

An Exploration of Diversified Strategies for the Construction of Talent Highland in the Guangdong-Hong Kong-Macao Greater Bay Area

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Abstract: Since the 18th Party Congress, the Party Central Committee, with Comrade Xi Jinping at its core, has put forward a series of major propositions on talent work and made a strategic layout for China to accelerate the construction of the world-important talent center and innovation highland. As one of the regions with the highest degree of openness and economic vitality in China, the Guangdong-Hong Kong-Macao Greater Bay has been given the important task of building a high-level talent highland, which is a significant opportunity, or mission and challenge. The Guangdong-Hong Kong-Macao Greater Bay has a certain foundation and effectiveness in gathering talents to serve the construction of the Bay Area. Though there are also shortcomings and weaknesses that should be mitigated, such as the lack of high-level talents and the incomplete synergy. Therefore, it is a necessity to explore diversified strategies and innovative paths for the construction of talent highlands in the Bay Area. It should start from the industrialization of technological achievements in universities, innovative optimization of the talent development environment and contemporary design of talent development policies. Learning from the advanced experience in building talent highlands in international bay areas, the quality and efficiency of building talent highlands in the Greater Bay Area will be enhanced through strategies such as strengthening major innovation infrastructure, improving the soft and hard urban environment, and opening up channels for the introduction of talents.

Keywords: International Bay Area; Guangdong, the Guangdong-Hong Kong-Macao Greater Bay Area; Talent Highland Construction; Experience Learning

1. Introduction

Since the 18th Party Congress, the Party Central Committee, with Comrade Xi Jinping at its core, has put forward a series of important propositions like “accelerating the building of a world important talent center and innovation highland”. *The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area* (hereinafter referred to as “*the Outline*”) promulgated in 2019 proposes to build a series of goals like “a highland of education and talents in the Greater Bay Area of Guangdong, Hong Kong, and Macao”. The Outline also sets out several objectives, including the creation of a “Highland of Education and Talents in the Greater Bay Area”. The Tokyo Bay Area, the US San Francisco Bay Area and the New York Bay Area, as global talent heights, have attracted a lot of high-level talents with their developed high-tech industries, good talent development environment and perfect talent policies. Therefore, the Guangdong, Hong Kong and Macao Bay Area should learn from the advanced experience of the international Bay Area in building innovative talent highlands and make up for its own shortcomings.

2. Industrialization of technological achievements in Bay Area universities

Today, competitions among countries and regions are not limited to center on the level of economic development but has gradually changed to be on global competition for talent. The formal establishment of the Guangdong-Hong Kong-Macao Greater Bay Area has also led to a significant increase in the economic strength and regional competitiveness of Guangdong, Hong Kong and Macao, and the initial conditions for the establishment of an international first-class bay area.^[1] However, compared to the three

international bay areas, the overall technological level of the Greater Bay Area is still lagging and there is a large gap.

2.1 Current Technology Development in the Greater Bay Area

Generally, the gap of the development of science and technology talents between the Greater Bay Area and the three major international bay areas is mainly focused on the insufficient number of high-level talents and the low performance of research output.

2.1.1 Insufficient number of high-level talents

According to the data of United Nations (UN), international talent in developed countries usually accounts for about 10% of their resident population. However, the international talent in the Greater Bay Area only occupies about 3.3% of the resident population in 2014, far below the mark of 10%. Besides, only approximately 24% of the entire workforce in the Greater Bay Area has a bachelor's degree or above in education, which is much lower than that in the San Francisco Bay Area (46%), the New York Bay Area (42%) and the Tokyo Bay Area (36.7%). The specific data is shown in Figure 1. Meanwhile, entrepreneurial talent in the Greater Bay Area accounts for 8.23% of the high-level talent ratio, which is also much lower than that of the San Francisco Bay Area (13.36%)^[2].

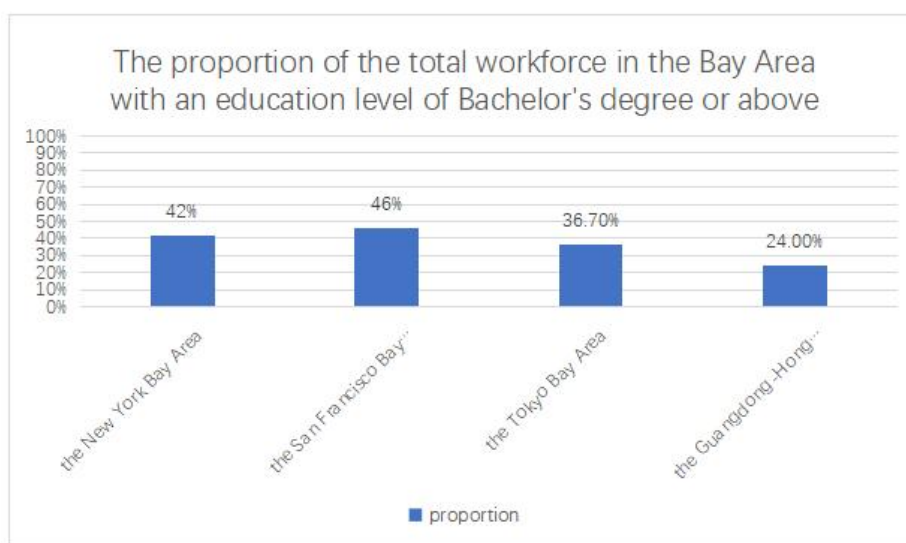


Figure 1 Share of the labor force with education level of bachelor's degree or above in the Bay Area in the total labor force

Source: Guangdong, Blue Book of Hong Kong and Macao Greater Bay Area, Report on Reform and Innovation of Guangdong-Hong Kong-Macao Greater Bay Area in China (2020)

2.1.2 Low performance in science and technology output

The achievements in science and technology innovation are mainly composed of four parts: the theses, the published monographs, the contracts of technology transfer and the number of patents. Firstly, in terms of the theses and the published monographs, 13,619 monographs and 108,3321 academic papers in science and technology were produced by universities in China in 2020, with Guangdong Province accounting for about 4.9% and 4.7% respectively.^[3] Overall, there is still large space for the improvement of quantity and quality when it comes to the number of papers and published monographs in Guangdong Province of the Greater Bay Area.

Moreover, there is widespread agreement that the collaboration between businesses, universities, and research organizations is one of the best methods to support local innovation growth and enhance the quality of research output. The transformation of research results is essential for the advancement of science and technology to boost regional economic benefits, and ongoing the cooperation among businesses, universities, and research institutions is a crucial first step in achieving this goal. In 2020, the universities in China had a total of 330,375 patent applications, 206,036 patent grants and 9,229 patents for sale, which accounts for about 7.9%, 6.5% and 4.1% of the total respectively in Guangdong Province.^[4] In these three indicators, the number of granted patents, and the number of sold patents can be the strongest drivers of business economic development. The data suggests that the Greater Bay Area is in the early stages of development in these two aspects.

In conclusion, it can be noted that the number of scientific and technological innovation achievements in the Greater Bay Area is relatively insufficient, and the efficiency of the transformation of scientific research achievements still needs to be improved.

2.2 Summary of Experiences from the International Bay Areas

In the Outline, it is clearly stated that the positioning of the Greater Bay Area is to create a vibrant world-class city cluster, an international center for science and technology innovation, and a quality living area with “three desirable features”, with education and talent as important objectives. According to the analysis of the data above, there are two problems that are presented in the aspect of technological innovation, which are the insufficient number of high-level talents and the low efficiency in the transformation of scientific research results. Correspondingly, the experiences from the international bay areas are shown as follows.

2.2.1 Make the most of higher education clusters

Located in the northern part of California, the San Francisco Bay Area is known as the “Tech Bay Area” and its success is based on its emphasis on technology development and the role of higher education clusters. By 2022, over 40% of the population of the San Francisco Bay Area have enrolled in higher education. Government and social enterprises also provide ongoing research funding to prestigious universities like Stanford University, which has produced a large pool of entrepreneurial and innovative talent in its Bay Area. With adequate funding support, extensive links have also been established between universities in the San Francisco Bay Area to make a full use of the research funding and resources, creating complementary strengths in the university consortium.

Unlike the San Francisco Bay Area, the New York Bay Area has a combination of high-level conventional education and “mentorship” training. The Bay Area government has partnered with major corporations to create a mentor-apprentice model of one-to-one teaching between students and corporate staff and has joint forces to create the preparatory classes of technical college and new vocational schools, generating a sound mechanism for the development of skilled personnel. ^[5]

2.2.2 Improve the mechanism of industry-academia-research

The San Francisco Bay Area focuses on technological innovation to drive the transformation and upgrading of industry. Through the integration and utilization of various elements, a process industry chain has been formed by the San Francisco Bay Area, including suppliers, venture capitalists, and technology supply. It further contributes to an efficient innovation mechanism that integrates industry, academia, and research. The Bay Area has one of the best venture capital environments and the most sophisticated venture capital mechanisms in the world. Over a third of all venture capital firms converge here, creating a siphoning effect on capital and ultimately making it one of the most important regional investment centers in the US. As a result, there has been a significant influx of capital from around the world to the San Francisco Bay Area, which to some extent has solved the problems of development of the technology companies, such as the difficulty of investment and financing for small and medium-sized enterprises. The Tokyo Bay Area has set up a horizontal cooperation mechanism of industry-academia-research led by enterprises to encourage them to participate in training talents in the Bay Area. In addition, nearly half of the funding for the development of scientific and technological talent in the Bay Area is provided by companies.

2.3 Suggested measures to promote the industrialization of technology in the Bay Area

To promote the upgrading of the science and technology industry in the Guangdong, Hong Kong, and Macao regions and to lay the foundation for the construction of a talent highland, improvements are proposed in the following two aspects.

2.3.1 Strengthen the infrastructure of scientific industry

The development of scientific research infrastructure is the primary factor in raising the level of the regional industry of science and technology. The advantages of the concentration of high-tech industries and the high degree of marketisation and openness in the central cities such as Guangzhou, Shenzhen, and Hong Kong should be made full use of. This will promote research cooperation among the cities and give full play to the advantages of the “9+2” cities in the Greater Bay Area. At the same time, the government should provide major financial support and advocate the participation of enterprises to jointly build large science cities and industrial parks, helping various industrial science and technology service institutions gather here. In this way, a solid foundation for the

transformation of the scientific and technological achievements in universities can be built. Finally, there is a necessity for the Greater Bay Area to identify its strengths, optimize its industrial layout, develop modern service industries such as financial services and technology services vigorously, and strengthen its research infrastructure. Thus, a good entrepreneurial environment and policies can be provided for talents and the Bay Area will be more attractive to them.

2.3.2 Focus on the development and exploration of scientific talent

Education plays an important role in the development of high-level human resources. The innovative development of higher education and the cultivation and exploitation of research talents are necessary for the construction of the talent highlands. In this regard, the Greater Bay Area should focus on the integration of industry and education. Firstly, “double first-class” universities and disciplines should be built in the Bay Area to create a source of innovation and provide a continuous supply of human capital for the construction of a talent highland via complementing each other's strengths.

Additionally, universities need to clarify their disciplinary characteristics and scientific research advantages, integrate them with the development and industrial transformation and upgrading needs of the city where the university is located, and take the market and regional needs as the direction of development. ^[6]The full play should be given by universities to their disciplinary characteristics and research advantages, and the practicality and feasibility of their research results should be made a top priority to enhance the economic effect of their scientific and technological achievements. Also, the cooperation between universities and enterprises should be strengthened to build a collaborative innovation platform of industry-university-research among Guangdong, Hong Kong, and Macau.

In this process, the government should also consider whether to establish specialized institutions and promotion platforms for the transformation of scientific and technological achievements according to the actual situations, to promote the further improvement of the transformation rate of scientific and technological achievements. At the same time, laws and regulations on the transformation of scientific and technological achievements as well as relevant policies can be improved by the government to guide, regulate and accelerate the transformation process in universities and research institutions.

3. Innovative optimization of the talent development environment in the Bay Area

Talent, as a driving force in the development of an international innovation center, ensures that the innovation capability of the region is constantly improved. As a result, one of the most significant ways to establish a talent highland is to optimize the environment for talent growth and to create a suitable community in which they may live and work.

3.1 Status quo of the talent development environment

According to the Outline, a good living and working environment for talent in the region is needed to be provided by the Greater Bay Area to solve the survival problems of foreign talent. Compared with the international bay areas, there is still a gap of the talent development environment between the Greater Bay Area and the international bay areas, which is mainly reflected in two aspects: the soft environment for talent development needs to be strengthened and the synergistic development effect of the bay area has not yet been formed.

3.1.1 Soft environment for talent development needs to be strengthened

A range of policies has been introduced by the Guangdong government, such as tax incentives, pension subsidies, and housing subsidies, aiming at attracting international talent and keeping it in the Greater Bay Area. It is conducive to attract many talents to the region in a short period, while the soft environment for talents to live in the Bay Area should not be overlooked if high-level talents are expected to stay in the region for a long time.

Firstly, the differences of systems and mechanisms among the areas of Guangdong, Hong Kong, and Macau have led to problems. For instance, the lack of mutual recognition of health insurance and social security. Although the policies have been improved according to the needs of society, there is still much room for progress. Secondly, the living environment for talent needs to be improved. According to the Global City Cost of Living Rankings released by Mercer Consulting in 2020, only one city of the international bay areas rank the top 20 cities in the world in terms of cost of living, while the whole region of the Greater Bay Area is included.^[7] The rankings show that Hong Kong is the city with the highest cost of living in the world. Specific statistics can be found in Table 1. As a result, for one thing, the quality of life of talents in the Guangdong, Hong Kong, and Macau Bay Area is reduced

significantly due to the low income and the high cost of living compared to the international bay areas. For another thing, China ranks 70th in terms of “physician density” and 85th in terms of “health facilities”. As a result, the attraction of talent is directly affected by the disproportion between living environment and cost of living. [8]

Table 1 Global city cost of living rankings (top 20)

Rank 2020	City	Country/Region
1	Hongkong	Hongkong (SAR)
2	Ashgabat	Turkmenistan
3	Tokyo	Japan
4	Zurich	Switzerland
5	Singapore	Singapore
6	New York city	United States
7	Shanghai	China
8	Bern	Switzerland
9	Geneva	Switzerland
10	Beijing	China
11	Seoul	South Korea
12	Tel Aviv	Israel
13	Shenzhen	China
14	Victoria	Seychelles
15	N’Djamena	Chad
16	San Francisco	United States
17	Los Angeles	United States
18	Lagos	Nigeria
19	London	United Kingdom

Source : Mercer. Mercer 2020 Cost of Living Ranking. Available Internet: [chrome-extension:// ibllepbpahcoppkjjllbabhnigcbffpi/https://ftnnews.com/images/stories/documents/2020/mercer-cost-of-living-rankings.pdf](chrome-extension://ibllepbpahcoppkjjllbabhnigcbffpi/https://ftnnews.com/images/stories/documents/2020/mercer-cost-of-living-rankings.pdf).

3.1.2 The Synergistic development in the Great Bay Area has not yet constructed

To build a highland of education and talent in the Greater Bay Area, synergies must be formed within the Bay Area through the integration of essential elements of development such as knowledge, talent, and capital. However, due to the feature of “one country, two systems and three tax zones”, there are significant differences among Hong Kong, Macao, and Guangdong Province in terms of systems, administrative authorities, and administrative hierarchy, making synergy within the Bay Area a challenge. Firstly, there are considerable disparities in urban planning and administrative systems among these three areas. Hong Kong and Macao face comparatively minimal interference of the macroeconomic of China, and their development policies are centered on supplying the fundamental elements for economic development, whereas Guangdong Province is governed by macroeconomic planning. Secondly, the strength of Non-governmental Organizations (NGOs) in Guangdong Province is also relatively weak, resulting in a certain degree of limitation on the progress and flexibility of the cooperative work. The differences in development planning, administrative procedures, and implementation of powers in Guangdong, Hong Kong and Macau make it very difficult to carry out cooperation among the three places, which directly affects the exchange and cooperation of the talents and their social life in different places.

3.2 The experiences from the International Bay Area

The New York Bay Area, San Francisco Bay Area and Tokyo Bay Area are currently the top international bay areas. Although the core location, leading industries, and development paths of the three international Bay Areas are different, they share many commonalities, such as comprehensive living facilities, a highly synergistic regional division of labor and free flow of production factors. These commonalities are precisely what the Guangdong, Hong Kong and Macau Bay Area should learn from.

3.2.1 Govern and improve the living environment of the Bay Area

Urban governance is given great importance by the international Bay Area. It is a focus to build a multi-participant Bay Area governance system, with governance mechanism of each region established distinctively. The San Francisco Bay Area has created a “government-led + market-led” multi-governance mechanism. Public authorities such as the San Francisco Bay Area Association of Governments and the Bay Area Air Quality Control Authority have been set up to help address issues that close to the living of the talents, such as poor air quality, traffic congestion and housing tensions.

The Boston, New York Bay Area government has renovated suburban parks, schools, supermarkets, and hospitals to meet people's basic needs and attract high-level talents to live and work there. In addition, an open, inclusive and forgiving international environment has been built by the Bay Area government, where the talents are encouraged to come and develop their careers.

3.2.2 Establish a high-speed and effective regional coordination mechanism

Synergistic development is an inexorable law for the development of the Bay Area and an objective to enhance the Bay Area economy and build a highland of talent. Talents are hardly attracted to a Bay Area without sufficient competitive strength. Therefore, the establishment of a collaborative working mechanism among governments is considered an important link in the construction of a talent highland. For example, the Japanese government has promoted the planning and development of the Tokyo metropolitan area through the enactment of laws and regulations such as the Metropolitan Area Improvement Act. Besides, public organizations have been set up by the San Francisco Bay Area specifically for coordination. Through these methods, undesirable situations such as disorderly work and unhealthy competition between cities are effectively avoided, and a good working environment is provided for talented people who come to the Bay Area.

3.3 Suggestions for optimizing the talent development environment

A series of relevant policies have been introduced by the Chinese government over the past 15 years to support the development of the Greater Bay Area. However, in terms of the environment for talent development in the Bay Area, there are still shortcomings compared to the other three internationally renowned Bay Areas. Based on the characteristics and needs of the construction of China, we now propose recommendations from the following two perspectives.

3.3.1 Implementation of the Mechanism of Regional Synergy Development in the Greater Bay Area

The Greater Bay Area is recognized as one of the most economically dynamic city clusters in the world. To further enhance its overall competitiveness, the strengths of the 11 cities in the region must be fully exploited.

First, the Bay Area governments should break the administrative deadlock, and the synergy, scale and agglomeration effects of the Bay Area city clusters should be fully utilized. Based on the 9+2 world-class city cluster, a more efficient and convenient unified administrative mechanism should be attempted to strengthen the leading and radiating functions of city centers. Second, the entrepreneurial circle with Shenzhen as its core and the global financial center with Hong Kong as its core should be taken seriously by the Greater Bay Area. Moreover, the advantages of tourism in the Pearl River Delta region should not be overlooked. Third, strengthening Nansha as the sub-center of Guangzhou, as well as Qianhai and Hengqin as the hub center of Shenzhen and Zhuhai should be further stimulated to provide a good opportunity for the city cluster of Greater Pearl River Delta to move towards a prestige position of the world.^[9] Meanwhile, the building of cross-border cooperation platforms among Guangdong, Hong Kong, and Macau must be given attention, and the leading role of the four central cities of Hong Kong, Guangzhou, Shenzhen, and Macau should be brought into play to help the Bay Area build a global center of innovation in the technology industry. In addition, the positioning of the major cities in the Bay Area should be clarified by the government according to the premise above. For example, Guangzhou should be developed into a national innovation center city. Shenzhen should be improved to be a national innovation city, a national demonstration zone for independent innovation, and an international innovation center with world influence. Relevant policies should be adopted to support Macao's cooperation with Zhuhai to build an international innovation city and an important pioneering zone.^[10]

3.3.2 Improve the soft and hard urban environment

The development of a soft and hard environment for the talents has been given high priority in the three leading international Bay Areas. Therefore, if the Greater Bay Area attempts to benchmark itself against international bay areas, urban infrastructure such as transportation, housing, and healthcare should be further improved. Additionally, social security system that is in line with international standards should be created, and more attention should be paid to the provision of medical facilities and the construction of medical teams. In this way, the talent ecological environment can be enhanced.^[11]

In addition, the establishment of public oversight organizations in areas such as education, healthcare, and transport must be targeted at. Reforms in the housing, education, and healthcare sectors should be further promoted to create a comprehensive service system that is exclusive to the talents in Guangdong, Hong Kong, and Macau. In the next step, the functional quality of each major city can be further enhanced by the relevant requirements set out in the Outline, considering the advantages of the Bay Area and the successful experience from the international bay areas. In this process, Guangdong's entrepreneurial environment should be continuously improved and upgraded in line with the relevant standards of Hong Kong and Macau to facilitate the exchange of talents among these three areas. Meanwhile, the publicity of typical experiences and personalities should be strengthened to motivate all kinds of talents to contribute to the cooperation and development of Guangdong, Hong Kong, and Macau.

4. A contemporary design for talent development policy in the Bay Area

Talent competition is increasingly becoming one of the critical factors in the competition for comprehensive national power. Talent is the core force of today's social development, and perfect supporting policies for talent development are the key to their being developed. In both developed and developing countries, talent policies are being introduced by national characteristics. Therefore, the construction of a talent highland in the Greater Bay Area cannot be achieved without a realistic talent development policy in that line with the laws of the times.

4.1 Status Quo of talent development policies in the Bay Area

Considering the strategic objectives set out in the Outline, the Greater Bay Area should base on the needs of the Bay Area and regional strengths, with talent needs as a prerequisite to enable them to be cultivated and developed. A series of talent development policies have been introduced successively by the Greater Bay Area currently. However, there is still many shortcomings that against the world-class bay areas, mainly focusing on two perspectives: the difficulties in talent introduction and talent flow.

4.1.1 Incomplete talent introduction mechanism

With the development of the market economy, the role of talent has become increasingly prominent. It is only through vigorous development of human resources that the Bay Area Government will be able to bring in talented people, especially those from overseas, which would promote the healthy and sustainable development of the Bay Area. Therefore, the introduction of high-level talent is an essential step in the use of human resources. According to the data, China ranks 78th in terms of attracting talent, with the lack of overseas talent being the biggest flaw. While the "immigrant population" is ranked 134th.^[12] The Bay Area is severely hampered in the introduction of talent by the incomplete talent introduction mechanism at present.

In addition, by summarizing the existing policies on the introduction of talent in the Bay Area, household registration, housing purchase (rental) policies, and employment and entrepreneurship subsidies are regarded as the focuses of the policies on the introduction of talents, showing the homogenization of policies. The different rates of economic development of cities in the Bay Area have led to large differences in the number of subsidies, salaries, and incentives offered by each city, which to a certain extent has led to competitions within the Bay Area. Thus, in the long run, there was homogenization of talent flow, which is not conducive to the overall development of the Bay Area. From another perspective, the flexible mechanism for attracting talent is not sufficiently dynamic. "Rigid talent attraction" is still the main direction of the talent attraction policy in the Greater Bay Area, which provides incentives and livelihood security for talented people who work in the Bay Area on a long-term basis.

4.1.2 Barriers to Cross-Border Talent Mobility

Although the Greater Bay Area advocates the use of talent to its fullest extent possible, it is the concept of "using talent according

to its capacity” hat has resulted in being confined in the use and potential development of the talents to a certain extent.

Moreover, talent mobility is rarely covered by the talent policy of the Greater Bay Area. In companies with more limited autonomy in hiring, the free flow of talent is restricted to reduce brain drain. In the long run, the development and mobility of talent are inevitably affected by the concept of “no-surrender” in talent use. ^[13] In addition, the present introduction of high-level overseas talents in Guangdong is mainly carried out through government forces and channels, with less flexible talent attraction and market cooperation. The channels for recruiting foreign talents through private organizations are also not fully utilized. This is not conducive to the cross-border flow of talent and the introduction of high-level overseas talent. In general, there are three major challenges for overseas talents to come to the Bay Area for employment: few channels, high costs and insufficient platforms.

4.2 Experience from the International Bay Area

The more talent resources a country or region has, the more it holds the code for innovation and development. Looking back at the history of the international bay areas and the economic highlands in developed regions, the open and inclusive talent introduction mechanism and good supporting facilities for talent development have contributed to the remarkable concentration of talent in these areas.

4.2.1 An inclusive and open regional culture

The San Francisco Bay Area and the New York Bay Area are committed to creating an open and inclusive cultural environment so that the best talent of all kinds can be brought together to help the economic development of the bay areas. The New York Bay Area, for example, maintains an open and friendly attitude towards the international communities, and foreign talents are treated with preferential policies on housing, education, and living. According to statistics, the number of businesses founded by immigrants in the New York Bay Area in 2017 accounted for 52% of all businesses in New York City, with those who born in foreign countries working in high-end industries such as healthcare (50%), technology (47%) and financial analysis (44%). ^[14]

4.2.2 A sound policy for the introduction and mobility of talent

Leveraging the resources of immigration is an effective way for open economies to compete for innovative talent, and efficient immigration policies have long been implemented in the three leading countries with world-class bay areas. In the US, for example, immigration policies, particularly skilled immigration policies, are constantly being improved and refined, and the talent management system is continually adjusted in a targeted manner to ensure that the maximum amount of talent is recruited. At the same time, the prohibition of restrictions on the reasonable movement of employees is explicitly stated in laws to ensure the free movement of talent. With a flexible visa and work permit system, the balance of talent matching and supply within the New York Bay Area and San Francisco Bay Area is ensured.

4.3 Suggestions for Promoting the Talent Development in the Greater Bay Area

Against the backdrop of an era when talent is desperately needed for China's development, increasing efforts to bring in talent and using policies to help them develop is considered one of the urgent calls. The Greater Bay Area should follow the laws of the times and create a platform for talent pooling.

4.3.1 Opening up channels for the introduction of talents

The international connectivity between Hong Kong and Macao should be fully utilized by the government of the Greater Bay Area to enhance the exchanges and cooperation of the international trades. Non-governmental organizations and community groups concerning foreign affairs, with their extensive overseas contacts, can be fully utilized to drive the talent to flow and gather in the Greater Bay Area through the international trades. In addition, the government of the Bay Area can introduce relevant policies to incentivize internationally renowned universities, and the colleges and universities in Hong Kong and Macau to cooperate and set up research institutes in Guangdong, thereby attracting top international scholars to work in the Greater Bay Area. At the same time, a talent remuneration mechanism that is in line with international standards should be attempted and a more open global talent attraction system must be implemented.

Besides, the mobility of international talent has been redefined by the outbreak of the new crown epidemic, and the concept of

global talent attraction should be established by the Bay Area. One of the manifestations of our remarkable achievements in fighting the epidemic being recognized globally is the significant return of overseas talent. Therefore, the Bay Area could seek to issue longer validity and multiple-entry visit visas for foreign experts and scholars invited by universities, research institutes, and key enterprises in Guangdong, etc. Business visas for multiple trips to Hong Kong and Macau could be tried for teaching and scientific personnel. ^[15] At the same time, domestic and international talent exchange should unceasingly be supported by the Chinese government. International academic conferences and discussions can be conducted using the internet, while diversified talent exchanges can be conducted offline in the form of study abroad, visiting scholars, and joint training.

4.3.2 Promote Synergy in the Greater Bay Area

A coordinating institution of human resource could be set up in the Greater Bay Area by the government to enable closer cooperation and communication between the governments of Guangdong, Hong Kong, and Macau. In addition, the issue of institutional and policy differences in human resources in the Bay Area should be collaboratively addressed by the three governments, striving for the ease and effectiveness of the policies. The advanced experiences of Hong Kong, Macau, and the three international Bay Areas are worthy of being considered. For example, the effective supply of human resources and public services should be strengthened. At the same time, a digital public service platform for human resources can be jointly built by Guangdong, Hong Kong, and Macao, to promote digitalization and facilitation of the government services.

Additionally, deepening the institutional innovation of the Guangdong-Hong Kong-Macao Talent Cooperation Demonstration Zone is essential. The list of powers and responsibilities of government talent management services in the Bay Area must be divided rationally. It allows the talents to be given full play and promotes the construction of a model talent cooperation zone. The normal flow of talent should not be constrained and restricted but seeks to fully implement the autonomy of enterprises, institutions, universities, and research institutes. At the same time, the Bay Area government should play a leading role in attracting talent, with the goal of building an international hub of technology and innovation of the future.

5. Conclusion

The Outline sets out the objectives of constructing the Greater Bay Area as an international first-class bay area and a world-class city cluster. In light of the history of the three major international bay areas, the positive drive of talent construction is recognized. In this paper, a series of strategic recommendations are put forward from three aspects: innovation and development of science and technology industries, construction of a good environment for talent development, and improvement and refinement of talent development policies. This is aimed at enhancing the quality and efficiency of the construction of talent highlands in the Guangdong-Hong Kong-Macao Great Bay Area.

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