香港再出發
HONG KONG COALITION

HONG KONG INTERNATIONAL AVIATION HUB

DEVELOPMENT STRATEGY

MAY 2024

Table of Content

Research Background 1

I. Enhance the strategic position of aviation policy to strengthen Hong Kong's competitiveness in the aviation market 4

II. Seize the new opportunity in global transshipment trade 8

III. Leverage the vast economic hinterland of GBA and the Mainland China 11

IV. Strengthen aircraft leasing financing business in Hong Kong 14

V. Develop cutting-edge aviation technologies and establish aviation technology R&D bases 16

Acknowledgement 19

Research Background

As a small and open economy, Hong Kong relies heavily on connectivity to the world for its business activities. As such, the aviation industry plays an important role in supporting Hong Kong's international connections. The *Basic Law* gives the HKSAR Government the responsibility and mission to develop the aviation industry to ensure that Hong Kong's economy and prosperity are based on a solid international network. The *Basic Law* stipulates that "the Government of the Hong Kong Special Administrative Region shall provide conditions and take measures for the maintenance of the status of Hong Kong as a centre of international and regional aviation". It also grants Hong Kong autonomy to negotiate and conclude new air service agreements. The *Outline of the 14th Five-Year Plan* also re-emphasizes support for Hong Kong to enhance its status as an international aviation hub.

Located at the heart of Asia, Hong Kong is bordered by Mainland China to the north, Southeast Asia to the south, Pacific Ocean to the east and Indian Ocean to the west. A four-hour flight can reach most major Asian cities, while a five-hour flight can cover more than half of the world's population. Its prime location makes Hong Kong International Airport (HKIA) one of the busiest aviation hubs in the region. Over the years, HKIA has garnered over 80 "World's Best Airport" awards in recognition of its efficient management, comprehensive support facilities and convenient location.

According to the Airport Authority (AA), HKIA handled 40 million passengers and 276,000 aircraft movements in 2023, representing increases of around 600% and 100% respectively compared to 2022. Total cargo throughput recorded an annual growth of 3.2% to 4.3 million tonnes. HKIA has been named once again the world's busiest cargo airport for 2023, despite overall cargo throughput was below that in the pre-pandemic levels due to geopolitics and complex market environment.

Nevertheless, HKIA has been actively upgrading its own facilities and continuously making new contributions to Hong Kong's social and economic development. The HK$141.5 billion three-runway system (3RS), Hong Kong's largest infrastructure project in recent years, is expected to be completed by the

end of this year, allowing the airport's annual capacity to gradually increase to 120 million passengers and 10 million tonnes of cargo per year. During the eight-year construction period, the HKIA 3RS project overcame a series of unprecedented challenges, including reclaiming about 650 hectares of land using new and more eco-friendly reclamation methods. It is expected that by 2030, the direct and indirect economic benefits of HKIA with 3RS will reach HK$180 billion.

HKIA is striving to transform from a "city airport" to an "Airport City", becoming a commercial and tourism landmark in the Greater Bay Area (GBA). For this purpose, the SKYCITY, a major integrated commercial development project covering an area of more than 25 hectares, includes the Phase 2 expansion of AsiaWorld-Expo with additional exhibition space and Hong Kong's largest indoor performance venue with a capacity of over 20,000 people. AA also plans to construct the Airport Tung Chung Link, an extension of the autonomous transportation system on the Airportcity Link between SKYCITY and the Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Port to Tung Chung Town Centre in the future.

In addition, HKIA commits to sustainable development and has pledged to achieve Net Zero Carbon by 2050. It has set up working groups with its key aviation-related business partners to discuss major environmental challenges, best practices and promote new carbon mitigation measures. Meanwhile, the HKIA Greenovation Fund also assists business partners to pilot carbon reduction technologies.

Apart from building a first-class international airport, Hong Kong also values the development of aviation-related industries, especially in the areas of aircraft leasing and financing and cutting-edge aviation technology. In February 2024, the Legislative Council passed the *Inland Revenue (Amendment) (Aircraft Leasing Tax Concessions) Bill 2023*. The HKSAR Government is also actively implementing five enhancement measures, including providing tax deduction incentives for expenses incurred by aircraft lessors in purchasing aircraft, so as to attract more aircraft leasing companies. It is estimated that after the introduction of the enhancement measures, a total of about 3,100 aircraft will be leased through Hong Kong's platform in the next 20 years,

creating 21,000 jobs and increasing the cumulative gross domestic product by more than HK$400 billion. In the field of aviation technology, the Hong Kong Polytechnic University (PolyU) plays an important role. Its Aviation Services Research Centre (ASRC) have made positive contributions to Hong Kong's advantages in aircraft maintenance, aeronautical materials and structures, aerodynamics and other fields. Overall, Hong Kong's international aviation hub is in a new era of vigorous development.

However, Hong Kong's traditional advantages have been eroded by heightened global economic uncertainty, US-China tensions and geopolitical influences that have shifted trade flows within the region. The manufacturing, tourism and aviation industries in neighbouring cities have increased their competitiveness, putting significant pressure on Hong Kong's growth and development prospects. Against this background, Hong Kong should review the current development of the aviation industry and explore new policies to consolidate and enhance its status as an international aviation hub. This report consists of five sections:

I. Enhance the strategic position of aviation policy to strengthen Hong Kong's competitiveness in the aviation market

II. Seize the new opportunity in global transshipment trade

III. Leverage the vast economic hinterland of GBA and the Mainland China

IV. Strengthen aircraft leasing and financing business in Hong Kong

V. Develop cutting-edge aviation technologies and establish aviation technology R&D bases

I. Enhance the strategic position of aviation policy to strengthen Hong Kong's competitiveness in the aviation market

The aviation industry brings extraordinary economic and social value in today's world. It not only greatly improves the worldwide transportation connectivity, but also promotes the development of tourism, trade and cultural exchanges. It also creates a large number of jobs and drives economic growth. Globally, it has created 11.3 million direct jobs, supported 87.7 million jobs directly or indirectly, and contributed US$3.5 trillion to GDP (equivalent to the 17th largest economy in the world)[1]. From Hong Kong's perspective, the aviation industry is also extremely important. According to a report by the International Air Transport Association (IATA), before the COVID-19 pandemic, the aviation industry supported nearly 330,000 jobs in Hong Kong (including 88,000 direct jobs), contributing US$33 billion to GDP directly or indirectly, accounting for about 10% of Hong Kong's GDP[2].

However, Hong Kong's aviation industry was significantly impacted by the three-year pandemic. Its post-pandemic recovery is not as smooth as expected. Instead, it faces a number of challenges amidst heightened competition from Mainland and international markets. Firstly, the strategic importance of aviation policy is not fully reflected. Hong Kong's aviation industry and related policy formulation mainly focus on transportation-related aspects, potentially overlooking synergies and strategic leverage that could be brought about with integrated consideration of aviation and economic developments. In fact,

---

[1] ATAG (2021), *Supporting economic & social development*, link: https://atag.org/industry-topics/supporting-economic-social-development. Last viewed on March 11, 2024.

[2] Direct and indirect contributions to GDP totaled approximately US$33 billion, including (1) a direct contribution of US$10.4 billion from the aviation industry, (2) a direct contribution of US$6.9 billion from related supply chains, (3) a direct contribution of US$2.6 billion from job creation, and (4) an indirect contribution of US$13 billion from overseas tourists. Source: IATA (2019), The Importance of Air Transport to Hong Kong (SAR), China, link: https://www.iata.org/en/iata-repository/publications/economic-reports/hong-kong--value-of-aviation. Last viewed on March 11, 2024.

aviation policies have a profound influence on the development of international trade, convention and exhibition, tourism and other industries. They also affect Hong Kong's international image, competitiveness and regional economic cooperation. Therefore, Hong Kong should formulate a set of macro, long-term and forward-looking aviation policies.

Secondly, the competition among international aviation hubs is becoming increasingly intense. Over the past decade, based on comparison of international passenger throughput among major airports in the Asia Pacific region, Hong Kong was the leader handling nearly 50 million international passengers in 2010. However, since 2016, due to runway capacity constraint, its growth rate was slower than that of key competitors such as Dubai, Doha, Istanbul, Incheon and Bangkok. By 2019, Dubai's international passenger throughput exceeded 85 million passengers, while the international passenger throughput for Hong Kong, Incheon and Singapore airports was approximately 70 million passengers, forming a multi-hub situation with intense competition in the region. With the launch of 3RS at the end of this year, runway capacity will no longer be constrained, and HKIA's development potential could be further unleashed.

Thirdly, the direct competition within GBA with Shenzhen and Guangzhou airports is intensifying. The *Outline of the 14th Five-Year Plan* clearly proposes to reinforce and strengthen Hong Kong's position as an international aviation hub, but the *14th Five-Year Plan for General Aviation Development* issued by the Civil Aviation Administration of China also stresses the need to speed up the development of international aviation hubs in Guangzhou and Shenzhen and enhance their functions as cargo hubs. This means that all three airports are positioned as international aviation hubs, and all three airports have GBA as their home-market. This would mean inevitable direct competition among the three airports. With the launch of the fourth and fifth runways of Guangzhou Baiyun International Airport and the third runway of Shenzhen Bao'an International Airport, HKIA's hub status will be further challenged.

Fourthly, the lack of market players hindered airline capacity recovery post-pandemic. When comparing with the last month of 2019, the number of operating airlines at HKIA was lower at the end of 2023. During the pandemic,

some airlines redirected their routes to other airports, forming new networks bypassing HKIA. In addition, Hong Kong's market re-opened relatively late after the pandemic and its air services policy is not as enterprising as other competing markets in the region. These factors limited the market opportunities airlines can tap into and affected the recovery of passenger carrying capacity.

Fifthly, the aviation industry suffered substantial loss of manpower during the pandemic. After the pandemic, various industries have been competing for talent and the ability of re-hiring in the aviation industry faced significant challenges, which affected the pace of flight capacity resumption. The aviation industry estimated that it is still in need of an additional 20,000 employees to meet its operational requirements. The manpower shortage would likely further aggravate after the 3RS is fully operational at HKIA.

Given the current challenges and the importance of aviation to Hong Kong's economic and social development, it is important for Hong Kong to promptly optimize its aviation policies, specifically, in the following areas.

Firstly, Hong Kong should elevate the importance and strategic position of aviation policies. The HKSAR Government should set up a high-level "Aviation Development Task Force" to formulate aviation policies from a macro and integrated perspective with consideration of relevant economic policies. Nowadays, many countries integrate aviation policies with economic development strategies and cultural exchanges considerations. Sometimes these considerations form an integral part of a "packaged agreement" during bilateral or multilateral government negotiations. For example, French President Emmanuel Macron led a delegation to visit Mainland in April 2023. The delegation members included representatives from the aviation industry, and their negotiations covered multiple aspects including trade, tourism and aviation-related matters. In November 2023, the leaders of Mainland China and the USA met in San Francisco, and one of the major negotiation results was to significantly increase flights between the two countries. In addition, ASEAN and the EU, and their member states, signed the world's first bloc-to-bloc air transport agreement in October 2021. The *ASEAN-EU Comprehensive Air Transport Agreement* replaced more than 140 bilateral air service agreements, which greatly enhanced connectivity among member states.

Secondly, Hong Kong should enhance the competitiveness of its international connectivity. A strong network would provide more choices and options for air passengers and cargo users, and in turn would allow HKIA to be in a strong position when facing competition from Mainland and international hubs. Hong Kong will need to continuously increase and enhance its route network to provide air passengers with more choices to meet their increasingly diverse needs for international travel. HKIA also needs to introduce aviation products with price differentiation to attract different types of travellers, and provide optimized prices and quality offers through healthy competition from various operators at HKIA. To this end, Hong Kong should offer specific policy backing to international airlines that are willing to establish their Asia-Pacific hubs in Hong Kong. With availability of new capacity provided by the 3RS, Hong Kong should strategically liberalise various types of air traffic rights, and facilitate the signing of more bilateral or multilateral air service agreements.

urthermore, the HKSAR Government is recommended to relax the requirements of admission and pass schemes for talents and professionals in the aviation industry. For instance, considering the specialized nature of aviation training, internationally renowned aviation training institutes could be included in the aggregate list of eligible schools. Additionally, Hong Kong should actively promote the mutual recognition of qualification standards/ certification of foreign aviation employees and those of Hong Kong to avoid additional costs from differences in certification requirements. Finally, Hong Kong should increase the flexibility of employment visas. For example, Hong Kong can extend the current 12-month training visa for cadet pilots to 14 months for training courses. Hong Kong should allow people without aircraft maintenance experience or qualifications to apply for related jobs in Hong Kong, where they can receive technical training provided by corporates to fill vacancies.

II. Seize the new opportunity in global transshipment trade

HKIA has been the world's busiest international cargo airport since 1996, taking a leading position in international air freight with dominating market share in the Asia-Pacific region. The efficient transshipment handling, strong cargo consolidation capability and strong international flight network are the key competitive advantages to reinforce Hong Kong's leading position in international air cargo.

As international geopolitical landscape and economic dynamics evolved, Hong Kong's air cargo sector is facing new challenges and opportunities. Firstly, the "China+1/China+N" strategy has led to a shift in trade flows, weakening Hong Kong's traditional advantages, and affecting its transshipment hub status. Secondly, as the world enters the e-commerce era, airports in the region all compete for cargo sources from the manufacturing bases in southern China. In particular, Shenzhen, as a hub for cross-border e-commerce enterprises, has seen rapid growth in import and export volume, affecting the air cargo throughput flowing through Hong Kong.

Amidst evolving international trade dynamics and the on-going expansion of international air transport networks at various GBA airports, HKIA has been actively developing new strategic projects to reinforce its leading position. DHL Central Asia Hub was expanded and put into operation, while a new premium e-commerce fulfillment centre led by Cainiao Network was completed in 2023. HKIA also reached an agreement with UPS to develop a new hub facility to further enhance the airport's leading position in global air cargo and e-commerce fulfilment hub. To reinforce Hong Kong's role as the prime gateway connecting GBA and the world, HKIA established a joint venture with Dongguan Port Group to develop the HKIA Dongguan Logistics Park which provides the world's first sea-air intermodal transshipment service enabling GBA cargoes to be shipped by sea to the airside of HKIA for direct air transshipment. The pilot scheme was launched in 2023. HKIA is the first airport in the world to attain the full suite of Center of Excellence for Independent Validators (CEIV) certifications from the International Air Transport Association (IATA) for the handling of special cargo including pharmaceuticals,

perishables, live animals and lithium batteries.

These new facilities will support the medium-term air cargo development of HKIA. However, facing fierce competition in the region, Hong Kong must make further progress in coordinating and integrating its air transport policies with trade policies at a strategic and higher level to avoid blind spots and multiplied impact from un-coordinated standalone policy decisions. Hong Kong should also explore and make full use of the advantages of its free port status to optimize its air transshipment processes.

To further enhance the connectivity of its air transport network, Hong Kong should facilitate the signing of more bilateral air services agreements with Belt and Road Initiative (BRI) countries, review the terms of signed agreements, and expand the scope of aviation services to the extent possible. Hong Kong should actively leverage the BRI Air Silk Road Initiative, strive to join regional economic partnership agreements such as RCEP and TPP, and increase import and export flows from long-haul sources and destinations.

Hong Kong should also review the *Import and Export Ordinance*, and optimize its transshipment-related provisions. In particular, the "*Import and Export (Strategic Commodities) Regulations (Cap. 60G)*" requires a licence for the import and export of controlled strategic commodities, which increases the cost of transshipment goods, such as high-tech communications equipment. The current transshipment process could be further streamlined. For example, if a shipment needs to be breakdown and consolidated or repacked in Hong Kong, apart from applying for the "Certificate of Non-manipulation", it is necessary to make an appointment with the Customs and Excise Department (CED) to supervise the process on site. Any goods that have been “processed” in Hong Kong (e.g. seafood) are considered “imported” and “re-export” goods. Import and export documentation is required to be filed with the Agriculture, Fisheries and Conservation Department (AFCD)/Food and Environmental Hygiene Department (FEHD) and CED. To attract more cargo to route through Hong Kong, the regulation should be amended to relax the restrictions on transshipment processing to allow simple local processing of shipments as transit via Hong Kong . In addition, the customs clearance procedures should be digitalised as soon as possible to improve customs clearance efficiency and

reduce costs.

The HKSAR Government should discuss with relevant Mainland Authorities regarding the granting of preferential tariff rates for goods imported to Mainland via Hong Kong. Reference could be made to the provisions on taxes on imported goods in the *Overall Plan for the Construction of Hainan Free Trade Port*[3] and the *Regulations on Promoting the Development of the Guangdong-Macao In-Depth Cooperation Zone in Hengqin*[4] issued by the State Council, where conditional exemption of import tariffs are allowed. In the meantime, the HKSAR Government should study and formulate a list of goods that should enjoy tariff exemptions when entering Mainland through Hong Kong, and exempt goods not included in the list from import tariffs when entering Mainland.

---

[3] According to Article 2 of the *Overall Plan for the Construction of Hainan Free Trade Port*, "For output products produced by encouraged industrial enterprises without or with imported intermediary products, whose added value exceeds 30% (inclusive) after being processed at the Hainan Free Trade Port, they are exempted from import tariffs when entering the rest of China from the 'second line'..." and "We will issue a catalogue of import taxation for Hainan Free Trade Port, with goods beyond the catalogue that will be exempted from import duties when entering the free trade port. Transshipment cargos transported on combined bills of lading shall not be taxed or inspected..."

[4] According to Article 49 of the *Regulations on Promoting the Development of the Guangdong-Macao In-Depth Cooperation Zone in Hengqin*, "Goods produced by enterprises in the Cooperation Zone that do not contain imported materials and/or parts or that contain imported materials and/or parts but have had their value increased by 30% or more by processing in the Cooperation Zone shall be exempted from import duties in accordance with State regulations when entering the Mainland through the 'second line' channel."

III. Leverage the vast economic hinterland of GBA and the Mainland China

A particular advantage of HKIA over other international competitors is its large economic hinterland, which not only includes GBA and Southern China where Guangdong and Guangxi are located, but also extend to provinces in the east, central and southwestern Mainland where connectivity can be supported through high-speed rail networks. The GBA has a population of nearly 87 million, exceeding the population size of Germany. Its economy is worth about US$1.8 trillion, exceeding that of Australia. Its per capita GDP exceeds US$20,000, surpassing the threshold of being a “developed country”. The huge population base, developed economy and booming business provide a solid foundation for enterprises and residents in the GBA to participate in international trade and travel, and generate demand for a prosperous international aviation market. With the continuous improvement of the overall economy in Mainland China, the more Mainland residents have the economic means to travel abroad, the greater demand for international air travel.

Over the years, HKIA has launched numerous service offers to reinforce its position as a major intermodal transport hub in the GBA. The SkyPier and related high-speed ferry services have been in operation since 2003. A joint venture has been set up in 2006 between HKIA and the Zhuhai Municipal People's Government to jointly manage Zhuhai Airport. In recent years, "Fly-Via-Zhuhai-HK" passenger transfer service has been launched. Passengers can also enjoy SkyLimo services and conduct upstream check-in services at remote city terminals in the GBA. With the completion of the HZMB and West Kowloon Station, HKIA is also extending its upstream check-in services to railway stations in GBA. Under the new initiative of "Southbound Travel for Guangdong Vehicles", HKIA is also planning to launch a large-scale automated car park at the end of 2024 to provide parking for connecting and visiting passengers.

At the moment, HKIA has distinct advantages over Mainland airports in its international route network. To capitalize on these advantages and create value for the GBA, HKIA needs to optimize and improve cross-boundary access and

customs clearance between Mainland China and HKIA while building on existing management arrangements. This would enhance the airport's attractiveness to both passengers and cargo traffic from the economic hinterland.

The HKSAR Government should cooperate with Mainland governments to optimize cross-boundary immigration processes and customs clearance. Efforts include accelerating the implementation of "collaborative inspection and joint clearance" at all land ports between Hong Kong and Mainland; exempting exit-entry permit for Mainland travelers on international flights via land ports to HKIA and providing special shuttle buses; coordinating the working hours of customs, immigration and quarantine departments in Hong Kong and Mainland to increase cross-boundary ports for 24-hour clearance; promoting cooperation with Mainland customs to implement cross-boundary information exchange, mutual authentication and single-inspection customs clearance for goods[5]; optimizing existing policies on cross-boundary trucks, promoting mutual recognition of license plates, driver insurance and practicing qualifications, and considering wider application of electronic locks to supervise cross-boundary trucks to reduce time costs.

Hong Kong should improve the overall connectivity between HKIA and the economic hinterland of GBA and Mainland China. Efforts should include actively promoting "air-rail intermodal transport", improving the connectivity between West Kowloon Station and HKIA, and optimizing the provision of remote city terminals at West Kowloon Station; planning ahead to leverage Hong Kong-Shenzhen Western Rail Link, and exploring the possibility to establish a connecting line at Sunny Bay Station to Airport Express to enable railway connection between Shenzhen and Hong Kong airports; providing policy support on the development of the HKIA Dongguan Logistics Park, including enhancement of its capacity and the expansion of its cargo catchment; providing policy support to optimize the air-sea intermodal transport model for

[5] Inspection by the Hong Kong side or the Mainland China side only. No need for inspections by both sides.

passengers; maximizing the use of HZMB and providing policies to help HKIA to better integrate with Zhuhai Airport in developing air-air fresh cargo service connecting international with inland cities.

IV. Strengthen aircraft leasing financing business in Hong Kong

In 2016, the Hong Kong Government proposed to develop Hong Kong into an aviation financing center. The *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area* advocates leveraging Hong Kong's strengths in financial and logistics services to develop high-value added cargo, aircraft leasing and aviation financing businesses. The aircraft leasing industry requires a high degree of financial flexibility, and tax incentives often play a key role. The Hong Kong Government has recently amended the tax ordinance and implemented a new aircraft leasing tax concession, with an actual tax rate of 0% for aircraft lessors, reflecting its determination to encourage the development of aircraft leasing business. By comparing the differences between Hong Kong and Ireland, Singapore and analyzing the aircraft leasing market, it is found that except for the differences in profit tax rate and asset depreciation tax among the three places, the number of double tax avoidance agreements (DTAAs) signed by Hong Kong with other jurisdictions is relatively small: 76 in Northern Ireland, 97 in Singapore, 46 in Hong Kong and 112 in Mainland China. There are only about 100 registered aircraft in Hong Kong, accounting for a tiny share of the global aircraft leasing market.

Starting an aircraft leasing business in Hong Kong is the best way to enter the Mainland market. China is the world's largest airline leasing market, and Hong Kong provides lessors with an option to balance political and economic risks. Given that geopolitics and conflicts increase operational risks for lessors, registering aircraft in Hong Kong not only takes into account international laws and tax systems, but also meets the needs of lessors to enter the Mainland China market. When aircraft lessors enter the Mainland China market, the Mainland China collects withholding income tax on the rental of aircraft leasing. The withholding income tax rate between Hong Kong and the Mainland China is 5%, while that between other major aircraft leasing centers and the Mainland China is 6%. On the other hand, unlike the saturated markets of western countries, the BRI has boosted the aviation demand in more developing countries, while airlines in Mainland China have played an increasingly important role in relevant development. In the context of China's advocacy of

building a financial powerhouse, Hong Kong has the conditions to develop aircraft leasing business facing BRI countries.

Hong Kong should further formulate relevant policies to develop aircraft leasing business, continuously optimize tax incentives for aircraft leasing, speed up the signing of DTAAs with more countries or regions, and join the *Cape Town Convention* as soon as possible to protect the interests of leasing companies and property owners. In terms of finance, Hong Kong should explore aircraft asset securitization, enable the listing of aircraft asset securitization products in the form of investment trust, and popularize related products with reference to real estate investment trusts to attract more institutional and individual investors. Hong Kong should encourage Hong Kong Investment Corporation Limited (HKIC) to symbolically invest in companies and projects with potential in the aircraft leasing industry, so as to demonstrate the Government's confidence in the prospect of the aircraft leasing sector and its willingness to provide substantial support, and introduce more capital into Hong Kong to develop aircraft leasing and financing business.

It should seize the opportunity of made-in-China large aircraft C919 entering the global civil aviation market, strengthen cooperation with Mainland China airlines and Commercial Aircraft Corporation of China (COMAC), and make good use of Hong Kong's platform to promote made-in-China aircraft to the world. On the one hand, in line with the BRI development and aircraft demand, Hong Kong should leverage its advantages of professional services that meet international standards and develop the international leasing business of China's home-grown aircraft. On the other hand, with made-in-China large aircraft entering the international market, Hong Kong can position itself as a logistics center for made-in-China large aircraft, integrate parts logistics, and help China-made large aircraft operate internationally, especially in the Asia-Pacific region and the BRI region.

V. Develop cutting-edge aviation technologies and establish aviation technology R&D bases

The core driving force of the aviation industry is technological innovation. Continuous progress and groundbreaking innovation in aviation technology have the potential to transform the operation model of the global aviation industry overnight. The conventional model may face challenges from emerging technologies such as robotics, sustainable aviation fuels (including biofuels), and supersonic technology. Unmanned aerial vehicles (UAVs), electric vertical take-off and landing vehicles (eVTOLs), applications of artificial intelligence (AI) in aircraft maintenance are likely to be deployed at scale in the foreseeable future. Scientific and technological innovation will revolutionize the aviation value chain. Facing manpower shortages and cost pressure, the aviation industry must broaden its mindset to seize the opportunities brought by new technologies and deal with the consequent changes.

In fact, Hong Kong already has a solid foundation in the field of aviation technology. For example, since 2012, the Aviation Services Research Centre (ASRC), jointly established by the Hong Kong Polytechnic University (PolyU) and Boeing Company, has conducted cooperative research in the region with its founding members HAECO and HAESL. It has been committed to the R&D of service technology for aviation equipment management and maintenance. PolyU and Commercial Aircraft Corporation of China (COMAC) also signed a memorandum of cooperation to deepen civil aviation research in AI, big data and new materials. As the HKSAR Government takes scientific and technological innovation as a new driving force for future economic development, promoting the development of aviation technology will be of great significance. This will help Hong Kong embrace new development opportunities.

Public financial support plays a key role in promoting aviation technological research, creating high-quality employment opportunities and attracting professionals. However, there is no dedicated funding program for aviation technology in Hong Kong. The Innovation and Technology

Commission (ITC) has a number of sub-funding programs under its Innovation and Technology Fund (ITF), but neither the "Technology Sector" nor the "Industry Category" includes aviation as an option. The closest option is "Transport". The Transport and Logistics Bureau (TLB) has recently launched the "Aviation Promotion Project Funding Scheme", which does not focus on aviation technology. Therefore, Hong Kong's support for aviation research is not comprehensive at the level of the funding system.

To address this issue, Hong Kong should first provide long-term and stable funding for aviation research projects. It should include the ASRC as a "Designated R&D Organization" of the Innovation and Technology Support Programme (Platform & Seed) to obtain a higher maximum amount of seed grants[6]. Additionally, the aviation industry should be explicitly included in the "Technology Sector" and "Industry Category" of funding applications. Meanwhile, Hong Kong should shorten the approval period of funding applications, which will help research institutions and industry partners shorten the project cycle. By referring to international cases, Hong Kong can establish a public-private cooperation mechanism for long-term funding of aviation technology R&D, improve the efficiency of government-industry-university-research institute cooperation, predict the impact of emerging aviation technology, strengthen policy foresight, and leave room for the development of emerging technology.

Second, as China accelerates the development of low-altitude economy, it is suggested that Hong Kong actively research the establishment of pilot projects for UAVs and eVTOLs, and incorporate Hong Kong into the national low-altitude economic network. To this end, Hong Kong can open Shenzhen Bay to connect with designated ports as a cross-border pilot for UAVs and eVTOLs, which can boom cross-border business between the two places and open up new aviation fields. Furthermore, Hong Kong can explore the combination of aviation and tourism, incorporating UAVs and eVTOLs into

[6] HK$2.8 million for projects undertaken by the R&D center and HK$1.4 million for other applicants.

local tourism development plans, and setting up more landing sites in the urban area so that tourists can choose their flight route flexibly. For example, it can popularize flights in scenic areas of Victoria Harbour.

Third, Hong Kong should leverage aviation research findings of local universities and industrial resources derived from aviation technology in GBA. It should seek means to build aviation R&D bases in GBA and Mainland China. These bases will interact with the San Tin Technopole to develop more aviation technologies. These bases have the potential to expand Hong Kong's contribution to COMAC's independent development of large aircrafts and attract more world-class aviation companies and research institutes. This will strengthen the agglomeration effect and enhance the influence of GBA in the global aviation technology innovation. These bases can also provide long-term talent training for the industry and support the comprehensive and sustainable development of Hong Kong's aviation industry.

Hong Kong's aviation industry not only fully recognizes the importance of technology but also seeks to adopt all technologies, models and policy innovations that can improve passenger experience, increase operational efficiency, and strengthen the integrity of aviation systems, including air transport customs clearance of new businesses such as eVTOLs. This partnership drives significant progress in developing cutting-edge and emerging aviation-related technology programs. The cooperation between local universities, such as PolyU, and the aviation industry in Hong Kong can significantly catalyze sustainable development in all sectors of the aviation industry, expediting growth and innovation in this industry.

Acknowledgement

Survey Team Coordinator:

Bunny Chan	Hong Kong Coalition, Vice Secretary-General
Fred Lam	Airport Authority, CEO

Consultants - Airport Authority Hong Kong:

Vivian Cheung	Airport Authority, Chief Operating Officer
Cissy Chan	Airport Authority, Executive Director(Commercial)
Julia Yan	Airport Authority, General Manager (Corporate Planning)
Inid Lam	Airport Authority, Public Affairs Manger

Consultants - The Hong Kong Polytechnic University:

Prof. Christopher Chao	The Hong Kong Polytechnic University, Vice President (Research and Innovation) and Policy Research Center for Innovation and Technology (PReCIT), Director
Dr. Tze-Leung Yip	The Hong Kong Polytechnic University, Associate Professor, Department of Logistics and Maritime Studies
Patty Yeung	Policy Research Center for Innovation and Technology (PReCIT), Executive Officer

Consultants (In alphabetical order of surnames):

Summit Chan	HAECO, Group Director Corporate Development
Dr. Joe Fang	One Country Two Systems Research Centre, Research Director

Sunny Ho	The Hong Kong Shippers' Council, Executive Director and Hong Kong Logistics Management Staff Association, Chairman
Kelvin Leung	DHL Global Forwarding (Hong Kong) Ltd., Chief Executive Officer Asia Pacific
Carine Truong	Careva Aero Capital, CEO

Secretariat:

Jes Lam	One Country Two Systems Research Centre, Senior Research Officer
Liam Liang	One Country Two Systems Research Centre, Assistant Research Officer

Academia:

The Hong Kong Polytechnic University (In alphabetical order of surnames)

Prof. Achim I.Czerny	The Hong Kong Polytechnic University, Associate Professor, Department of Logistics and Maritime Studies
Prof. Xiaowen Fu	The Hong Kong Polytechnic University, Professor of Engineering Management in the Department of Industrial and Systems Engineering
Dr. C.M. Jiang	The Hong Kong Polytechnic University, Associate Professor, Department of Logistics and Maritime Studies
Capt. Michael Lau	The Hong Kong Polytechnic University, Professor of Practice, Department of Aeronautical and Aviation Engineering
Prof. H.C. Man	The Hong Kong Polytechnic University, Dean, Faculty of Engineering

Dr. Sarah Wan	The Hong Kong Polytechnic University, Assistant Professor. Department of Logistics and Maritime. Studies.
Dr. Kun Wang	The Hong Kong Polytechnic University, Assistant Professor at Department of Industrial (ISE) and Systems Engineering

Aviation Services Research Centre (ASRC)

Robert Voyle	Aviation Services Research Centre, CEO

Enterprise:

John Swire & Sons (H.K.) Ltd.

James Tong	John Swire & Sons (H.K.) Ltd., Director Public Affairs

Cathay Pacific

Lavinia Lau	Cathay Pacific, Chief Customer and Commercial Officer
Andy Wong	Cathay Pacific, General Manager Corporate Affairs
Adrien Ng	Cathay Pacific, Head of Government Affairs

Others (In alphabetical order of surnames):

William Chan	Glyder Group, Founder, Director
Simon Li	HKIA Services Holidaings Ltd., CEO
Kai-Xiang Mok	TAYON Aircraft Leasing Investment, Founder

香港再出發

HONG KONG COALITION

OFFICIAL
WEIXIN

OFFICIAL
WEBSITE