified SMEs (including logistics companies), so as to implement projects which increase the SMEs’ competitiveness</li> </ul>
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Source: Compiled from different sources, including stakeholder consultations, government websites, LegCo document and Annual Policy Address.

**5.3.2 Shenzhen - An Uprising Force in South China Benefiting from Cost Advantages**

Shenzhen is geographically located next to Hong Kong and is widely considered a rival especially for sea cargo transportation.

**Figure 5.3 Logistics Facilities and Performance in Shenzhen**



Source: Study Team, Shenzhen Port websites, Shenzhen International Airport website, consultation.

**An Uprising Economy**

As one of the key manufacturing bases in the PRD region, Shenzhen has become one of the most competitive logistics centres in mainland China. It is the gateway for a substantial hinterland generating a GDP of RMB 4.8 trillion in 2012, accounting for 10.2% of China’s total. The major products transported via Shenzhen include electronics, telecommunication products, watches, and automobiles.

In recent years, the city experienced a contraction of the PRD cargo base due to the relocation of manufacturers to inland cities or overseas. This aligned with the future positioning of Shenzhen to concentrate more on service based industries rather than labour intensive manufacturing activities.

### High Dependency on Sea / Air Transport

The freight logistics in Shenzhen relies heavily on sea / air transport; while the development of Shenzhen Bao'an Airport is relatively sluggish. Shenzhen has the 3<sup>rd</sup> largest container port in the world handling over 23.3 million TEUs in 2013. The Port is now the largest gateway port in South China, replacing Hong Kong's leading position in the past. Shenzhen Port contains two port zones:

- Shenzhen East, including Yantian Container Terminal
- Shenzhen West, including other three major container terminals of Shekou, Chiwan and Dachan Bay

Customs services in Shenzhen are not as efficient as Hong Kong. The inspection rate was high at around 15% to 25%<sup>6</sup>. In recent years, the customs services in Shenzhen have been improving but not significantly. The establishment of Qianhaiwan Free Trade Port Area (QFPA) in 2009 could be considered one of the most significant plans to develop the city into a logistics hub.

**Table 5.2 Summary of Shenzhen's Logistics Policies**

<p>Positioning:</p> <ul style="list-style-type: none"> <li>• <b>PRD Reform and Development Plan (2008-2020)</b>, which points out an aim to <b>promote hub-type logistics parks</b> in PRD;</li> <li>• <b>"46 Cities of Modern Logistics" (2010)</b>, which sets out Shenzhen's development focus on <b>international and bonded logistics</b>;</li> <li>• <b>Development Plan for Cold Chain Logistics in Shenzhen (2011)</b>, in which plans to develop Shenzhen into an important location for Chinese cold chain have been proposed; Infrastructure development:</li> <li>• <b>The 12th Five Year Plan for the Development of Modern Logistics in Shenzhen (2011)</b>, which includes a spending of <b>RMB 59.8 billion</b> in the following 5 years on improving logistics infrastructure including logistics parks, in order to transform Shenzhen into the key intermodal transportation centre and SCM centre in Asia.</li> </ul> <p>Subsidies and sponsorships:</p> <ul style="list-style-type: none"> <li>• <b>Headquarters Policy (2012)</b>, under which <b>subsidies and grants</b> are provided for companies (including logistics service operators) setting up or relocating their headquarters to Shenzhen. Subsidies are provided in the form of one-off sponsorship, sales related bonus or/and rental subsidies;</li> <li>• <b>Key Logistics Company Certification Scheme</b>, under which grants are provided for companies which are qualified as <b>"Key Logistics Company"</b>;</li> <li>• For companies which are to build logistics parks in Shenzhen, they are entitled to <b>discounted land price</b> (30%-40% off) and <b>long term land lease</b> (50 years);</li> <li>• Up to RMB 1 million sponsorship for "global top 100 logistics company" which <b>set up a Distribution Centre</b> in Shenzhen.</li> </ul>
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Source: Compiled from different sources, including Shenzhen Government website, consultation

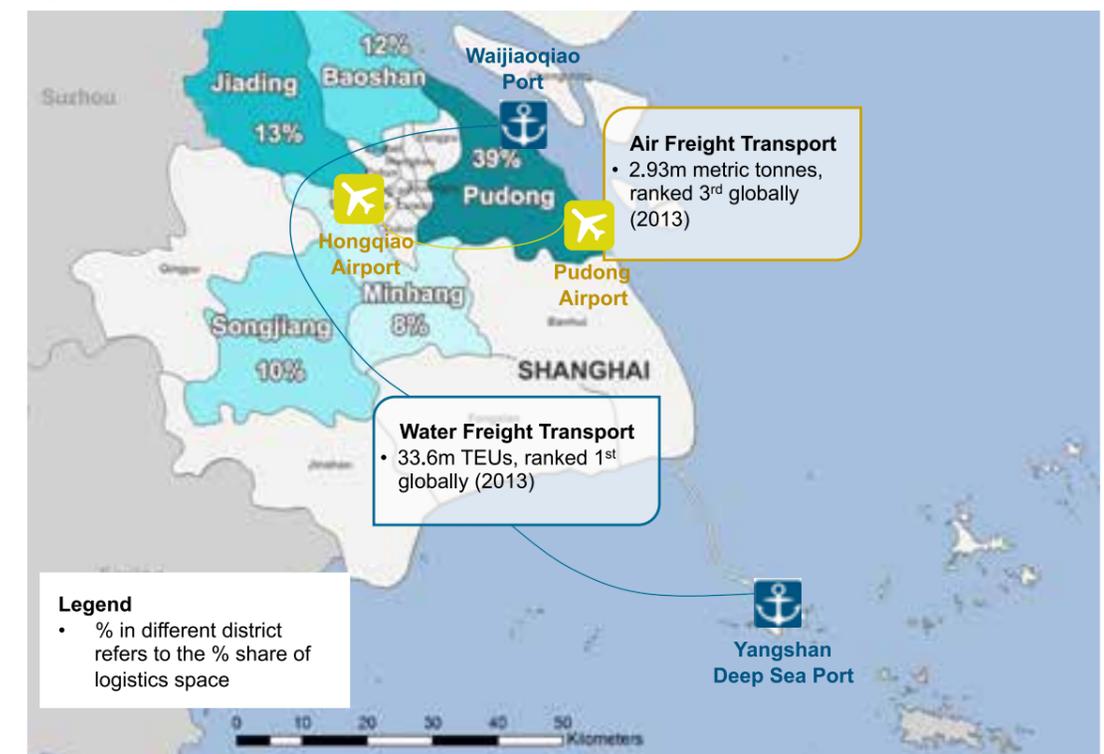
### 5.3.3 Shanghai - A Gateway for East and Central China Aiming to Attract International and Regional Company Headquarters

Perfectly situated at the estuary of the Yangtze River, Shanghai has a substantial hinterland mainly covering cities and regions along the Yangtze River from Shanghai at the east to Chongqing and Sichuan in the west. Shanghai has a vibrant direct hinterland at the Yangtze River Delta (YRD), covering Shanghai, Zhejiang and Jiangsu. The YRD region generated a GDP of RMB 8.9 trillion, equivalent to 18.9% of the China economy in 2012.

#### Reliant on YRD for growth

The YRD region is a major manufacturing base in China producing a variety of goods including automobiles, machinery, electronics, petrochemicals, apparels, garment and food. The growth of logistics industry in Shanghai largely depends on the future development of the YRD manufacturing activities.

**Figure 5.4 Logistics Facilities and Performance of Shanghai**



Source: Study Team, Shanghai Port websites, Shanghai International Airport website, consultation.

<sup>6</sup>World Bank Logistics Performance Index Report

The Port of Shanghai is now the world's largest container port handling 33.6 million TEUs in 2013. The Port is divided into two districts:

- Waigaoqiao Port – the old port area with a draft limitation;
- Yangshan Deep Water Port - currently the main port district accommodating mega vessels;

Restricted by the land area and water depth, Waigaoqiao Port encountered capacity bottleneck in the early 2000s. To solve the capacity bottleneck, Shanghai Government decided to relocate the port to Yangshan situated more than 30km away from the east of Shanghai. The Dong Hai Bridge was built to link the hinterland and Yangshan Port. The Government also drove the relocation process by setting up new regulations to mandatorily shift the long haul services from Waigaoqiao to Yangshan.

For air freight transport, Shanghai has two airports, i.e.:

- Shanghai Pudong International Airport;
- Shanghai Hongqiao International Airport;

In 2013, Pudong International Airport was the world's 3<sup>rd</sup> busiest airport (and the busiest in mainland China) by cargo traffic handling at 2.9 million tons of cargo. The airport currently has three runways and three air cargo terminals. It is a hub for DHL, UPS and FedEx. Shanghai Hongqiao International Airport was ranked 6<sup>th</sup> in mainland China handling 0.4 million tons of cargo.

#### Positioned as the Country's Financial and Logistics Centre

Being positioned as the country's financial and logistics centre, Shanghai provides a favoured financial and business environment to attract logistic investments.

Compared with other cities in mainland China, Shanghai has a relatively efficient customs and clear regulations for different customs-supervised zones. It is also the first customs agency in mainland China to implement "5+2" working days to enable cargo to move around the clock. In 2013, Shanghai launched the first Free Trade Zone (FTZ) in mainland with a land area of 23 square kilometres. The FTZ integrated four existing bonded zones, Waigaoqiao Free Trade Zone, Waigaoqiao Free Trade Logistics Park, Yangshan Free Trade Port Area and Pudong Airport Comprehensive Free Trade Zone. Specified industries such as E-commerce, maritime services, financial and legal services are identified as the pillar services to be developed in the FTZ.

**Table 5.3 Summary of Shanghai's Logistics Policies**

Positioning:

- **"46 Cities of Modern Logistics" (2010)** which sets Shanghai's logistics development focus as **distribution**, medical, chemical, **international and bonded logistics**;
- **Shanghai 2020 Plan**: The plan outlines future development in Shanghai, including plans to **diversify and modernise the logistics and financial service industries**;

Infrastructure development:

- **Shanghai 12th Five-Year Plan (2011-2015)** reveals that Shanghai will **further develop the shipping industry**. Relevant targets include to formulate new policies for customs-supervised zones, develop port logistics, manufacturing logistics and distribution;
- **"Logistics Industry Restructuring and Revitalization Plan" in Shanghai (2009)** includes eight stimulus policies to **promote the development of logistics sector**. In details, there would be policies to improve the logistics management system, regulation of the industry and to increase the capital invested in the industry;

Subsidies and sponsorships:

- **"Operation centre policies"** extended to Waigaoqiao Bonded Logistics Zone. Under the policies, **tax exemptions at corporate and individual levels** will be provided to qualified companies;
- **Business tax exemption** for **warehousing operators registered in Yangshan Free Trade Port Area**;
- The Shanghai Government has set clear targets for logistics projects attraction – e.g. a target of 10 new projects was set for implementation in Waigaoqiao Bonded Logistics Zone in 2011.

Source: Compiled from different sources, including Shanghai Government website, consultation

#### 5.3.4 Singapore - A Policy Driven Logistics Hub Serving Direct and Transshipment Trades in South East Asia

Located strategically at the heart of South-East Asia, this city-state nation is positioned as a leading global financial centre and regional trading hub. Singapore was ranked 1<sup>st</sup> in the World Bank's Logistics Performance Index (LPI) in 2012 and 2007.

Figure 5.5 Logistics Facilities and Performance of Singapore



Source: Singapore Economic Development Board, PSA website, Changi International Airport website

The Port of Singapore was ranked 2<sup>nd</sup> by container throughput in 2013 handling 32.6 million TEUs. The port has a competitive advantage in geographic location to handle the increasing intra-Asia trade. The custom services are considered one of the best in the region in terms of clearance efficiency.

Similar to Shanghai, the Singapore government plans to relocate the port to Tuas in about 10-years to solve the bottleneck of capacity constraint.

On the other hand, Singapore Changi Airport is the only aviation hub in Singapore handling over 1.9 million tons of cargo in 2013. Key logistics facilities are located near the airport including Coolport@Changi for cold chain solutions, Singapore Freeport for high value goods, Changi Airfreight Centre and Airport Logistics Park for air freight value-added services.

#### Strong Policy Support

Singapore is renowned as a policy driven economy as the government often takes a proactive role in the development and support of its logistics sector. The public sector owns and operates most of the major logistic services facilities such as Changi Airport and the Port of Singapore. The Government launched a single window - the Singapore Economic Development Board (EDB) to cooperate with the logistics industry.

Singapore also provides favourable policies to encourage logistics companies to invest and provide logistics services locally. They adopt a network platform for the customs service called "TradeNet System" to enable trading firms to submit documents to all relevant government authorities through the single electronic window.

Table 5.4 Summary of Singapore's Logistics Policies

Marketing and investment facilitation:

- **Active government involvement by EDB** (Singapore Economic Development Board). EDB creates relationships at corporate level with companies and help them attract customers through marketing activities;
- Promote Singapore logistics industry and invite investments through **actively reaching out to logistics operators' regional offices / overseas branches**;
- Provide one-stop solution for companies entering the logistics field;

Driving / maintaining demand:

- **Coupling logistics and manufacturing base**. Singaporean Government has made vast investment to develop land and infrastructure, with the aim of attracting companies to locate factories in Singapore, and subsequently relocate their logistics facilities;
- Singaporean Government has been co-operating with neighbouring economies, especially Indonesia, to **create special economic zones**. The co-operation aims to divert the migration of factories to the nearest low cost locations, e.g. Indonesia, instead of China. By doing so, the office or headquarters of logistics companies can be retained in Singapore;
- Diversify by developing cold chain facilities to cater for the rising demand for perishable products in ASEAN countries. Following the initiative, perishable products now make up to 10% of the cargo mix;

Subsidies and sponsorships:

- **International (/Regional) Headquarters Awards**: Companies, including logistics companies, who **set up headquarters in Singapore** enjoy **concessionary corporate tax rates of 10% or lower (/15% or lower)**, compared to the current 17%;
- **Expansion incentives**: **Local companies which undergo expansion (such as expanding or building new warehouse or logistics centre)** enjoy **concessionary tax rate of 10% or lower**;
- **Productivity & Innovation Credit Scheme**: Qualified companies enjoy 400% tax deduction on up to S\$400,000 of expenditure per year in **purchase of new equipment / manpower training / IP acquisition and registration / R&D projects**.
- **R&D scheme**, worth of multi-million dollars, was launched for **maritime and logistics activities**;

Manpower:

- **Career portal and career catalogue** have been formed to attract new talent to join the industry.

Source: Compiled from different sources, including Singapore Government website, consultation

### 5.3.5 Taiwan – A Stable Logistics Economy Aiming to Improve Service Levels

Taiwan was ranked 25<sup>th</sup> in the 2012 World Bank Logistics Performance Index (LPI). Taiwan has a strong manufacturing base, with specialisation in Information and Communication Technology (ICT). Shippers of automobiles and petrochemicals in Taiwan are major users of logistics services.

In Taiwan, logistics and industrial facilities are mostly situated along the west coast, including two of its major distribution centres:

- Farglory Free Trade Zone (FFTZ) adjacent to the Taoyuan International Airport; and,
- Kaohsiung Port Free Trade Zone (KSPFTZ) at Kaohsiung Port.

In the FTZs, logistics companies provide various value added activities including warehousing and storage, collection and distribution, transiting, transshipment, forwarding, customs clearance, assembling, sorting, packaging, repairing, configuring, processing, manufacturing, testing, product display and technological services.

**Figure 5.6 Principal Logistics Facilities and Performance of Taiwan**



Source: Study Team, National Statistics (Taiwan)

Taoyuan International Airport in Taipei is the principal airport of Taiwan. It is also a key hub for regional airfreight transit. In 2013, the airport handled 1.6 million tons of cargo. To further expand the capacity of the airport, the Government invested US\$1.9 billion to build the third terminal and a 4000m runway. Railway linkage between the airport and the hinterland was also planned.

Regarding sea cargo transportation, Kaohsiung Port is the largest ocean port in Taiwan handling 9.8 million TEUs in 2013. With more and more port development in the region, the position of Kaohsiung is challenged with throughput dropping for years. The Port Authority aims to improve the port's competitiveness by introducing five deep water container terminals with a draught of 16.5m through a reclamation project.

The Customs service in Taiwan is considered adequate but less efficient than those in Hong Kong and Singapore. For instance, there are no 24-hour customs clearance and inspection services even in the FTZ. The inspection ratio is moderate at around 8% to 15%.

#### Integrated Customs Service System

A new single-window customs IT system was recently launched by the Taiwanese Government with an aim to integrate different resources and improve efficiency. The Customs-Maritime-Trade Single Window System (CMT) consolidates the existing three information processing systems in Taiwan, i.e., the Maritime Transport Net (MT NET), the Customs Clearance Automation System, and the Facile Trade Net (FT NET). The system was launched in 2013 and is currently at the marketing and promotion stage.

**Table 5.5 Summary of Taiwan's Logistics Policies**

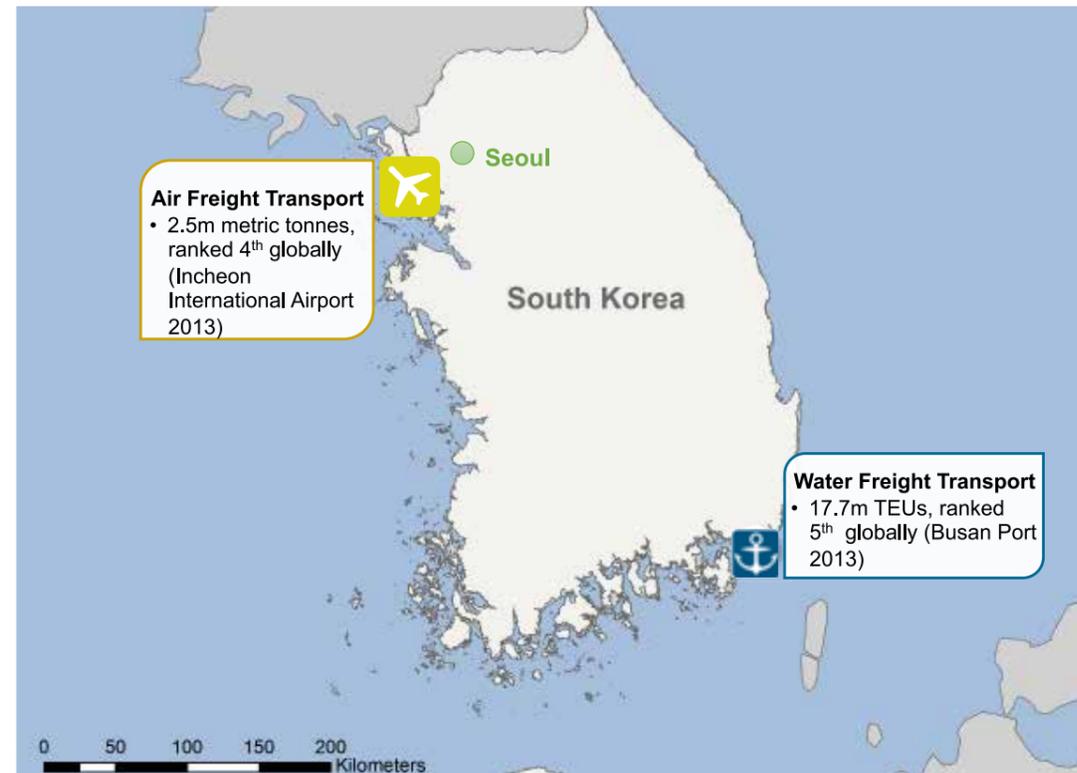
<p>Infrastructure development and customs clearance:</p> <ul style="list-style-type: none"> <li>• <b>“The i-Taiwan 12 Projects”</b>, where Taoyuan International Airport City would be built as the main <b>Asia Pacific airport city</b>;</li> <li>• <b>“Speedily Promoting Service Sector's Development-the 10 Key Service Industries Monthly Series of Activities”</b>, which aims to improve customs clearance efficiency, infrastructure, and logistics services. The target is to <b>move up two places in World Bank's Logistics Performance Index</b>;</li> </ul> <p>Business environment:</p> <ul style="list-style-type: none"> <li>• <b>“Third-Term Plan for National Development in the New Century”</b>: Taiwan's Government would actively push for the signing of FTAs and the <b>establishment of provisionally named “special economic and trade operation zones”</b> to attract foreign investments;</li> </ul> <p>Subsidies and sponsorships:</p> <ul style="list-style-type: none"> <li>• <b>Tax breaks</b>: Qualified foreign companies who set up / use regional distribution centre in FTZ enjoy <b>10% - 100% corporate tax break</b>.</li> </ul>
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Source: Compiled from different sources, including Taiwan Government website and consultation.

### 5.3.6 South Korea – A Transshipment Hub Serving Far East Asia

South Korea is well situated to be an international logistics hub serving Far East Asia. Incheon and Busan are the two major logistics cities for air and sea transport.

**Figure 5.7 Logistics Facilities and Performance of South Korea**



Source: Study Team, Incheon International Airport website, Busan Port website

Incheon International Airport handled nearly 2.5 million tons of cargo in 2013, ranked as the 4<sup>th</sup> busiest port in the world by cargo traffic. The airport has a Cargo Terminal Complex comprising six cargo terminals and five separate warehouses.

The Airport Freight Complex offers over 1 million sqm of space to facilitate the logistics businesses and the operation of the FTZ. The complex is particularly attractive due to its generous land-lease period. The basic lease period is an initial 30 years and could be extended twice up to 50 years.

Regarding ocean cargo transport, Busan Port is located at the southern tip of South Korea. As the world's 5<sup>th</sup> busiest port for containers, the Busan Seaport handled 17.7 million TEUs in 2013, covering 70% of the total import and export of Korea. With a price advantage, there is an increased number of importers in Japan moving their facilities from Japan to the hinterland of Busan. Busan has a distripark located in the FTZ, benefiting from highly subsidised leases and attractive tax structure.

South Korea established the Presidential Council on National Competitiveness to revive the nation's competitiveness. Approaches include:

- Lower and simpler taxes
- Easier trade
- Smoother permitting;

The country also aims to set up Free Economic Zone and Free Trade Zone to promote international investment and trading business.

**Table 5.6 Summary of South Korea's Logistics Policies**

<p>Subsidies and sponsorships:</p> <ul style="list-style-type: none"> <li>• <b>Tax Incentives:</b> Companies investing in FTZ enjoy <b>tax incentives</b>. For example, logistics companies investing over USD 5 million in Incheon FTZ would enjoy 100% national tax reduction for the first 3 years, and 50% reduction for the following two years; 100% reduction in local tax for 10-15 years;</li> <li>• <b>Land Lease Incentives:</b> <b>Land lease incentives of up to 100% reduction</b> granted to qualified companies for <b>10 years</b>;</li> <li>• <b>Zero VAT:</b> Goods can be utilised or consumed in the FTZ without paying customs duty; and supply of goods or services within the FTZ is <b>exempted from value-added tax</b>.</li> </ul> <p>Investment facilitation:</p> <ul style="list-style-type: none"> <li>• <b>One-stop services</b> including construction permission, factory establishment, tax breaks, and foreign investment procedures, are offered;</li> </ul>
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Source: Government website and consultation

## 5.4 Key Performance Indicators of the Logistics Sector

### 5.4.1 Identification of KPI

A list of Key Performance Indicators (KPIs) of the logistics sector was identified based on extensive stakeholder consultations to measure the competitiveness of the aforementioned logistics hubs. Seventeen KPIs are carefully chosen and they are categorised into four groups to represent four major aspects as shown in the following table.

**Table 5.7 Identification of KPI**

<p><b>Cost</b></p> <ul style="list-style-type: none"> <li>• Land/rental cost</li> <li>• Labour cost</li> <li>• Operating costs</li> </ul>	<p><b>Public Services</b></p> <ul style="list-style-type: none"> <li>• Government support and policy regime</li> <li>• Customs clearance and tariff systems</li> <li>• Taxes and charges arrangement for the industry</li> <li>• Legal system</li> </ul>
<p><b>Infrastructure &amp; Location</b></p> <ul style="list-style-type: none"> <li>• Public infrastructure, e.g. seaport and airport</li> <li>• Availability of appropriate RDC facilities</li> <li>• Connectivity/connections</li> <li>• Geographical Location</li> </ul>	<p><b>General Environment</b></p> <ul style="list-style-type: none"> <li>• Operational flexibility</li> <li>• Availability of logistics professionals</li> <li>• Efficiency of business environment</li> <li>• Supportive services</li> </ul>

Source: BMT analysis based on stakeholders' consultations.

In the following sections, the direct competitors of Hong Kong (as mentioned in Section 5.2.1) are compared with Hong Kong regarding the identified KPI. The assessment is interpreted using the Harvey Balls based on stakeholders' feedback.

**5.4.2 Cost**

As illustrated in the Table below, Hong Kong is widely considered the least competitive in terms of cost. In particular, the soaring property price and rental costs pose a negative impact on Hong Kong's logistics development.

Hong Kong is among the Top 3 most expensive cities (after Tokyo and London) in terms of global prime warehouse rentals. Landlords often only offer short term leases (< 3 years), which makes it hard for logistics service providers to justify any investments in automated equipment.

Additionally, the shortage of low skilled labour in HK continues. The situation did not improve even after the implementation of minimum wage. Major logistics services providers are continuously losing their frontline workers.

The overall cost in Singapore is also at a high level, especially for rental and labour costs. As representatives of mainland China logistics cities, Shanghai and Shenzhen benefit from relatively low costs. Of the two, Shenzhen is regarded as the most competitive in logistics costs.

**Table 5.8 KPI Comparison – Cost**

Factor / Region	Hong Kong	Shenzhen	Shanghai	Singapore
Land/rental cost	●	●	●	●
Labour cost	●	●	●	●
Operating cost e.g. truck, terminal, electricity	●	●	●	●

Green = most competitive, pink = least competitive

○ not competitive at all      ◐ neutral      ● extremely competitive

Source: BMT analysis based on stakeholders' consultations.

**5.4.3 Public Services**

Singapore Government is considered most active in supporting logistics development. The Singaporean Government actively reaches out to promote the Singaporean logistics industry and attract investment. They also create relationships at the corporate level with companies who have potential to set up logistics centres in Singapore. Various incentive policies (such as tax breaks and other fiscal policies) are also deployed in Singapore to attract business partners.

On the other hand, customs procedures in Hong Kong and Singapore are considered straightforward and convenient. Both cities are well-known as tax haven with simple taxation systems.

Customs and legal systems in China are often mentioned as weaknesses, involving complicated paperwork and procedures, service inconsistencies and higher rate of cargo inspection.

**Table 5.9 KPI Comparison – Public Services**

Factor / Region	Hong Kong	Shenzhen	Shanghai	Singapore
Government support and policy regime	●	●	●	●
Customs clearance and tariff systems	●	●	●	●
Taxes and charges arrangement	●	●	●	●
Legal system	●	●	●	●

Green = most competitive, pink = least competitive

○ not competitive at all      ◐ neutral      ● extremely competitive

Source: BMT analysis based on stakeholders' consultations.

**5.4.4 Infrastructure and Location**

With well-developed logistics infrastructure (e.g., seaports, airports, roads), Singapore, Shanghai and Hong Kong are considered to have stronger sea connectivity, followed by Shenzhen.

Airports in Hong Kong, Singapore and Shanghai are among the busiest in the world and are well connected internationally.

Hong Kong has a unique advantage with both its airport and port having excellent connectivity. This puts Hong Kong in a particularly advantageous situation for intermodal transport and transshipment business; providing logistics users with great flexibility in their selection of transportation mode.

Hong Kong is geographically located at the heart of Asia and has strong linkage to Mainland China.

**Table 5.10 KPI Comparison – Infrastructure and Location**

Factor / Region	Hong Kong	Shenzhen	Shanghai	Singapore
Public infrastructure	●	●	●	●
Availability of appropriate logistics facilities	●	●	●	●
Connectivity / connections	●	●	●	●
Geographical location	●	●	●	●

Green = most competitive, pink = least competitive

○ not competitive at all    ● neutral    ● extremely competitive

Source: BMT analysis based on stakeholders' consultations.

**5.4.5 General Environment**

Services offered by logistics service providers in Hong Kong and Singapore are perceived as high quality and flexible. Their general business environment is also considered more efficient than the mainland competitors.

Mainland cities have an advantage in providing labour intensive services, such as labelling. Shanghai is aggressively catching up in improving its services, but the gap will need considerable time and effort to cover.

Singapore has attracted a large number of industry professionals and new talent by introducing career portal and career catalogues.

**Table 5.11 KPI Comparison – General Environment**

Factor / Region	Hong Kong	Shenzhen	Shanghai	Singapore
Government support and policy regime	●	●	●	●
Customs clearance and tariff systems	●	●	●	●
Taxes and charges arrangement for the industry	●	●	●	●
Legal system	●	●	●	●

Green = most competitive, pink = least competitive

○ not competitive at all    ● neutral    ● extremely competitive

Source: BMT analysis based on stakeholders' consultations.

**5.4.6 Summary of KPI Comparison**

Hong Kong and Singapore are considered highly competitive logistics hubs; while Shanghai and Shenzhen are operating at a lower quality level.

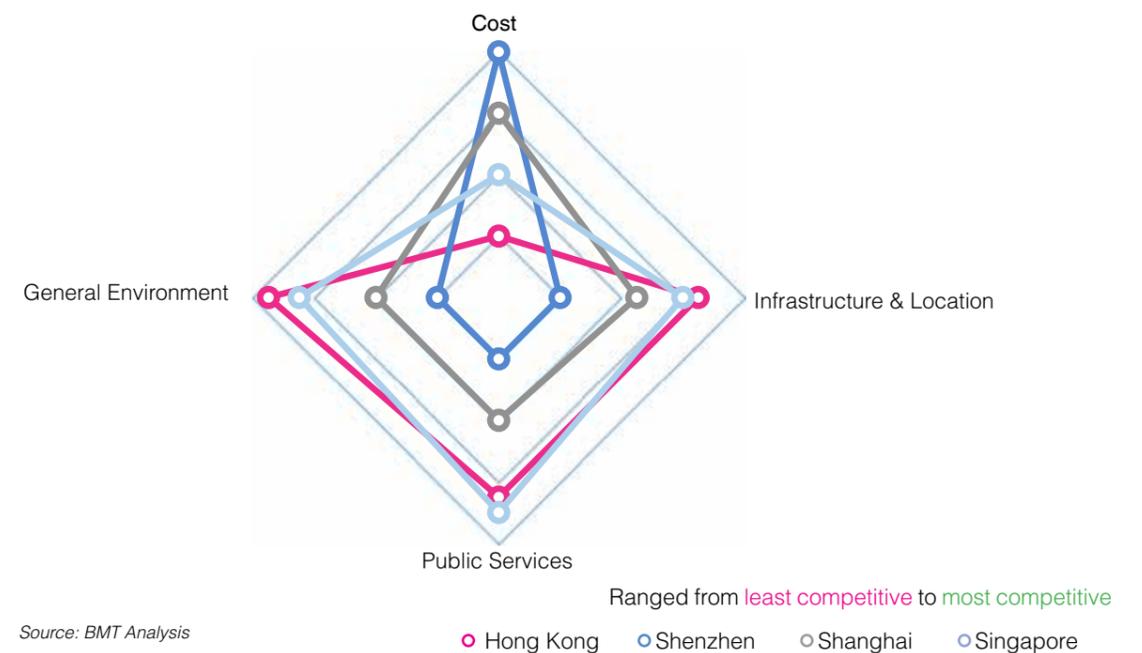
In particular, Hong Kong has an apparent disadvantage in costs, making it less attractive to newcomers. This also does harm to the long term sustainable development of Hong Kong logistics.

Shenzhen may pose a threat to Hong Kong regarding sea exports which are primarily lower value cargo.

On the other hand, Hong Kong and Singapore compete in high value added air cargo.

Shanghai may not be an immediate threat, but can pose a challenge to HK with the maturing of its financial and logistics services.

**Figure 5.8 Summary of the KPI Comparison**



## 5.5 SWOT of Hong Kong Logistics

A detailed SWOT analysis of Hong Kong's Logistics industry is shown below to articulate the key issues that affect the development of Hong Kong's Logistics sector.

**Table 5.12 SWOT of Hong Kong Logistics**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>Strategic location at the heart of Asia and the gateway to the Chinese mainland</li> <li>Freeport</li> <li>No 1 airport for air cargo and No. 4 for sea cargo</li> <li>Flexibility – Combination of free port, airport and seaport</li> <li>Efficient customs procedures</li> <li>Simple and low tax regime with a corporate profits tax of 16.5%</li> <li>Clean government and sound legal system, which offer good protection to intellectual property rights</li> <li>Free flow of capital and information</li> <li>Highly qualified logistics professionals</li> </ul>	<ul style="list-style-type: none"> <li>Insufficient land for warehouse development</li> <li>High rental costs, typically with short-term tenancy and high down payments</li> <li>High labour costs</li> <li>Lack of warehouse workers (relative to China)</li> <li>Lack of appropriate logistics facilities</li> <li>Insufficient IT adoption (relative to Singapore)</li> <li>Lack of industry specific policies to promote the logistics industry</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>Growing domestic demand in Asia and mainland China</li> <li>Prominent intra-Asia trade</li> <li>Growing affluence – higher demand for high-value goods</li> <li>Would be accessible to western PRD through Hong Kong-Zhuhai-Macao Bridge (HZMB) under construction</li> </ul>	<ul style="list-style-type: none"> <li>Heated property market, surging land costs</li> <li>Increasing competitiveness of Singaporean logistics</li> <li>Mainland China hubs offer cheaper land, and are improving customs and warehouse quality</li> <li>Rising of new competitors with regards to aviation e.g. Guangzhou Airport and trading e.g. Shanghai FTZ</li> </ul>

Source: BMT

## 6 Stakeholders' Feedback

### 6.1 Stakeholders' Consultations

As mentioned earlier, consultations with the industrial stakeholders were conducted including airlines, shipping lines, port operators, warehouse operators, freight forwarders, logistics associations and government entities.

In this Chapter, we summarised the views of the industrial stakeholders with regards to the challenges, bottlenecks and future prospects of the Hong Kong logistics sector.

### 6.2 Bottlenecks of the Logistics Sector

#### 6.2.1 Increasing Cost Pressure

Aligned with the competitiveness assessment, it is almost unanimously agreed by the industrial stakeholders that the logistics businesses in Hong Kong face significant cost pressure. The surge of land / rental costs in recent years made Hong Kong one of the most expensive cities for logistics businesses. As reported by the stakeholders, the rental cost in Hong Kong was about 3 times as that in Shenzhen.

**Table 6.1 Top Five Industrial Warehouse Rents\* (December 2011)**

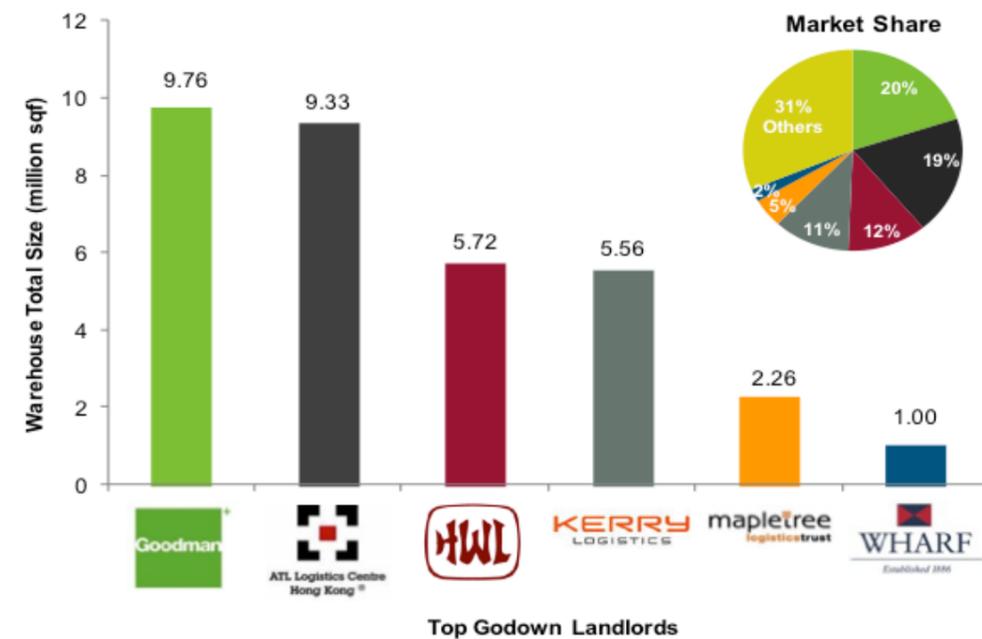
City	Prime Warehouse Rent (HKD/sqf/month)	6 - Month Change (Local Currency, %)
Tokyo	15.0	-3.0%
London - Heathrow	13.6	3.8%
Hong Kong	13.3	8.1%
Singapore	12.2	6.8%
Zurich	11.6	0.0%

Source: Colliers International

Note: \* Prime warehouse space is defined as warehouse space measuring 20,000 sqf or more, with up to 15 percent of office space.

Moreover, the provision of warehousing space in Hong Kong is highly concentrated where about 70% was offered by the Top 5 major landlords. This leads to the imbalance of negotiation power between the landlords and the renters of SMEs (Small Medium Enterprises).

Figure 6.2 Top Warehouse Landlords in Hong Kong



Source: HKTDC Research

In particular, the sustained high rental costs reflect:

- Shortage of sizable land for logistics purpose;
- Shortage of long term / designated rental conditions – lease contracts with SMEs are usually signed for less than 3 years period;
- Shortage of dedicated warehouses built for modernised distribution services - low number of truck docks, low ceiling, insufficient lifts, etc;
- Shortage of standard warehouse for short-term lease and cargo dispatching;

The high land / rental costs significantly increase operating costs. The short term contract conditions further make it difficult for the warehouse operators to plan for long term development. As a result, warehouse operators are more reluctant to invest in facilities and businesses. This weakens Hong Kong's competitiveness, especially considering the city's target to handle more high value added products where dedicated facilities and services are required.

### 6.2.2 Insufficient Labour Pool

It is commonly reported by the logistics industry that labour shortage exists in both low skilled workforce and professional talents.

Despite the launch and renewal of the "Minimum Wage Ordinance", the logistics industry continues to face difficulties in attracting young talent. This is due to the "sunset industry" image of the logistics industry in Hong Kong, and the public perception of jobs in the logistics industry (especially for frontline labours such as truck drivers, crane operators and stevedores) to be menial and demeaning. This perception worsened after several dock strikes in 2013 in which some extremely poor working conditions of the dock workers were revealed.

Labour shortage of logistics professionals also exists in Hong Kong. In general, the professional logistics training in Hong Kong provided by educational institutes and trade organisations are considered insufficient, especially compared to its competitors in Singapore and Shanghai. The increase of living costs in Hong Kong may also drive international talent away from the logistics businesses in Hong Kong.

### 6.2.3 Lack of Policy Support

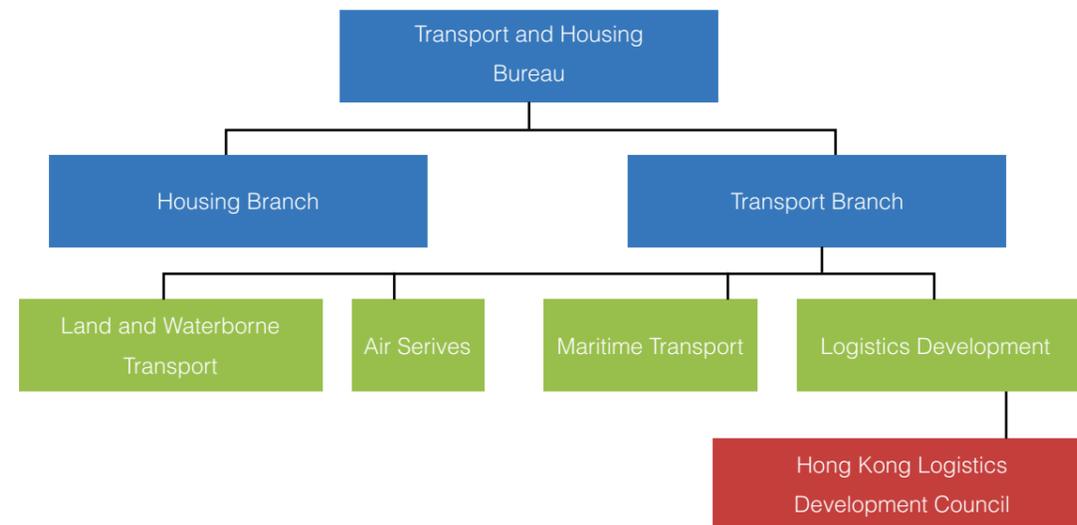
As analysed in Section 3.1, policy supporting the logistics industry was minimal in the past decade. Apart from the infrastructure plan determined a long time ago, most of the public investments in infrastructure and facilities were significantly delayed or put on hold. Contrary to the substantial development and expansion plans in the competing logistics hubs, Hong Kong's logistics industry had no major logistics parks / ports / airport runways completed in the past decade, resulting in lower confidence of the industrial stakeholders in the long term prospective of the industry.

As analysed in Section 5.3, the overall policy support to the logistics industry in Hong Kong was also considered inadequate. Apart from the traditional advantages of being a Free Port and Tax Haven, there are no major favourable policies to support the Hong Kong logistics industry. The lack of policy support is particularly obvious compared to Singapore in which the government is renowned to be proactive in supporting its logistics development.

### 6.2.4 Inefficient Government Structure

The stakeholders' feedback revealed that the current structure of the government entities was not considered efficient in responding to logistics issues.

Currently in Hong Kong, the government agency responsible for logistics issues is the Transport and Housing Bureau (THB). The organisation structure of THB is shown in the following figure.

**Figure 6.3 Organisation Structure of THB**

Source: HKSAR

It is widely commented by the industrial stakeholders that and logistics and trade together are regarded as one of the four pillar industries in Hong Kong. Logistics provides vital support to trade. The current government structure, however, with the two sectors under different bureaus is not the most efficient in facilitating such collaborations. The two would be more reasonably grouped for close interaction. It would be more effective to reallocate logistics under the Commerce & Economic Development Bureau at a level suitably reflecting its importance as an economic driver.

The stakeholders' consultations also revealed that responses from the government are not timely. The existing employment mechanism requires some government staff (such as the Administrative Officer position) to be rotated every 3-5 years. Their short term stay in a department makes it difficult to gain experience, assess and determine major developments / plans. It also makes it difficult to carry out sustainable communication with the government when the contacts change every 3-5 years.

To further develop Hong Kong into a high end logistics hub, integrated support across bureaus / departments is necessary. This may include Innovation and Technology Commission, Invest Hong Kong, Trade and Industry Department, etc. It is recommended by industrial stakeholders that a dedicated department / office / statutory body can be established to manage and promote the entire Hong Kong logistics sector.

## 7 The Way Forward

As mentioned in previous chapters, the growth of Hong Kong's logistics sector is facing challenges and the key bottlenecks have been identified. In response to these, the following aspects for further improvement were analysed.

### 7.1 Review of Land Provision

As reflected in the stakeholders' consultations, Hong Kong is short of purpose-built logistics facilities and warehouse space. This is due to the pause of new land provision in the last decade.

From 2000 to now, a total of 6.9 million sqf of warehouse space was provided, including the Interlink built in 2012 (GFA: 2.4 million sqf) and Cathay Pacific Cargo Terminal built in 2013 (GFA: 2.6 million sqf). This totalled to 51.1 million sqf of warehousing space in Hong Kong by 2013.

Two new storage areas are planned for release in 2014-2015, aiming to add 2.1 million sqf to the total area supply.

For the purpose of long term sustainable growth, the industry requires a modernised logistics park with enough space to accommodate various value added logistics services. A review of the potential land for logistics purposes recommended by government is provided below.

#### 7.1.1 Potential Land for Logistics Use

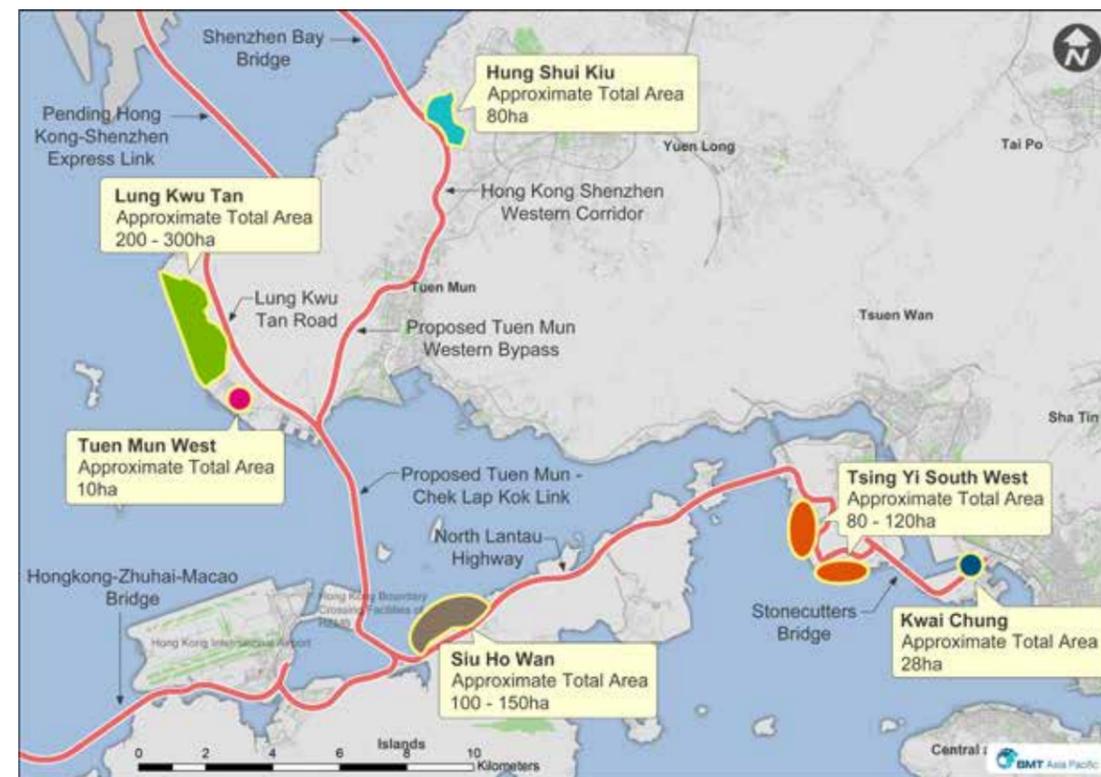
To facilitate sustainable development of the Hong Kong logistics industry, sizable, dedicated land for logistics use is crucial. Such piece of land should be large enough for both logistics principals and SMEs to co-exist and operate as a cluster. Common facilities such as customs office, inspection docks, x-ray machines, etc. can be introduced to create synergy. Here we list out the main land selection considerations for reference:

- Considerable size,
- Low land premium,
- Close proximity to sea ports and airport for intermodal,
- Easy access to major truck routes and highways,
- Away from city centres or commercial districts to avoid urban traffic, and
- Easy access from residential districts for attracting medium to low skill labour

The considerable land size for logistics use is recommended to be at least 70 ha<sup>7</sup> in a recent report by HKU. The size was estimated by pooling the preferred locations and sizes indicated by industry stakeholders through a survey. The potential land needed for the logistics park would likely be more than 70ha, as in addition to meeting the current shortage, freight forwarders and warehouse operators now operating in old industrial buildings with obsolete facilities should also move into the new dedicated site. The figure of 70ha is merely for reference and a more thorough study is needed to determine the actual need.

Based on the feedback from industry stakeholders and the latest information on land supply strategy, the following six sites are identified as potential sites for logistics development.

**Figure 7.1 Potential Land for Logistics Use**



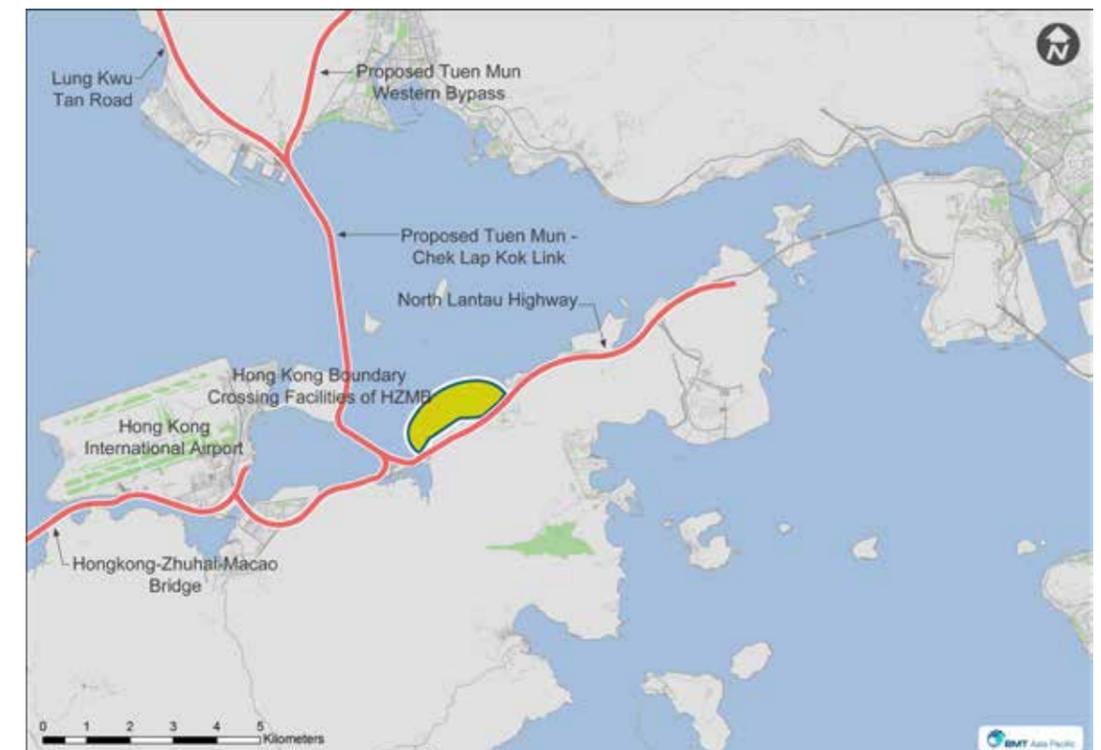
Source: BMT & Enhancing Land Supply Strategy, Hong Kong Transport and Housing Bureau

### 7.1.2 Siu Ho Wan

The potential reclamation site at Siu Ho Wan is located near the airport and can link up with major trunk road and infrastructure such as Hong Kong-Zhuhai- Macau Bridge, Tuen Mun – Chek Lap Kok Link and North Lantau Highway. The total reclamation area is about 100-150ha.

The possibility of developing a logistics park at Siu Ho Wan was initiated in 2001/02, when the Government conducted follow-up studies of the “Competitive Strategy and Master Plan to Strengthen Hong Kong’s role as the Preferred International and Regional Transportation and Logistics Hub”. In the 2003 Policy Address, development of Lantau Logistics Park was mentioned. However, the planning process was on hold ever since. It was last mentioned in the 2007 Revised Concept Plan for Lantau stating that the site has potential to be developed into a logistics park.

**Figure 7.2 Potential Land for Logistics Use - Siu Ho Wan**



Source: BMT & Enhancing Land Supply Strategy

#### Advantages

- The potential site is situated close to the airport and well linked with the seaports in Tsing Yi. It is suitable for intermodal transport.
- With the completion of HZMB, the potential site is also an ideal location to process the cargoes from/to PRD.

<sup>7</sup> Hong Kong's Logistics Industry and Land Supply -An Opinion Survey", HKU & bpsglobal, Jul 2014

### Challenges

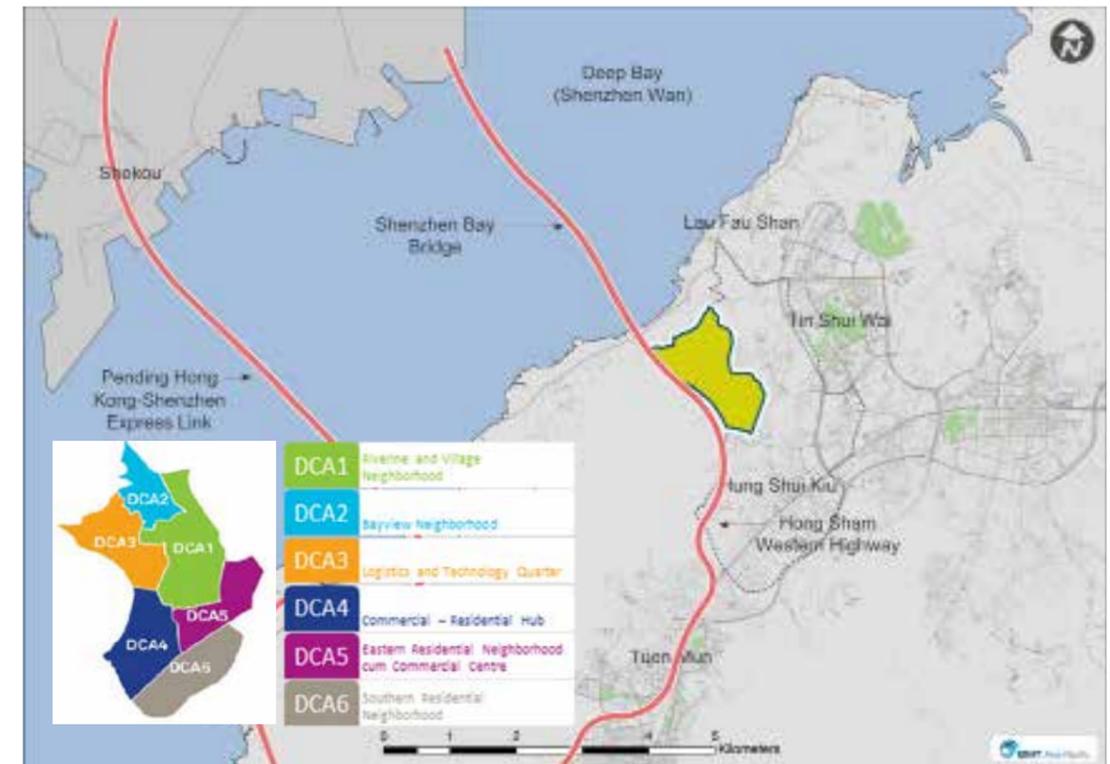
- The development may raise environmental issues, especially for the Chinese White Dolphins.
- High reclamation cost is expected.
- Increasing opportunity cost of land due to the surging costs of residential and commercial use which has been proposed in the Tung Chung Expansion Scheme undergoing public consultation.
- The capacity of external and internal transport links (such as highways) need to be carefully planned to avoid traffic jams.
- Possible airport height restrictions might constrain building heights and developable area. The plan should also take into account the potential development constraint due to the noise induced by aircraft.
- Development restrictions exist to protect HK Disneyland from visual intrusion and incompatible uses.

In summary, the potential reclamation site at Siu Ho Wan could be a designated sizable land for long term logistics development.

### 7.1.3 Hung Shui Kiu

As a part of the studied area under the “Planning and Development Study on North West New Territories (2003)”, Hung Shui Kiu (HSK) was identified as a suitable New Development Area (NDA) to cater to the long-term multi-purpose development needs in Hong Kong. The planning for NDAs in HSK and the North East New Territories was announced in the 2007/08 Policy Address. Currently, the land is mainly occupied by open storage / port back-up uses (27%) and village developments (21%). The total planning area of Logistics and Technology Quarter is about 72 ha (62 ha for Logistics industry and 10 ha for Information Technology & Telecommunication industries). The detailed plan is still under public consultations.

Figure 7.3 Potential Land for Logistics Use - Hung Shui Kiu



Source: BMT & Hung Shui Kiu New Development Area

### Advantages

- The potential site is accessible to cross boundary highway network via Shenzhen Bay Bridge and Guangshen Yanjiang Expressway;
- The use of existing land could be cost effective compared to potential reclamation sites.

### Challenges

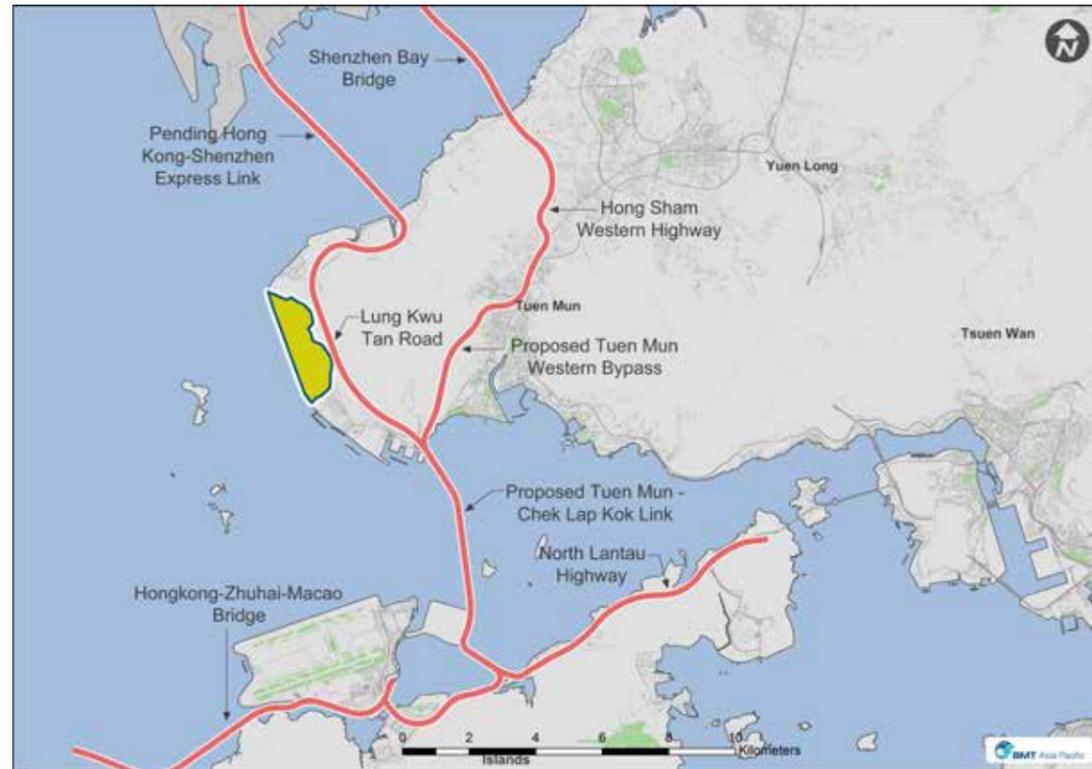
- The site development requires the development right of indigenous villagers, which could be difficult to obtain under the current political circumstances.
- Significant compensation expected for relocating local residents.
- The project needs to take into consideration the preservation of historic and cultural heritage.
- If Hung Shui Kiu is to be developed into a central business district, it will not be suitable to have a logistics centre nearby.

The land premium both financially and socially for logistics use could be too high in Hung Shui Kiu as it is a major source of land supply to meet both housing and commercial needs.

### 7.1.4 Lung Kwu Tanu

Lung Kwu Tan is originally planned for land reserve, residential, industrial (surplus fill materials and contaminated mud handling) and other uses. The site requires reclamation of an area of 200 – 300 ha. The potential site will connect to major infrastructure including proposed Tuen Mun Western Bypass and Tuen Mun-Chek Lap Kok Link to Lantau, Tuen Mun Road to Kowloon and Route 9 to North New Territories. Detailed feasibility studies for the reclamation are under investigation.

**Figure 7.4 Potential Land for Logistics Use – Lung Kwu Tan**



Source: BMT & Enhancing Land Supply Strategy

#### Advantages

- Connecting to Tuen Mun – Chek Lap Kok Link (TM-CLKL), making the site easily accessible to/from the airport.
- Close to boundary crossing points and River Trade Terminal

#### Challenges

- Chinese White Dolphins are active in nearby waters. The proposed site needs to be refined to avoid encroachment on Chinese White Dolphin active spot.
- The reclamation needs to take into considerations existing natural shorelines and beaches.
- Power station and natural gas stations are located nearby.
- High reclamation cost is expected.
- Increasing opportunity cost of land due to the surging costs of the residential and commercial land use.

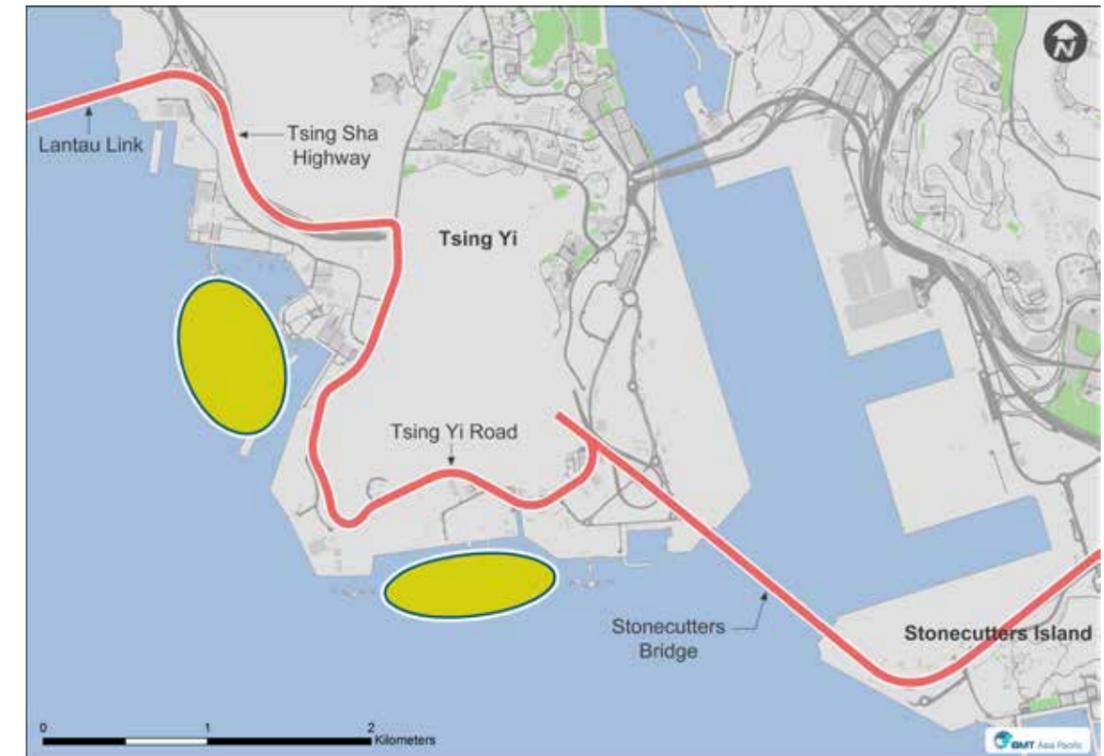
The site at Lung Kwu Tan has the potential to become an integrated industrial zone with a designated logistics park, provided the road capacity is sufficient.

### 7.1.5 Tsing Yi Southwest

Located close to the existing Kwai Tsing Container Terminals (KTCT) area, the size of the potential reclamation land at Tsing Yi Southwest totalled about 80 – 120ha (including two sites as shown in the figure) and is designed for the development of Container Terminal 10 (CT10). This project was initiated in the early 2000s but was going through rounds of feasibility studies. The latest document was released in 2008 suggesting building 8 x 400m berths.

The Strategic Development Plan for Hong Kong Port 2030 is under way to update port cargo growth forecasts and explore how to make better use of the existing port facilities to support future development.

**Figure 7.5 Potential Land for Logistics Use – Tsing Yi Southwest**



Source: BMT & Enhancing Land Supply Strategy

### Advantages

- The development of CT10 at Tsing Yi Southwest could create synergy with the existing terminals at Tsing Yi and Kwai Chung.

### Challenges

- With the slow (or static) growth of container throughput at KTCT, the demand for a new container terminal is questionable.
- The development requires a relocation of exiting oil depots, which leads to high reprovisioning costs.
- High reclamation cost is expected.
- Increasing traffic pressure is expected should more cargoes be transferred to the site.
- Increasing opportunity cost of land due to the surging costs of the residential and commercial land use.

In summary, the potential reclamation site at Tsing Yi Southwest is planned for the development of Container Terminal 10. However, the development may face high reclamation and construction costs while the demand growth for cargo throughput has been slowing down.

**Figure 7.6 Potential Land for Logistics Use – Kwai Chung**



Source: BMT & Hong Kong Transport & Housing Bureau

### 7.1.6 Kwai Chung

The potential land for logistics-use (including three sites shown in the following figure) in Kwai Chung was first mentioned in LegCo Report 2011. With a total area of around 28 hectares, these sites were currently used as backup areas and storage yards for containers. The sites are located near the Kwai Tsing Container Terminal and can link up with major high roads and infrastructure such as Tsing Ma Bridge, North Lantau Link and the Hong Kong International Airport in Chek Lap Kok.

As per government budget plan 2014/2015, the authority is studying to consolidate these sites and make better utilisation of the land. This part of area may be available for further logistics development in the short to medium term and as a support for the industry in the long term.

#### Advantages

- Save transportation time and cost since the potential site is located close to the Kwai Tsing Container Terminal
- Well-linked transportation and close to Lai Chi Kok industrial area
- Low development cost given it is already in logistics use
- Low relocation and reprovision cost
- May create synergy with the development of Container Terminal 10
- The use of existing land is cost effective compare to reclamation site

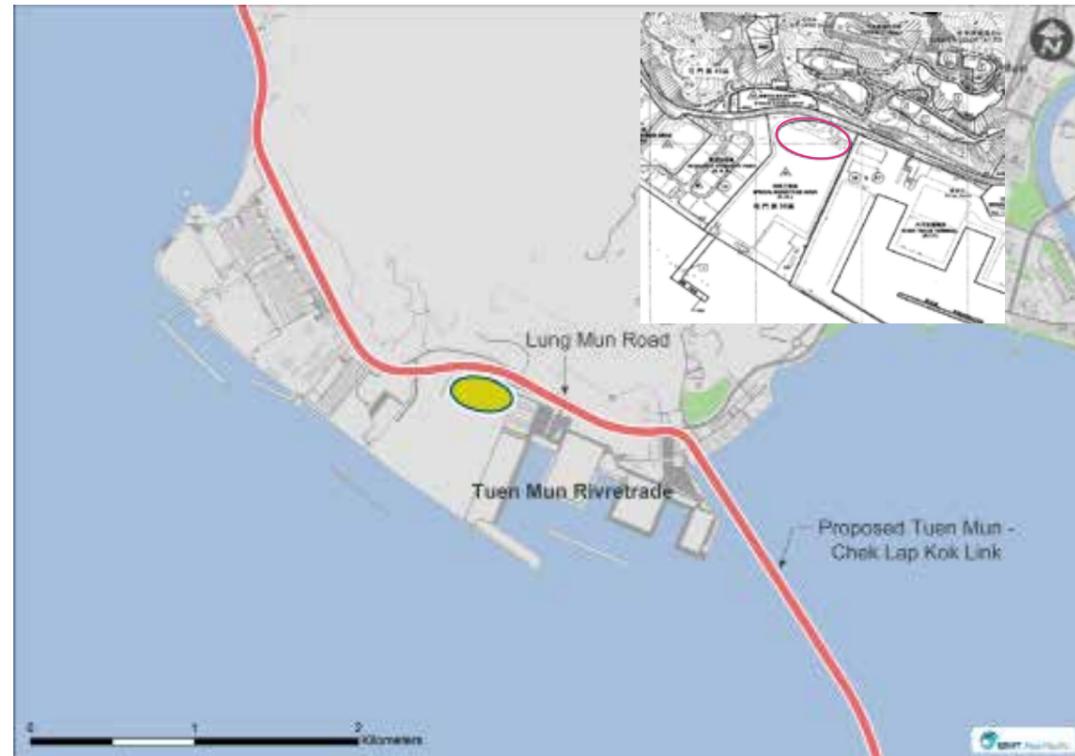
#### Challenges

- Increasing opportunity cost due to surging demand for commercial and residential
- Limited land size compare to other sites
- Adding pressure on existing traffic
- Adjustment to existing roadwork is expected when more cargoes are conveyed to the site

In summary, the potential site at Kwai Chung is planned for logistics development and hence save time and cost relative to reclamation site. However, the development maybe restricted by its size and also increases pressure on local traffic.

### 7.1.7 Tuen Mun West and Tsing Yi

In the Budget Plan 2013, two pieces of land were allocated for logistics facility development (multi-storey warehouse, over 300,000 square meters of floor area), i.e., Tuen Mun West (12ha) and Tsing Yi (2ha). The development could help release the pressure of land supply in the short to medium term.

**Figure 7.7 Potential Land for Logistics Use – Tuen Mun West**

Source: BMT and Hong Kong Transport & Housing Bureau

**Figure 7.8 Potential Land for Logistics Use – Tsing Yi**

Source: BMT and Hong Kong Transport & Housing Bureau

There are views that 62 hectares earmarked for logistics use in Hung Shui Kiu should eventually give way for urban development while other sites are either too small for providing long term industry solutions, or currently occupied by other uses. Therefore, the most likely choice would be Lung Kwu Tan and Siu Ho Wan. Lung Kwu Tan has an advantage of being close to River Trade Terminal. Siu Ho Wan has the issue of Chinese White Dolphin to overcome, but if the government could move the Siu Ho Wan. Sewerage Treatment Works and other utilities are located there underground, the scale of reclamation needed and therefore the potential environmental impact would be minimised significantly. This would then be a location with obvious advantages in intermodal operations. Besides the aforementioned six potential sites, it is recommended that the government conducts further in-depth studies to search for other possible sites to develop a logistics park.

## 7.2 Operation Conditions of Logistics Facilities

### 7.2.1 Business Model for Logistics Facilities

In addition to the static land supply, the surging rental cost of logistics facilities are also due to the highly concentrated market in Hong Kong leading to the imbalanced negotiation power of owners and users.

As mentioned earlier, the following issues are reflected by the stakeholders during the consultations.

- Commonly, the development of logistics facilities (such as warehouses, storage) is in the form of open land bidding. Due to the huge land premium incurred, normally only major consortia/international corporations could be successful in the bidding.
- Infrastructure developments in Hong Kong are generally under the BOT (Build-Operate-Transfer) or BOOT (Build-Own-Operate-Transfer) contracts. Upon completion, the developers are granted for operation right for a significant period of time to collect upfront capital costs.
- In the pursuit for profits, SMEs are less competitive and are often given lease contracts of short period (less than 3 years), making it difficult them to expand or enhance services. Under the current economic climate, the surging rental cost further weakens their profitability.

Land is an essential element for the development of Hong Kong's logistics industry. To handle the major concerns of increasing rental cost and the duration of lease, more government involvement as a regulator is preferred.

The government may expand its role to be:

- A developer – the government may increase the shareholding (and hence regulatory power) by investing in the form of land supply and/or upfront capital costs;
- A manager – the government may sit in the board, in some form, to enhance its regulatory position and monitor the development goals and strategies, in order to align with the public interests.
- Being in the management position does not necessarily make the government an operator of the facilities. The purpose is to ensure the goal of making profits (as a private corporation) is always in line with the public interests and social welfare.

**Figure 7.9 Indicative PPP Methods**



### 7.2.2 Benchmarking Case: Hong Kong Science & Technology Park

A benchmarking case of Hong Kong Science & Technology Park was analysed, to discuss the possibility of applying the similar business model to logistics infrastructure/facility development.

The Science Park project was one of the major commitments made by the Chief Executive in his Policy Address in October 1997. It provides office premises in multi-tenant buildings for rent to technology-based companies and land plots for lease to firms which wish to purpose-build their own premises for intensive R&D activities.

#### Organisation and Management

Hong Kong Science & Technology Parks Corporation (HKSTPC) is a statutory corporation wholly-owned by the Government. HKSTPC is governed by a Board of Directors. The Chairman is appointed by the Chief Executive, and other members by the Financial Secretary. The Permanent Secretary of Commerce, Industry and Technology (Communications and Technology) is an ex-officio member on the Board. As stipulated in the Hong Kong Science and Technology Parks Corporation Ordinance, the HKSTPC conducts its businesses according to prudent commercial principles.

#### Funding and rental rate

In accordance with section 7 of the Hong Kong Science and Technology Parks (HKSTPC) Ordinance, the HKSTPC shall conduct its business according to prudent commercial principles. It does not receive any recurrent subvention from Government. The rentals charged by HKSTPC for Science Park are set with reference to market rentals. The rental level is reviewed annually and approved by the Board of HKSTPC based on a market survey. LC paper No. FC100/09-10(01)

We expect the logistics infrastructure / facility may apply the similar business model of HKSTP. A management corporation should be established to plan, develop and manage the logistics infrastructure / facility. In the long run, this Corporation should be able to conduct its business according to prudent commercial principles and to meet recurrent expenses from its income. The logistics infrastructure / facility should not rely on government financing indefinitely, government would need to provide sufficient resources to meet its operating expenses to cover the initial operating deficit before it reaches the break-even point.

## 7.3 Port Relocation

### 7.3.1 Possible Port Relocation

It is also reflected in the stakeholders' consultations that relocation of the current Kwai Tsing Container Terminals (KTCT) may be a possible strategy for long term development. The idea of relocation is based on the following:

- The period of rapid growth for HKP is over. In recent years, the total throughput at HKP remained relatively static. The relocation of port may not require substantial area of land supply but simply to maintain the critical mass for Hong Kong as a key logistics hub.
- The design of KTCT was for direct cargoes (i.e., gate in/out cargoes). However, the terminals now serve over 65% of transshipment cargoes, which require increasing inter-terminal movements. The current "split port" configurations do not fit such purposes making the design out-dated for current operations. The industry expects a new port design that can be applied to better accommodate the needs of transshipment operations.
- The market trends have envisaged more and more cargo to be handled by multi-transport (logistics) modes (e.g., air-sea, land-sea, river-sea, or vice versa) therefore HK port ideally should have close proximity to other infrastructure, such as airport, warehouses, depots, logistics parks, etc.
- Over the year, Kwai Tsing has developed into a populated district. HK Port should be away from the cosmopolitan areas or city centre where any traffic congestion often creates significant impacts to citizens' life.
- The nearby Kwai Chung is no longer a key production center in Hong Kong.

Notwithstanding, the immediate challenge of the possible port relocation is to find a suitable site for the relocation. This requires further investigations and consultations with the industry. Also, the current port site at Kwai Chung and Tsing Yi Basin could be redeveloped for commercial and residential use, integrated with the community development in this district.

### 7.3.2 Benchmarking Case: Shanghai

Port relocation is not a new topic in the logistics world nowadays. Recently, Shanghai, Singapore and Busan are or have been going through the relocation of their key port terminals to a new site for long term development.

The relocation of Shanghai Port is a major project approved by central government, in order to solve the inadequate draft to accommodate mega vessels at the existing Waigaoqiao port area. According to the Former Premier of PRC Wen Jiabao and other government officials,

- Shanghai to become an international shipping centre and expect to be achieved by 2020;
- Yangshan will become the biggest international transshipment port in North-East Asia;
- Development of Yangshan Deep Sea Port is included in China's 12th Five-Year Plan.

The development of Yangshan Port started in 2002. Terminal I and II were completed for operation in 2005 and 2006. In 2007 and 2008, phase III part one & part two were commissioned. Further expansion plan, i.e., Phase IV, is expected in 2015.

To facilitate the relocation, the Shanghai Port Authority decided that all European services to and from Shanghai should be shifted to Yangshan.

- The majority of service operators followed this rule, especially since SPA presently charges bargain port fees for calls at Yangshan, to compensate for the additional trucking / barging costs from Shanghai to / from Yangshan.
- When terminal two commenced operation, most of the involved shipping companies' transpacific services moved from Waigaoqiao to Yangshan.
- SPA invested in Taicang Port to relocate short haul shipping services to Taicang.

Figure 7.10 Port Relocation in Shanghai



Source: Shanghai International Port

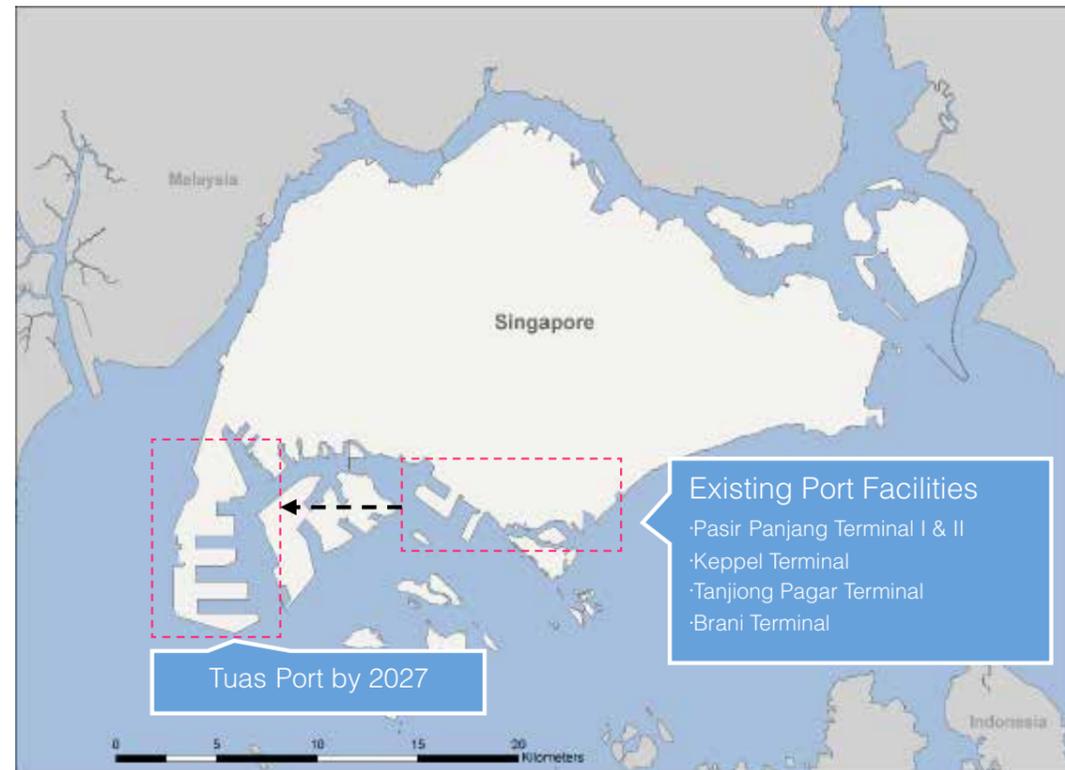
### 7.3.3 Benchmarking Case: Singapore

In Singapore, the port relocation plan was proposed in 2010 by the Government's Economic Strategies Committee. The 2012 Consolidation Plan was carried out determining to relocate all its transshipment operations to Tuas in 10 years' time. The site is located away from the city centre and has more space available for port development.

The first phase of Tuas is scheduled to open in 10 years. All operation shall resume before the 2027 expiration of the existing leases for Singapore's city terminals at Tanjong Pagar, Keppel, and Pulau Brani.

The newly completed Terminals 1 and 2 of Pasir Panjang will be merged in Tuas in the long term. In the meantime, to meet the current demand growth, PSA Singapore is developing Phases 3 and 4 of the Pasir Panjang development with 250 hectares of terminal space, aiming to add 15 new berths.

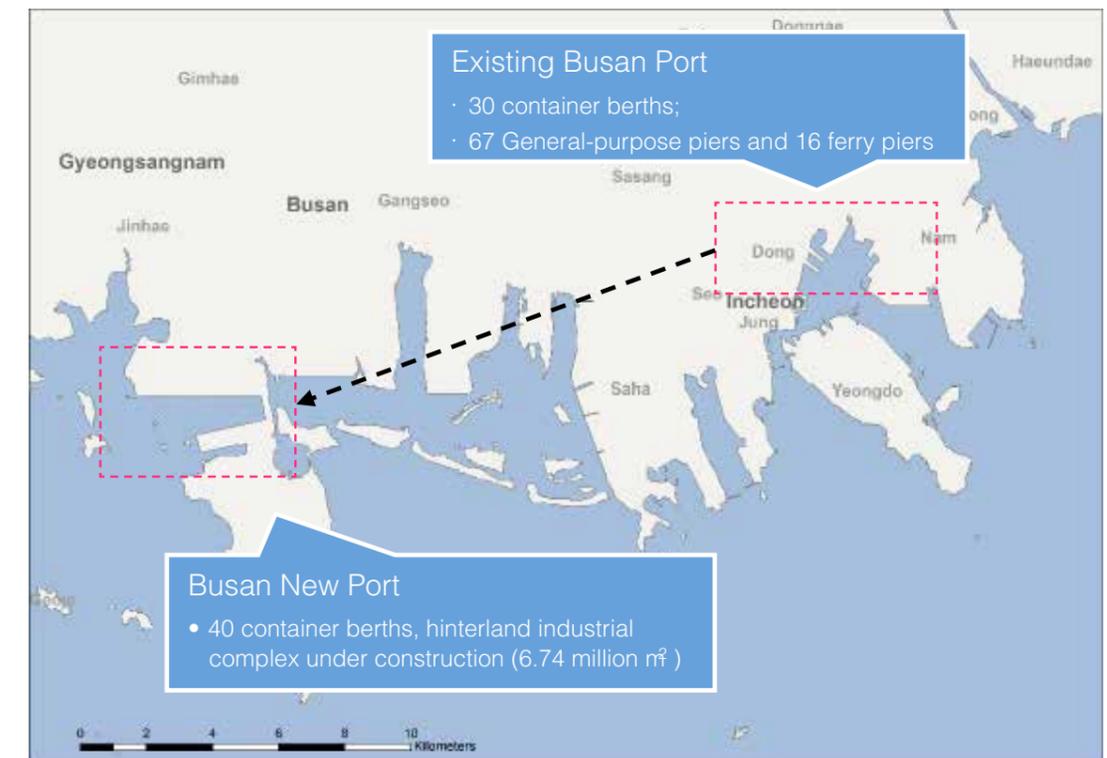
The original site in downtown is designed to be redeveloped for residential and recreation uses.

**Figure 7.11 Port Relocation in Singapore**

Source: Singapore Transport Department

### 7.3.4 Benchmarking Case: Busan, South Korea

Busan North Port is the dominant container terminal in South Korea. The redevelopment of the port began in 2008, and is expected to be completed by the end of 2020.

**Figure 7.12 Port Relocation in Busan**

Source: Vision and Development Project of Busan

By moving the existing terminals to the new port approximately 25km away, the project aims to:

- Redirect the traffic away from the downtown area;
- Improve the port design as a transshipment hub;
- Provide additional space and capacity for future development of the port.

## 7.4 Manpower Enhancement

### 7.4.1 Issues on Labour Supply

As mentioned earlier, the gap of demand and supply of labour for Hong Kong's logistics sector was large. Labour shortages are taking place in both low skill workers and professionals.



#### Low Skilled Workers

##### • Reasons for Shortage

- Some poor working conditions reported at the frontline;
- Migration of low skilled labour to Hong Kong is not allowed;



#### Professionals

##### • Reasons for Shortage

- Training courses from local educational institutes are insufficient;
- Increasing cost of living;
- Less competitive to attract international talents due to issues of education, living conditions, etc.

### 7.4.2 Improve Industry Image

Hong Kong is losing its labour force in the logistics sector at every level of operation. It is not simply due to the tough working condition but also the dying image of the overall logistics industry.

The industry stakeholders agreed that it is essential to improve its image and public awareness of the logistics industries in order to attract new talents. This may requires government policies:

- To support educational institutes and trade organisations to provide logistics training (e.g., setting up educational funds);
- To foster R&D in technology advancement (e.g., IT, automation, e-logistics platform);
- To proactively promote the logistics industries and high value added logistics services in order to improve public image and public awareness.

## 7.5 Policy Support for Logistics Industry

In general, the stakeholders commented that the policy support for Hong Kong logistics sector is insufficient. This is particularly true compared to the government of Singapore which is renowned for being aggressive and decisive. The competitiveness of Hong Kong's logistics industries also largely relies on the policy commitment of the Government of Hong Kong. Facing strong competitors and business bottlenecks, Hong Kong is now at a critical stage of development. Other than the land provision and manpower issues, the following "Wish List" summarises the policy support required by the stakeholders.

- Establish a separate Bureau for the logistics and transportation sector;
- Proactively promote logistics industries through a dedicated government department and/or office, showing presence and facilitating transactions to attract logistics users and service providers;
- Develop industry policy for facilitating long term sustainable development of the logistics industry:
  - Dedicated land for logistics use
  - Manpower development including promotion, training and education,
  - Single window for customs clearance and related import/export practices
- Complete the major infrastructure development such as HZMB, third runway;
- Seek potential cooperation with Zhuhai and Macao by facilitating the HZMB; and
- Develop an e-platform for SMEs and enable paperless electronic documentation.

## References

- “The Four Key Industries and Other Selected Industries in the Hong Kong Economy” Hong Kong Census and Statistics Department, April 2014
- “Hong Kong Annual Digest of Statistics”, Hong Kong Census and Statistics Department, Nov 2013
- “Air Transport Industry in Hong Kong”, Hong Kong Trade Development Council, July 2013
- “Hong Kong Air Cargo Throughput”, Civil Aviation Department, 2013
- “Top Ten World’s Busiest Airports by Cargo Traffic, 2012”, Airport Council International, 2013
- “HKIA Master Plan 2030”, Hong Kong Airport Authority
- “Key Statistics on Business Performance and Operating Characteristics of the Transportation, Storage and Courier Services Sector in 2012”, Hong Kong Census and Statistics Department, 2013
- “Top 1- Container Terminals in Cargo Throughput, 2012”, Containerization International, 2013
- Hong Kong Industrial Market Q4 2013, by CBRE Global Research and Consulting, retrieved 2014.
- According to the Rating and Valuation Department, private storage comprises premises designed or adapted for use as godowns, or cold stores, and includes ancillary offices. Premises located within container terminals are included.
- “Hong Kong Property Review 2013” by the Rating and Valuation Department, retrieved 10th June, 2014. Conversion factor from IFA to GFA is 1.3333.
- Legislative Council meetings & Annual Policy Address 2000 – 2012
- World Bank Logistics Performance Index Report 2012
- “Top Five Industrial Warehouse Rents”, Colliers International, Dec 2011
- “Hong Kong’s Logistics Industry and Land Supply – An opinion Survey”, HKU & bpsglobal, Jul 2014

## Acknowledgement



