

Special Economic Zones in the Greater Bay Area:  
Legal Reform in an Age of Trade Retaliation and  
Regulatory Decoupling

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# Special Economic Zones in the Greater Bay Area: Legal Reform in an Age of Trade Retaliation and Regulatory Decoupling

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**Abstract:** This paper examines the role of Special Economic Zones (SEZs) in the Guangdong-Hong Kong-Macau Greater Bay Area (GBA), focusing on how they support innovation, foreign investment, and deeper international economic ties. It tracks how places like Shenzhen, Zhuhai, and Guangzhou's Nansha New Area have moved away from their early export-processing model. Today, they are centres for biotechnology, artificial intelligence, green industries, and digital trade. Their transformation reflects Beijing's efforts to promote sustainable and high-quality growth, especially through the 14th Five-Year Plan for 2021 to 2025. New regional measures, including the Special Legislative Plan for the GBA (2024 to 2027) and targeted development strategies for Qianhai, Hengqin, and Nansha, reinforce these ambitions and provide legal backing for reform. The SEZs now operate under more pressure. Labour costs have increased. Regional competitors are pulling in foreign capital. Trade with the United States remains unpredictable. In this environment, the GBA must do more than expand infrastructure. It must streamline regulation, reduce compliance burdens, and improve the legal conditions for investment. This paper calls for changes in four areas: technology, trade facilitation, environmental policy, and institutional rules. The SEZs need stronger intellectual property protections, modern customs systems, and clearer rules on data transfers. They also need to accelerate the use of renewable energy, expand access to green finance, and upgrade logistics with digital tools. If these priorities are addressed, the GBA SEZs can continue to attract international capital, support domestic innovation, and reinforce China's economic ties with the rest of the world.

**Keywords:** Foreign Direct Investment (FDI); Supply Chain; Connectivity; Green Technologies; AI; Biotechnology; Intellectual Property Rights; Regional Comprehensive Economic Partnership (RCEP)

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### 1. Introduction

Amid renewed geopolitical volatility, the Greater Bay Area's (GBA) Special Economic Zones (SEZs) are assuming a strategic economic role that extends beyond China's borders. The return of Donald Trump to the U.S. presidency has intensified trade tensions between Washington and Beijing, with the possibility of further tariffs, investment restrictions, and supply chain realignments. This re-escalation (particularly in critical sectors like semiconductors, green technologies, and artificial intelligence) poses serious challenges for China's integration into the global economy. In this context, the SEZs within the Greater Bay Area are tasked not only with advancing domestic innovation but also with buffering against external economic shocks. Their function as legal and technological bridges between China and international markets will be central to mitigating the fragmentation of trade and sustaining investor confidence amid global uncertainty.

This role is not new, but it has taken on new urgency. The SEZs within the Guangdong-Hong Kong-Macau GBA have played a significant role in China's economic development and global integration since the 1980s. SEZs such as Shenzhen, Zhuhai, and Guangzhou's Nansha New Area have driven their growth through trade liberalisation, foreign direct investment (FDI), and industrial innovation.<sup>1</sup> These zones have not only advanced

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<sup>1</sup> The definition of "Special Economic Zone" (SEZ) varies between Chinese and international contexts. In China, the term 经济特区 is traditionally used in a narrow sense, referring specifically to seven designated SEZs: Shenzhen, Zhuhai, and Shantou (Guangdong); Xiamen (Fujian); Hainan (Hainan); Kashgar (Xinjiang); and Horgos (Xinjiang). However, in international economic and policy, SEZs are understood in a broader sense to include various types of economic zones with distinct legal and regulatory regimes, such as free trade zones (自由贸易区), export-processing zones (出口加工区), economic and technological development zones (经济技术开发区), high-tech industrial development zones (高新技术产业开发区), and state-level new areas (国家新区). See e.g., UNCTAD, 'World Investment Report 2019: Special Economic Zones' (12 June 2019) 143-144 <[https://unctad.org/system/files/official-document/wir2019\\_en.pdf](https://unctad.org/system/files/official-document/wir2019_en.pdf)> accessed May 20, 2025; Douglas Zhihua Zeng, 'China's Special Economic Zones and Industrial Clusters: Success and Challenges' (2012) <[https://www.lincolnst.edu/app/uploads/legacy-files/pubfiles/2261\\_1600\\_Zeng\\_WP13DZ1.pdf](https://www.lincolnst.edu/app/uploads/legacy-files/pubfiles/2261_1600_Zeng_WP13DZ1.pdf)> accessed May 20, 2025. This paper adopts a functional and targeted definition of SEZs, focusing specifically on Shenzhen, Zhuhai, and Guangzhou Nansha New Area within the Guangdong-Hong Kong-Macau Greater Bay Area (GBA). This approach serves a critical analytical purpose: rather than treating SEZs as a broad and heterogeneous category, it allows for a focused examination of those zones that are central to the GBA's role as a high-tech innovation hub and a driver of economic integration between mainland China, Hong Kong, and Macau. These three SEZs have been at the forefront of China's institutional experimentation, facilitating regulatory reforms, foreign direct investment, and supply chain connectivity. Their selection is based on their direct contribution to China's national economic strategy and their potential to serve as models for future policy replication. While the GBA includes other zones with distinct legal and economic characteristics, this paper concentrates on the SEZs that play a defining role in the region's transformation into a globally competitive economic cluster.

local economies but have also become strategic centres for global trade, technological advancement, and high-end industries.

The development of SEZs in the GBA mirrors China's broader economic evolution. Initially established as export-oriented processing hubs, SEZs have undergone a transformation into centres of innovation. This shift has been reinforced since 2015 when China launched its Free Trade Zone (FTZ) Strategy in Guangdong province. The strategic focus highlights the critical role SEZs play in China's transition from a manufacturing-driven economy to one led by high-tech industries specializing in artificial intelligence, biotechnology, and green technologies.<sup>2</sup> Following that, the national government's 14th Five-Year Plan (2021–2025) for National Economic and Social Development positions the GBA as a central force for sustainable, innovative, and regionally integrated high-quality growth.<sup>3</sup> The recently released Special Legislative Plan for the Guangdong-Hong Kong-Macau Greater Bay Area (2024–2027) by the Standing Committee of Guangdong Province's 14th National People's Congress further cements the importance of SEZs. Between 2024 and 2027, Guangdong will have introduced nine new local regulations to address key areas such as employment, healthcare, rail transit, meteorological cooperation, and emerging industries. This ambitious legislative agenda includes landmark initiatives designed to enhance regional integration and foster innovation. The plan emphasises rule-of-law-driven reforms aimed at transforming the GBA into a world-class bay area with robust governance structures and cutting-edge economic sectors.<sup>4</sup> These legislative efforts reflect China's recognition of the GBA's pivotal role in its broader economic strategy, aligning regulatory frameworks with the demands of a modern, technology-driven global economy.

On the international stage, the GBA's SEZs must adjust to a changing geopolitical environment where regional and global partnerships are increasingly important. China's Belt and Road Initiative (BRI) and

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Further definitional considerations, including a more detailed typology of SEZs and their historical evolution, are addressed in Section 2.1 of this paper. See also 'FDI China Exclusive: The Best 21 China Free Trade Zones Guide 2025', *FDI China* (28 February 2023) <<https://fdichina.com/blog/china-free-trade-zones-guide/>> accessed May 20, 2025.

<sup>2</sup> State Council, 'Notice of the State Council on Issuing the Framework Plan for China (Guangdong) Pilot Free Trade Zone' (《国务院关于印发中国(广东)自由贸易试验区总体方案的通知》) (8 April 2015) <[https://www.gov.cn/zhengce/content/2015-04/20/content\\_9623.htm](https://www.gov.cn/zhengce/content/2015-04/20/content_9623.htm)> accessed May 20, 2025. Also see: State Council, 'Notice of the State Council on Issuing the Plan for Further Deepening the Reform and Opening up of China (Guangdong) Pilot Free Trade Zone' (《国务院关于印发进一步深化中国(广东)自由贸易试验区改革开放方案的通知》) (4 May 2018) <[https://www.gov.cn/zhengce/content/2018-05/24/content\\_5293009.htm](https://www.gov.cn/zhengce/content/2018-05/24/content_5293009.htm)> accessed May 20, 2025.

<sup>3</sup> National Development and Reform Commission, 'Outline of the 14th Five-Year Plan (2021–2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China' (《中华人民共和国国民经济和社会发展第十四个五年规划和 2035 年远景》) (13 March 2021) <[https://www.pkulaw.com/en\\_law/dad03bd96074290cbdfb.html](https://www.pkulaw.com/en_law/dad03bd96074290cbdfb.html)> accessed May 20, 2025.

<sup>4</sup> Standing Committee of Guangdong Province's 14th National People's Congress, 'Special Legislative Plan for the Guangdong-Hong Kong-Macau Greater Bay Area (2024–2027)' (《广东省第十四届人大常委会粤港澳大湾区专项立法计划(2024—2027 年)》) (3 September 2024) <[www.gd.gov.cn/gdywdt/zwzt/ygadwq/zxzc/content/post\\_4491509.html](http://www.gd.gov.cn/gdywdt/zwzt/ygadwq/zxzc/content/post_4491509.html)> accessed May 20, 2025.

participation in agreements such as the Regional Comprehensive Economic Partnership (RCEP) highlight the importance of SEZs in fostering connectivity and enhancing China's position in global supply chains.<sup>5</sup> The Guangdong Province Free Trade Zone (FTZ) in the GBA, holds significant importance in responding to shifting geopolitical conditions. Established by the State Council, it encompasses three primary areas: Guangzhou Nansha New Area, Shenzhen Qianhai-Shekou Area, and Zhuhai Hengqin New Area.<sup>6</sup> These SEZs are key to supporting China's BRI and its involvement in agreements such as the RCEP. Through the promotion of enhanced connectivity and deeper integration into global supply chains, the Guangdong Province FTZ acts as a conduit for strengthening trade and investment relationships with ASEAN nations, the European Union (EU), and other international partners. This positioning facilitates regional economic integration while advancing China's influence in the global economy.

This policy paper contends that the GBA SEZs are crucial not only for sustaining China's economic growth but also for advancing cutting-edge innovation, integrating regional economies, and promoting sustainable development practices. By developing the GBA, the Chinese government aims to promote the cutting-edge technological development, including new-generation information technology, high-end equipment manufacturing, new materials, new-generation communications technologies, 5G and mobile internet, biopharmaceuticals such as protein, high-end medical diagnostic equipment, genetic testing, modern Chinese medicine, intelligent robots, 3D printing and applications of BeiDou satellite navigation system and so forth.<sup>7</sup> Moreover, regulatory frameworks within these SEZs must evolve to remain attractive to foreign investment and facilitate smooth integration into global markets.<sup>8</sup> Continuous reforms that provide regulatory flexibility, robust IP

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<sup>5</sup> For instance, the Shanghai Pilot Free Trade Zone (FTZ), established in 2013, served as an experimental platform for introducing regulatory reforms designed to enhance openness in trade and service sectors by eliminating restrictions on both domestic and foreign enterprises. By 2018, the zone had drawn over 50,000 businesses, and by 2019, China had sanctioned the establishment of 18 additional FTZs. These zones contributed to improving the business investment climate through the simplification of filing and registration processes, facilitating the liberalisation of service industries, reforming foreign investment management institutions, and exploring capital account convertibility alongside financial sector reforms. The Shanghai Pilot FTZ implemented over 60 new measures, drawing from global best practices, to advance marine affairs, quarantine protocols, and streamline customs procedures. See Guangwen Meng & Douglas Zhihua Zeng, 'Structural Transformation Through Free Trade Zones: The Case of Shanghai' (2019) 26 *Transnational Corporations* 95.

<sup>6</sup> 'FDI China Exclusive: The Best 21 China Free Trade Zones Guide 2025', *FDI China* (28 February 2023) <<https://fdichina.com/blog/china-free-trade-zones-guide/>> accessed May 20, 2025. Also see: State Council, 'Notice of the State Council on Issuing the Framework Plan for China (Guangdong) Pilot Free Trade Zone' (《国务院关于印发中国(广东)自由贸易试验区总体方案的通知》) (8 April 2015) <[https://www.gov.cn/zhengce/content/2015-04/20/content\\_9623.htm](https://www.gov.cn/zhengce/content/2015-04/20/content_9623.htm)> accessed May 20, 2025.

<sup>7</sup> State Council, 'Outline Development Plan for the Guangdong-Hong Kong-Macau Greater Bay Area' (《粤港澳大湾区发展规划纲要》) (18 February 2019) <[https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline\\_Development\\_Plan.pdf](https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline_Development_Plan.pdf)> accessed May 20, 2025.

<sup>8</sup> World Bank, *World Development Report 2020: Trading for Development in the Age of Global Value Chains* (Washington, DC: World Bank, 2019) 185.

protections, and simplified compliance requirements are necessary. Aligning with international standards, especially in sectors like technology and finance, will be vital in maintaining the GBA's appeal as a global investment hub. As these zones encounter both opportunities and challenges—including rising labour costs and global economic uncertainties—they must ensure the incorporation of digital and green technologies. SEZs will need to integrate systems such as smart logistics and green finance, contributing to China's efforts to achieve its carbon neutrality goals by 2060.<sup>9</sup>

As for the method and scope, this policy paper adopts a mixed-methods approach to provide a comprehensive analysis of the domestication of International Economic Law (IEL) within the SEZs of the Greater Bay Area and its impact on the economic development of Macau, Hong Kong, mainland China, and the Asia-Pacific region. The methodology underpinning this policy paper draws on a structured analysis of primary and secondary sources spanning the period from the early 1980s to early 2025. Primary sources include key Chinese legal texts governing SEZs and foreign investment, such as the Foreign Investment Law (2019), the Personal Information Protection Law (2021), the Data Security Law (2021), the Cybersecurity Law (2017), and the Regulations on the Implementation of the Foreign Investment Law (2020). These are complemented by recent judicial developments, including the Supreme People's Court's 2025 Guidelines on cross-border arbitration and applicable law in the GBA, as well as regional instruments such as the Special Legislative Plan for the Guangdong-Hong Kong-Macau Greater Bay Area (2024–2027) and the Development Plans for Qianhai, Hengqin, and Nansha (2021–2022). International instruments analysed include the WTO TRIPS Agreement, the Regional Comprehensive Economic Partnership (RCEP), and China's Belt and Road Memoranda with ASEAN and EU partners. Secondary sources comprise academic literature and policy analyses focusing on international economic law (IEL), SEZ governance, investment facilitation, and digital trade regulation. These include scholarly articles on the evolution of Chinese SEZ policy, regional integration, and legal convergence, as well as thematic studies on IEL domestication in China and the role of subnational experimentation. Notably, works such as Douglas Zhihua Zeng's typology of SEZs, and comparative analyses of SEZ regulatory environments in Southeast Asia and the EU, are employed to assess the GBA's institutional positioning. The research also incorporates official statistical data (e.g., FDI inflows, R&D spending, supply chain volume) from Chinese government databases and international organisations to support empirical claims. This blended approach provides a robust legal, policy, and economic foundation for evaluating the future

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<sup>9</sup> Ministry of Ecology and Environment of the People's Republic of China, 'China's Policies and Actions for Addressing Climate Change (2020)' (June 2021) <<http://www.ncsc.org.cn/yjcg/cbw/202111/P020211117418821628432.pdf>> accessed May 20, 2025.

role of GBA SEZs in an increasingly fragmented international order.<sup>10</sup> Semi-structured interviews with key stakeholders (including government officials, legal experts, academics, and business representatives from Macau, Hong Kong, and mainland China) offer practical insights into the challenges and opportunities associated with this process. Quantitative data on key economic indicators like FDI, trade volume, GDP growth, and employment rates are collected from official sources to assess the economic impact. The data analysis combines thematic analysis of qualitative data to identify key patterns and trends, along with regression analysis of quantitative data to establish relationships between the domestication of IEL in SEZs and economic performance. This multi-layered methodological design is essential for capturing the interplay between legal reforms, institutional experimentation, and economic outcomes, allowing the paper to move beyond abstract legal commentary and offer grounded, evidence-based recommendations for the future evolution of SEZs as vectors of China's international economic engagement.

In the terms of substance, this policy paper presents an analysis and some recommendations for advancing the development of SEZs within the GBA across four critical areas.

- The first area focuses on **technological innovation**, positioning SEZs as leading centres for global innovation. Emphasis is placed on high-tech fields such as biotechnology and AI, where the GBA has the potential to become a dominant force within the global technology ecosystem.
- The second area concerns **supply chain connectivity**. Strengthening the role of SEZs as pivotal nodes in international supply chains involves improving logistics infrastructure, streamlining customs procedures, and fostering deeper integration with global trade networks, particularly with ASEAN and RCEP member states.
- The third area emphasises on the aspect of **sustainability**, with SEZs taking a leadership role in the adoption of green technologies and sustainable business practices. This is essential not only for achieving China's carbon neutrality targets but also for positioning SEZs as global leaders in green industries.
- The final area highlights that **regulatory reforms** are crucial for ensuring that SEZs remain attractive destinations for foreign

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<sup>10</sup> The rationale behind this choice of methodology is to ensure both an in-depth understanding of the legal frameworks governing SEZs and a broader perspective on their development and implementation across different jurisdictions. Doctrinal research serves as the foundation for this study, as it enables a thorough examination of the legal texts, principles, and norms underpinning the SEZs in GBA. This method is crucial for identifying the key features and interactions between domestic legal frameworks and international economic law. By analysing treaties, national laws, regulations, and case law, the article can offer a comprehensive understanding of the legal landscape surrounding SEZs. Comparative analysis complements the doctrinal research by providing a broader context for the findings. This approach allows the article to explore how SEZs in the GBA compare to those in other regions, highlighting similarities, differences, and potential lessons to be learned. This comparison not only reveals unique aspects of the GBA's SEZs but also contributes to a more profound understanding of the domestication process of international economic law across various jurisdictions.



investment. Maintaining flexible regulatory frameworks, enhancing legal certainty, and aligning domestic laws with international standards are key to sustaining investor confidence and promoting long-term growth.

The paper is structured as follows. The Introduction provides context on the significance of SEZs in the GBA and their role in China's economic transformation. The "Overview" section outlines the evolution of SEZs, highlighting their shift from export-processing zones to innovation hubs. "Historical Development" covers the origins and milestones of SEZs like Shenzhen and Zhuhai, while the "Current Challenges and Opportunities" section discusses competitive pressures, regulatory reforms, and the green transformation. "Supply Chain Connectivity" explores logistics improvements and trade facilitation, and "Regulatory Flexibility and Future Reforms" examines recent and future legal reforms essential for sustaining foreign investment and innovation. The paper concludes with recommendations for maintaining the GBA's global competitiveness.

## 2. Strategic Evolution of SEZs in the Greater Bay Area: From Policy Experimentation to Global Innovation Platforms

The GBA, integrating nine cities in Guangdong province with the Special Administrative Regions of Hong Kong and Macau, stands as one of China's most economically dynamic regions. The GBA extends beyond the framework of SEZs, functioning as a broader regulatory structure in which SEZs hold a significant role.<sup>11</sup>

Central to its success is the strategic implementation of SEZs, designed to attract foreign investment, drive innovation, and accelerate economic growth. Over the decades, SEZs like Shenzhen, Zhuhai, and Guangzhou's Nansha New Area have reshaped China's internal economic landscape and placed the GBA at the forefront of global commerce and innovation.

### 2.1 The Origin and Role of Shenzhen, Zhuhai, and Other Key SEZs

The concept of SEZs was introduced in China in the late 1970s as the country embarked on reform and opening-up under Deng Xiaoping's leadership. Recognising the need to attract foreign capital and integrate China into the global economy, the Chinese government established its first batch of four SEZs in Shenzhen, Zhuhai, and Shantou in Guangdong Province, and Xiamen in Fujian Province in August 1980. The

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<sup>11</sup> While SEZs contribute to economic innovation and development within the region, the GBA encompasses a wider array of policies and strategies aimed at promoting integration across multiple sectors, including finance, technology, and infrastructure. This regulatory framework supports coordinated development and aims to enhance connectivity and competitiveness both domestically and internationally.

development of SEZs in the GBA mirrors China's shift from export-driven manufacturing to a knowledge-based, innovation-focused economy.

Established in 1980, Shenzhen, China's first SEZ, was initially an export-processing zone. Shenzhen's strategic location adjacent to Hong Kong provided access to international capital, technology, and expertise. The zone offered unprecedented incentives, such as tax breaks, land-use rights, simplified import/export procedures, and relaxed regulatory conditions, making it an attractive destination for foreign direct investment. Its proximity to Hong Kong allowed it to attract foreign capital, benefiting from preferential policies such as tax breaks, a relaxed regulatory environment, and simplified import/export procedures. This model was replicated in Zhuhai, another early one of China's first SEZs, which leveraged its strategic location near Macau to foster regional trade integration.

The development of SEZs in the GBA mirrors China's shift from export-driven manufacturing to a knowledge-based, innovation-focused economy. Established in 1980, Shenzhen, China's first SEZ, was initially an export-processing zone. Its proximity to Hong Kong allowed it to attract foreign capital, benefiting from preferential policies such as tax breaks, a relaxed regulatory environment, and simplified import/export procedures. This model was replicated in Zhuhai, another one of China's first SEZs, which leveraged its strategic location near Macau to foster regional trade integration.

The concept of SEZs was introduced in China in the late 1970s as the country embarked on reform and opening-up under Deng Xiaoping's leadership.<sup>12</sup> Recognising the need to attract foreign capital and integrate China into the global economy, in August 1980, the Chinese government established its first batch of four SEZs in Shenzhen, Zhuhai, and Shantou in Guangdong Province, and Xiamen in Fujian Province.<sup>13</sup> Shenzhen's strategic location adjacent to Hong Kong provided access to international capital, technology, and expertise. The zone offered unprecedented incentives, such as tax breaks, land-use rights, and relaxed regulatory conditions, making it an attractive destination for foreign direct investment.

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<sup>12</sup> Justin Yifu Lin, Jiajun Xu, and Junjie Xia, 'Explaining Reform and Special Economic Zones in China' in Arkebe Oqubay and Justin Yifu Lin (eds), *The Oxford Handbook of Industrial Hubs and Economic Development* (OUP 2020).

<sup>13</sup> The Standing Committee of China's Fifth National People's Congress, at its 15th plenary session, approved the four coastal cities of Shenzhen, Zhuhai, Shantou, and Xiamen as SEZs which could enjoy more preferential laws and economic policies. See Jiaxiang Hu, 'From SEZ to FTZ: An Evolutionary Change Toward FDI in China' in Julien Chaisse, Leila Choukroune, and Sufian Jusoh (eds), *Handbook of International Investment Law and Policy* (Springer 2021). Also see: Standing Committee of the National People's Congress, 'Resolution of the Standing Committee of the Fifth National People's Congress on Approving the Regulations on Special Economic Zones in Guangdong Province' (《第五届全国人民代表大会常务委员会关于批准<广东省经济特区条例>的决议》) (26 August 1980) <<https://law.pkulaw.com/falv/766777df6359101cbdfb.html>> accessed May 20, 2025.

Table 1. Overview of Key SEZs in the Greater Bay Area

SEZ Name	Year Established	Geographic Location	Initial Focus	Current Focus	Key Achievements
<b>Shenzhen</b>	1980	Adjacent to Hong Kong	Export-processing zone	High-tech industries (AI, biotech, ICT)	Transformation into a global tech hub; home to Huawei, Tencent, BYD
<b>Zhuhai</b>	1980	Near Macau	Cross-border trade and tourism	High-tech manufacturing, tourism	Fostered regional integration with Macau; development of Hengqin zone
<b>Guangzhou's Nansha New Area</b>	2012	Pearl River Delta	Advanced services and logistics	High-tech manufacturing, smart city development	Strategic logistics hub; integration with global supply chains

Source: Elaborated by the author from public sources

Zhuhai, positioned near Macau, was designed to leverage its geographical proximity for cross-border trade and investment. While Shenzhen became synonymous with mass manufacturing and later high-tech innovation, Zhuhai focused on developing ties with Macau and fostering industries such as tourism and high-tech manufacturing. These zones were instrumental in testing market-oriented reforms, with each SEZ playing a unique role in China's broader economic strategy.

Table 2: Timeline of Key Milestones in the Development of SEZs in the Greater Bay Area

Year	Event	Description	Significance
1980	<b>Establishment of Shenzhen SEZ</b>	China's first SEZ, created to attract foreign investment and initiate economic reforms.	Served as a testing ground for market-oriented policies and opened China to global trade.
1980	<b>Establishment of Zhuhai SEZ</b>	Positioned near Macau to leverage cross-border trade and investment.	Focused on tourism and light manufacturing, promoting regional integration with Macau.
1990s	<b>Rapid Industrial Growth in Shenzhen</b>	Shenzhen becomes a major manufacturing hub for electronics and textiles.	Significant contributor to China's export economy and integration into global supply chains.
2000s	<b>Shift Toward High-Tech Industries</b>	- <b>Shenzhen:</b> Emerges as a global tech hub; home to companies like Huawei and Tencent.	Marks the transition from low-cost manufacturing to innovation-driven growth.

		- <b>Zhuhai:</b> Diversifies into high-tech manufacturing and biopharmaceuticals.	
2012	<b>Establishment of Guangzhou's Nansha New Area</b>	Part of the Guangdong Free Trade Zone, focusing on advanced services and logistics.	Enhances connectivity within the Pearl River Delta and global trade networks.
2015	<b>Launch of the Guangdong Free Trade Zone</b>	Includes Nansha (Guangzhou), Qianhai and Shekou (Shenzhen), and Hengqin (Zhuhai). <sup>14</sup>	Promotes trade liberalisation, financial innovation, and regional cooperation.
2016	<b>Development of Judicial Support for FTZs</b>	Liberalises and internationalise China's arbitration regime by extending the access of enterprises registered in FTZs to offshore arbitration and ad hoc arbitration	Promotes the development of arbitration in resolving disputes within SEZs <sup>15</sup>
2019	<b>Promulgation of the Outline Development Plan for GBA</b>	Introduces policies that will further facilitate the economic and social integration of GBA	Deepens cooperation among Guangdong, Hong Kong, and Macau <sup>16</sup>
2020	<b>Implementation of the Foreign Investment Law</b>	Streamlines legal framework for foreign investors.	Enhances legal protections and equal treatment, boosting the attractiveness of SEZs.
2021	<b>14th Five-Year Plan Emphasises GBA Development</b>	Positions the GBA as a core driver of innovation and sustainable growth.	Encourages SEZs to specialise in high-tech industries and green technologies.
2021	<b>China's Participation in RCEP</b>	World's largest free trade agreement comes into effect.	SEZs in the GBA serve as gateways for enhanced trade with RCEP member countries.
2021	<b>Adoption of the Personal Information Protection Law</b>	Establishes comprehensive data protection regulations.	Affects how SEZs handle data, important for attracting international tech firms.

<sup>14</sup> State Council, 'Notice of the State Council on Issuing the Framework Plan for China (Guangdong) Pilot Free Trade Zone' (《国务院关于印发中国(广东)自由贸易试验区总体方案的通知》) (8 April 2015) <[https://www.gov.cn/zhengce/content/2015-04/20/content\\_9623.htm](https://www.gov.cn/zhengce/content/2015-04/20/content_9623.htm)> accessed May 20, 2025; Guangdong Province People's Congress (incl. Standing Committee), 'Regulation on the China (Guangdong) Pilot Free Trade Zone' (《中国(广东)自由贸易试验区条例》) (1 July 2016) <<https://www.tid.gov.hk/english/aboutus/tradecircular/cic/asia/2016/files/ci2016463a.pdf>> accessed May 20, 2025.

<sup>15</sup> Supreme People's Court, 'Opinions of the Supreme People's Court on the Provision of Judicial Safeguards for the Construction of Pilot Free Trade Zones' (《最高人民法院关于为自由贸易试验区建设提供司法保障的意见》) (30 December 2016) <<https://cicc.court.gov.cn/html/1/219/199/411/807.html>> accessed May 20, 2025. Also see: 'China Extends Access to Offshore Arbitration', *HSF Arbitration Notes* (13 January 2017) <<https://www.herbertsmithfreehills.com/notes/arbitration/2017-01/china-extends-access-to-offshore-arbitration>> accessed May 20, 2025.

<sup>16</sup> State Council, 'Outline Development Plan for the Guangdong-Hong Kong-Macau Greater Bay Area' (《粤港澳大湾区发展规划纲要》) (18 February 2019) <[https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline\\_Development\\_Plan.pdf](https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline_Development_Plan.pdf)> accessed May 20, 2025.

	(PIPL)		
2021-2022	<b>Issuance of Development Plans for SEZs within the GBA</b>	<ul style="list-style-type: none"> <li>- ‘Qianhai Plan’ (2021): enhances Shenzhen-Hong Kong cooperation<sup>17</sup></li> <li>- ‘Hengqin Plan’ (2021): builds a Guangdong-Macau intensive cooperation zone<sup>18</sup></li> <li>- ‘Nansha Plan’ (2022): deepens comprehensive cooperation among Guangdong, Hong Kong, and Macau with a global perspective<sup>19</sup></li> </ul>	Outlines strategic roles and development path for each GBA SEZ

Source: Elaborated by the author from public sources

In the early 2010s, Guangzhou’s Nansha New Area was added to the list of China’s State-Level New Area,<sup>20</sup> marking a new phase of development, and then became part of the Guangdong Free Trade Zone in 2015.<sup>21</sup> Nansha was designed to advance modern services, high-tech industries, and logistics, linking China’s domestic market with global supply chains.<sup>22</sup> The establishment of Nansha reflects the evolution of SEZs from export-processing zones to integrated hubs of innovation and logistics, aligning with China’s strategic goals of sustainable and high-quality growth.

<sup>17</sup> Central Committee of the Communist Party of China and State Council, ‘Plan for Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone’ [‘Qianhai Plan’] (《全面深化前海深港现代服务业合作区改革开放方案》) (6 September 2021) <[https://www.gov.cn/zhengce/2021-09/06/content\\_5635728.htm](https://www.gov.cn/zhengce/2021-09/06/content_5635728.htm)> accessed May 20, 2025.

<sup>18</sup> Central Committee of the Communist Party of China and State Council, ‘The Master Plan of the Development of the Guangdong-Macau Intensive Cooperation Zone in Hengqin’ [‘Hengqin Plan’] (《横琴粤澳深度合作区建设总体方案》) (5 September 2021) <[https://www.gov.cn/zhengce/2021-09/05/content\\_5635547.htm](https://www.gov.cn/zhengce/2021-09/05/content_5635547.htm)> accessed May 20, 2025.

<sup>19</sup> State Council, ‘Notice by the State Council of Issuing the Overall Plan of Nansha of Guangzhou for Deepening the Comprehensive Cooperation among Guangdong, Hong Kong and Macau with a Global Perspective’ [‘Nansha Plan’] (《国务院关于印发广州南沙深化面向世界的粤港澳全面合作总体方案的通知》) (6 June 2022) <[https://www.gov.cn/zhengce/content/2022-06/14/content\\_5695623.htm](https://www.gov.cn/zhengce/content/2022-06/14/content_5695623.htm)> accessed May 20, 2025.

<sup>20</sup> National Development and Reform Commission, ‘Notice of the National Development and Reform Commission on the Issuance of the Development Plan for Guangzhou Nansha New Area’ (《国家发展和改革委员会关于印发广州南沙新区发展规划的通知》) (12 September 2012) <<https://www.tid.gov.hk/english/aboutus/tradecircular/cic/asia/2012/files/ci2012815a.pdf>> accessed May 20, 2025.

<sup>21</sup> Nansha was designated as an administrative district of Guangzhou City in 2005, but it cannot be considered as a SEZ until 2012 when it was classified as a “State-Level New Area” (国家新区). State Council, ‘Notice of the State Council on Issuing the Framework Plan for China (Guangdong) Pilot Free Trade Zone’ (《国务院关于印发中国(广东)自由贸易试验区总体方案的通知》) (8 April 2015) <[https://www.gov.cn/zhengce/content/2015-04/20/content\\_9623.htm](https://www.gov.cn/zhengce/content/2015-04/20/content_9623.htm)> accessed May 20, 2025.

<sup>22</sup> Department of Commerce of Guangdong Province, ‘China (Guangdong) Pilot Free Trade Zone’ (3 December 2019) <[http://com.gd.gov.cn/ggfw/vgajmhzzxpt/ig/content/post\\_2710025.html#:~:text=The%20Guangdong%20Free%20Trade%20Zone%2C%20as%20a%20pioneering,free%20trade%20between%20Guangdong%2C%20Hong%20Kong%20and%20Macau](http://com.gd.gov.cn/ggfw/vgajmhzzxpt/ig/content/post_2710025.html#:~:text=The%20Guangdong%20Free%20Trade%20Zone%2C%20as%20a%20pioneering,free%20trade%20between%20Guangdong%2C%20Hong%20Kong%20and%20Macau)> accessed May 20, 2025.

This transformation is significant not only for domestic growth but also for international integration. The SEZs serve as key drivers of China's participation in global supply chains, and their success has been recognised globally. In particular, the SEZs in the GBA are aligning their development strategies with China's BRI, connecting the Asian, European, and African markets.<sup>23</sup> This places the GBA SEZs at the crossroads of international trade, fostering innovation for both local industries and global markets.

## 2.2 Achievements and Contributions to China's Economic Growth and Trade

The contributions of SEZs in the GBA to China's economic growth are substantial. Shenzhen, which has grown from a small fishing village into a city of over 12 million people, boasts a GDP that rivals many national economies. Its success demonstrates the power of SEZs in transforming local economies into global hubs of commerce and innovation. By the 1990s, Shenzhen had become a major manufacturing base, producing goods for export to global markets, particularly in electronics and textiles. This growth was driven by substantial inflows of foreign direct investment, attracted by favourable policies and the city's proximity to Hong Kong.

Zhuhai, though smaller in scale, has also played a significant role in regional economic integration, especially in fostering cross-border cooperation with Macau. Zhuhai's SEZ focuses on high-tech industries and tourism, aligning its development strategy with Macau's economic diversification plans.<sup>24</sup> The 'Hengqin Plan' (2021) highlights the development of several industries to promote Macau's economic diversification: (i) scientific and technological research and high-end manufacturing industries; (ii) Macao branded industries, such as traditional Chinese medicine; (iii) cultural tourism, convention and exhibition, and commercial and trade industries; and (iv) modern financial industry.<sup>25</sup> The collaboration between Zhuhai and Macau has boosted local

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<sup>23</sup> For example, Shenzhen Qianhai serves as a major fintech hub, partnering with European financial institutions to enhance cross-border financial services and investment flows. Guangzhou Nansha has developed one of the busiest ports in the region, facilitating increased maritime trade with Africa and Europe under the BRI framework. Zhuhai Hengqin is fostering biotech collaborations with European research institutions, promoting advancements in healthcare and life sciences that cater to global markets. Additionally, the China-Europe Railway Express utilises GBA ports like Shenzhen and Guangzhou to streamline logistics, reducing transit times and enhancing supply chain efficiency between China and Europe. Huawei, headquartered in Shenzhen, collaborates with international partners to integrate its technology into global telecommunications networks, reinforcing the GBA's role in global tech supply chains.

<sup>24</sup> Department of Commerce of Guangdong Province, 'China (Guangdong) Pilot Free Trade Zone' (3 December 2019)

[http://com.gd.gov.cn/ggfw/ygajmhzzxpt/ig/content/post\\_2710025.html#:~:text=The%20Guangdong%20Free%20Trade%20Zone%2C%20as%20a%20pioneering,free%20trade%20between%20Guangdong%2C%20Hong%20Kong%20and%20Macau](http://com.gd.gov.cn/ggfw/ygajmhzzxpt/ig/content/post_2710025.html#:~:text=The%20Guangdong%20Free%20Trade%20Zone%2C%20as%20a%20pioneering,free%20trade%20between%20Guangdong%2C%20Hong%20Kong%20and%20Macau) accessed May 20, 2025.

<sup>25</sup> See Central Committee of the Communist Party of China & State Council, 'The Master Plan of the Development of the Guangdong-Macau Intensive Cooperation Zone in Hengqin' (《横琴粤澳深度合作

industries and contributed to the broader goals of the GBA, promoting cross-border trade and investment.<sup>26</sup>

Guangzhou's Nansha New Area, established as part of the Guangdong Free Trade Zone, exemplifies the future direction of SEZs in the GBA. Nansha focuses on advanced services, high-tech manufacturing, and logistics, positioning itself as a hub for trade between mainland China and international markets.<sup>27</sup> Notable examples include the development of a fully automated terminal at Nansha Port, the first of its kind in the region.<sup>28</sup> This terminal utilises advanced technologies such as artificial intelligence (AI), 5G, and autonomous vehicles, significantly increasing the port's handling capacity and operational efficiency. The port also serves as a major hub for cold chain logistics, facilitating the rapid distribution of perishable goods across China, particularly fruit imports like cherries and durians. Furthermore, major projects like the construction of a logistics park by Cosco Shipping bolster Nansha's status as a global logistics hub, integrating warehousing, cross-border e-commerce, and cold chain operations. In October 2024, the introduction of a new policy, New Customs Measures to Support Innovative Development in Nansha Guangzhou, further underscores the emphasis on and promotion of the transportation industry in the Nansha New Area.<sup>29</sup> Its strategic location along the Pearl River Delta enables it to serve as a critical node in the GBA's integration with global supply chains.

Overall, the GBA's SEZs have been instrumental in positioning China as a global manufacturing leader and trade hub. By the early 2000s, they were responsible for a significant portion of China's exports, particularly in high-value sectors like consumer electronics and industrial machinery. Moreover, SEZs helped foster the growth of private enterprises, enabling diversification of China's industrial base away from state-owned enterprises and facilitating the rise of a vibrant private sector.

### 2.3 Transition from Manufacturing Hubs to High-Tech Innovation Centres

As China's economy has matured, the SEZs within the GBA have profoundly evolved from traditional manufacturing bases into premier

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合作区建设总体方案》) (5 September 2021) <[https://www.gov.cn/zhengce/2021-09/05/content\\_5635547.htm](https://www.gov.cn/zhengce/2021-09/05/content_5635547.htm)> accessed May 20, 2025, Articles 6-9.

<sup>26</sup> Central Committee of the Communist Party of China and State Council, 'The Master Plan of the Development of the Guangdong-Macau Intensive Cooperation Zone in Hengqin' (《横琴粤澳深度合作区建设总体方案》) (5 September 2021) <[https://www.gov.cn/zhengce/2021-09/05/content\\_5635547.htm](https://www.gov.cn/zhengce/2021-09/05/content_5635547.htm)> accessed May 20, 2025.

<sup>27</sup> State Council, 'Notice of the State Council on Issuing the Framework Plan for China (Guangdong) Pilot Free Trade Zone' (《国务院关于印发中国(广东)自由贸易试验区总体方案的通知》) (8 April 2015) <[https://www.gov.cn/zhengce/content/2015-04/20/content\\_9623.htm](https://www.gov.cn/zhengce/content/2015-04/20/content_9623.htm)> accessed May 20, 2025.

<sup>28</sup> Ibid.

<sup>29</sup> Guangdong Branch of the General Administration of Customs, 'New Customs Measures to Support Innovative Development in Nansha Guangzhou' (《海关支持广州南沙创新发展新一轮措施》) (2 December 2024) <[www.gd.gov.cn/hdjl/hyggq/content/post\\_4607427.html](http://www.gd.gov.cn/hdjl/hyggq/content/post_4607427.html)> accessed May 20, 2025.



high-tech innovation centres. This evolution aligns with the global progression of SEZs from Industrial Zone 1.0 (export-processing zones) to Industrial Zone 4.0 (smart and eco-industrial zones), as outlined by Douglas Zhihua Zeng.<sup>30</sup>

#### Evolution of SEZs in the GBA:

- Industrial Zone 1.0 to 2.0: Initially, SEZs like Shenzhen and Zhuhai were established as Industrial Zone 1.0, focusing on attracting FDI through labour-intensive manufacturing. Shenzhen, established in 1980, capitalised on its proximity to Hong Kong, offering tax breaks, relaxed regulations, and streamlined import/export procedures. Zhuhai mirrored this model by leveraging its strategic location near Macau to enhance regional trade integration.
- Industrial Zone 2.0 to 3.0: As global manufacturing competition intensified and labour costs in China rose, the GBA SEZs transitioned to Industrial Zone 2.0, emphasising technological innovation and higher value-added industries. By the mid-2000s, Shenzhen had evolved into a global technology hub, attracting tech giants like Huawei and Tencent, which are now leaders in telecommunications and AI. Similarly, Zhuhai Hengqin New Area diversified into biotechnology and renewable energy, exemplifying the shift towards Industrial Zone 3.0 with a focus on sustainable and integrated industrial development.<sup>31</sup>
- Industrial Zone 4.0: The Pinnacle of SEZ Evolution in the GBA: Today, GBA SEZs represent Industrial Zone 4.0, integrating advanced digital technologies and sustainable practices to create smart and eco-industrial zones. These SEZs are not only centres of innovation but also models of comprehensive, high-value economic ecosystems. For instance:
- Shenzhen Qianhai-Shekou Area: Positioned as a fintech powerhouse, Qianhai collaborates with global financial institutions to develop blockchain-based financial services and digital banking solutions. Companies like Ping An Insurance and Lufax are pioneering advancements that enhance cross-border financial transactions and digital economies, setting GBA SEZs apart from earlier SEZ generations. Furthermore, in order to promote the high-quality development of the data industry in Qianhai, the Shenzhen Qianhai International Data Industry Park was established in November

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<sup>30</sup> Douglas Zhihua Zeng, 'The Past, Present, and Future of Special Economic Zones and Their Impact' (2021) 24 *Journal of International Economic Law* 259, 262-265.

<sup>31</sup> State Council, 'Outline Development Plan for the Guangdong-Hong Kong-Macau Greater Bay Area' (《粤港澳大湾区发展规划纲要》) (18 February 2019)

<[https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline\\_Development\\_Plan.pdf](https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline_Development_Plan.pdf)> accessed May 20, 2025.



2024, with the release of the Implementation Plan for Promoting the Aggregation and Development of Qianhai Data Elements with High Quality.<sup>32</sup>

- Guangzhou Nansha New Area: Nansha has been promoting the construction and operation of new energy automotive manufacturing, and also driving forward AI developments in the commercialisation of self-driving.<sup>33</sup> Nansha also exemplifies smart logistics and advanced manufacturing by integrating the Internet of Things (IoT) and AI to optimise supply chain management. The Nansha AI Innovation Centre, in partnership with Siemens, develops smart factory solutions, while the Cosco Shipping Logistics Park employs autonomous vehicles and AI-driven systems to revolutionise global logistics standards.
- Zhuhai Hengqin New Area: Hengqin Bio-Island attracts leading biotech firms and research institutions, such as Sino Biopharmaceutical, fostering international collaborations in medical research and pharmaceutical development. The “Hengqin-Macao Integrated Smart Zero-Carbon Power Plant” that received approximately 960 million RMB uses “Tianshu-1” digital system, which will provide real-time control and intelligent adjustment of all energy facilities.<sup>34</sup> Additionally, Hengqin’s investment in renewable energy projects, including LONGi Green Energy’s solar farms, underscores its commitment to sustainable growth and positions it as a leader in green technologies.<sup>35</sup>

The GBA SEZs distinguish themselves from earlier SEZ generations through several key factors:

The SEZs in the Greater Bay Area have successfully transitioned from traditional manufacturing hubs to elite high-tech innovation centres, embodying the latest evolution of SEZs globally. By integrating advanced technologies, fostering strategic international partnerships, and implementing comprehensive policy support, GBA SEZs stand out as the preeminent position of China’s economic zones. They not only drive

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<sup>32</sup> Shenzhen Municipal Government Services and Data Management Bureau & Shenzhen Qianhai Authority, ‘Implementation Plan for Promoting the Aggregation and Development of Qianhai Data Elements with High Quality’ (《高质量推动前海数据要素集聚发展实施方案》) (12 November 2024) <[qh.sz.gov.cn/sygnan/qhzz/dtzz/content/post\\_11718109.html](http://qh.sz.gov.cn/sygnan/qhzz/dtzz/content/post_11718109.html)> accessed May 20, 2025.

<sup>33</sup> Guangzhou Nansha Bureau of Investment Promotion, ‘Invest Nansha’ (21 April 2024) <<http://www.gzns.gov.cn/attachment/7/7591/7591120/9609084.pdf>> accessed May 20, 2025.

<sup>34</sup> ‘Hengqin-Macao Smart Zero-Carbon Power Plant gets CNY960 million funding’ *GD Today* (23 August 2023) <[https://www.newsgd.com/node\\_5c070fdd03/49d503b9f4.shtml](https://www.newsgd.com/node_5c070fdd03/49d503b9f4.shtml)> accessed May 20, 2025.

<sup>35</sup> Hanzhong Wang, ‘Creating Energy Revolution Hengqin Model and implementing 2035 First-class Strategy -- The Strategic Significance of National Power Investment Hengqin Model from the perspective of Global Energy Changes’ (《开创能源革命“横琴模式” 践行“2035 一流战略”——从全球能源大变局看国家电投“横琴模式”的战略意义》) *Xinhuanet* (21 May 2020) <[www.xinhuanet.com/politics/2020-05/21/c\\_1126016300.htm](http://www.xinhuanet.com/politics/2020-05/21/c_1126016300.htm)> accessed May 20, 2025.

regional economic growth and innovation but also position the GBA as a leading global hub for high-tech industries and sustainable development.

### 3. Confronting Structural Constraints: Competitive Pressures, Reform Imperatives, and Sustainability Frontiers

As the GBA seeks to reinforce its position as a key driver of China's economic future, the SEZs within the region face significant challenges and emerging opportunities. The shifting global economic landscape, rising costs, and regulatory complexities pose hurdles that need to be addressed. However, these challenges also present opportunities for SEZs to lead in technological innovation, green transformation, and enhanced global competitiveness.

#### 3.1 Competitive Pressures and Rising Costs in Traditional Industries

One of the primary obstacles facing SEZs in the GBA is the intensifying competition from other emerging economies. The expansion of low-cost manufacturing centres in Southeast Asia, notably in Vietnam, Thailand, and Indonesia, has significantly undermined China's traditional comparative advantage in labour-intensive sectors.<sup>36</sup> These nations offer not only lower labour costs but also attractive tax structures and simplified regulatory systems, making them highly appealing to foreign investors. As a result, FDI is increasingly being diverted to these Southeast Asian countries. For example, Vietnam's manufacturing sector has seen substantial growth, attracting major global brands in electronics and textiles due to its cost-effective labour and strategic incentives.<sup>37</sup>

Furthermore, these Southeast Asian nations have been proactive in developing their own SEZs and industrial parks, designed to accommodate the needs of international enterprises. Thailand's Eastern Economic Corridor (EEC),<sup>38</sup> for instance, offers streamlined customs procedures and advanced infrastructure, while Indonesia's Batam Free Trade Zone provides tax exemptions and simplified business setup processes. Such initiatives not only reduce operational costs for foreign companies but also improve logistical efficiencies, further diminishing the appeal of the GBA's traditional manufacturing SEZs.

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<sup>36</sup> 'Evaluating the Rationale and Challenges of Shifting Supply Chains from China to Southeast Asia' *ARC Group* (8 July 2024) <<https://arc-group.com/shifting-supply-chains-china-to-southeast-asia/>> accessed May 20, 2025.

<sup>37</sup> Cece Nguyen, 'Why Manufacturing is Driving Vietnam's Growth' *Vietnam Briefing* (4 January 2022) <[www.vietnam-briefing.com/news/why-manufacturing-is-driving-vietnams-growth.html](http://www.vietnam-briefing.com/news/why-manufacturing-is-driving-vietnams-growth.html)> accessed May 20, 2025.

<sup>38</sup> 'Thailand Meets Germany - Forging Stronger Business Partnerships on Bio-Circular-Green Economy in the Eastern Economic Corridor of Thailand', *EEC News Release* (7 May 2024) <[www.eeco.or.th/en/news/1805](http://www.eeco.or.th/en/news/1805)> accessed May 20, 2025.

In response to these competitive pressures, SEZs in the GBA are implementing several strategic measures to maintain and increase their attractiveness to investors:

- **Shift to High-Tech and Knowledge-Intensive Industries:** Aware of the declining benefits from low-cost manufacturing, SEZs in the GBA are transitioning towards high-tech, knowledge-based industries. Shenzhen, for example, has evolved into a global technological hub, attracting multinational corporations and fostering a dynamic startup ecosystem. Companies such as Huawei, Tencent, BYD, and DJI are at the forefront of innovations in telecommunications, AI, electric vehicles, drone technology, and biotechnology, positioning Shenzhen as a centre for technological advancement rather than solely manufacturing.<sup>39</sup>
- **Enhanced Innovation and R&D Investments:** In the year 2023, the R&D expenditure of the GBA reached nearly 500 billion yuan, with an average annual growth rate of more than 30 per cent.<sup>40</sup> GBA SEZs are increasing their investment in research and development (R&D) to drive technological innovation. Initiatives like the GD-HK-MC Greater Bay Area Sci-Tech Collaborative Innovation Alliance encourage collaboration between universities, research institutions, enterprises, and local sci-tech associations.<sup>41</sup> This cooperative environment accelerates the commercialisation of new technologies, thereby strengthening the region's competitive standing in global markets.
- **Improvement of Business Environment and Regulatory Frameworks:** To attract and retain foreign investment, GBA SEZs are continually improving their business environments through regulatory reforms and more efficient administrative processes. The adoption of “negative lists” for foreign investment access in FTZs in 2015,<sup>42</sup> and for cross-border trade in services in FTZs in 2024,<sup>43</sup>

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<sup>39</sup> ‘Shenzhen, a trailblazer of China’s deepened reform, opening up’, *Xinhuanet* (20 December 2023) <<https://english.news.cn/20231220/d4df534eefb8491ab5cbd610cec86cfa/c.html>> accessed May 20, 2025.

<sup>40</sup> ‘Benchmarking the Bay Area: A Five-Year Race Towards World-Class Status’ (《湾区对标：五年竞跑迈向国际一流》) *Nanfang News* (7 January 2025) <[https://www.cnbayarea.org.cn/news/topics/f5dwq/rmbd/content/post\\_1277542.html](https://www.cnbayarea.org.cn/news/topics/f5dwq/rmbd/content/post_1277542.html)> accessed May 20, 2025.)

<sup>41</sup> GD-HK-MC Greater Bay Area Sci-Tech Collaborative Innovation Alliance, ‘The Constitution of GD-HK-MC Greater Bay Area Sci-Tech Collaborative Innovation Alliance’ (《粤港澳大湾区科技协同创新联盟章程》) (16 November 2019) <<https://www.cgbast.org.cn/portal/alliance-constitution.html>> accessed May 20, 2025.

<sup>42</sup> National Development and Reform Commission & Ministry of Commerce, ‘Special Administrative Measures for the Access of Foreign Investment in Pilot Free Trade Zones (Negative List)’ (《自由贸易试验区外商投资准入特别管理措施（负面清单）》) (first enacted 2015, last amended 2021) <[https://www.gov.cn/zhengce/zhengceku/2021-12/28/content\\_5664887.htm](https://www.gov.cn/zhengce/zhengceku/2021-12/28/content_5664887.htm)> accessed May 20, 2025.

<sup>43</sup> Ministry of Commerce, ‘Special Administrative Measures for Cross-Border Trade in Services in Pilot Free Trade Zones (Negative List)’ (《自由贸易试验区跨境服务贸易特别管理措施(负面清单)》)

which clearly specify restricted sectors, provides greater transparency and predictability for investors. Additionally, the implementation of one-stop services for business registration, licensing, and customs procedures reduces bureaucratic obstacles and enhances operational efficiency.

- **Focus on Sustainability and Green Technologies:** In line with global trends towards sustainability, SEZs in the GBA are prioritising investments in green technologies and renewable energy projects. Zhuhai's Hengqin New Area, for example, hosts solar farms operated by LONGi Green Energy and other renewable initiatives, demonstrating the SEZ's commitment to environmental sustainability. This focus not only attracts investors with environmental priorities but also aligns with China's national sustainability objectives.
- **Strategic Location and Global Initiatives:** GBA SEZs are taking advantage of their strategic geographical position to bolster global supply chain integration. By aligning with China's BRI, SEZs such as Guangzhou's Nansha New Area are improving connectivity with markets in Asia, Europe, and Africa. Infrastructure projects like the Hong Kong-Zhuhai-Macau Bridge, Huangmaohai Sea-Crossing Passage, Shenzhen-Zhongshan Link, and TIR (Transports Internationaux Routiers) international highway further enhance this connectivity, facilitating smoother trade and investment flows across multiple continents.<sup>44</sup>
- **Promotion of Advanced Infrastructure and Smart Technologies:** Investment in advanced infrastructure and smart technologies is essential for sustaining competitiveness. Nansha is building a complete AI industrial ecosystem with a high concentration of AI companies, which cover areas such as AI chips, basic software algorithms, biometric identification, natural language processing, and autonomous decision-making & control.<sup>45</sup>
- **Support for Workforce Development and Education:** In order to support high-tech and knowledge-intensive industries, SEZs in the GBA are prioritising workforce development through education and

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(enacted 2024) <[https://www.gov.cn/gongbao/2024/issue\\_11366/202405/content\\_6954195.html](https://www.gov.cn/gongbao/2024/issue_11366/202405/content_6954195.html)> accessed May 20, 2025.

<sup>44</sup> 'ShenZhong Link's opening enhances GBA connectivity and economic growth' *GD Today* (7 April 2024) <[https://www.cnbayarea.org.cn/english/News/content/post\\_1250266.html](https://www.cnbayarea.org.cn/english/News/content/post_1250266.html)> accessed May 20, 2025; 'Huangmaohai Cross-Sea Passage opens on Dec. 11, boosting connectivity of GBA' *GD Today* (12 December 2024)

<[https://www.cnbayarea.org.cn/english/Specials/infographics/content/post\\_1273949.html](https://www.cnbayarea.org.cn/english/Specials/infographics/content/post_1273949.html)> accessed May 20, 2025; 'First international highway entry channel in GBA opens' *GD Today* (1 April 2024) <[https://www.cnbayarea.org.cn/english/News/content/post\\_1183777.html](https://www.cnbayarea.org.cn/english/News/content/post_1183777.html)> accessed May 20, 2025.

<sup>45</sup> Guangzhou Nansha Bureau of Investment Promotion, 'Invest Nansha' (21 April 2024) <<http://www.gzns.gov.cn/attachment/7/7591/7591120/9609084.pdf>> accessed May 20, 2025.

skills training initiatives.<sup>46</sup> Collaborations with leading universities and vocational institutions ensure a consistent supply of skilled professionals capable of driving innovation and sustaining productivity within the SEZs.

- Encouragement of Public-Private Partnerships (PPPs): Public-private partnerships are being actively promoted to improve the planning, management, and provision of infrastructure and services within SEZs. Through the engagement of private sector partners, GBA SEZs can implement more efficient and innovative solutions, thereby enhancing their appeal to investors.<sup>47</sup>

Although the growth of low-cost manufacturing hubs in Southeast Asia presents significant competition for SEZs in the GBA, China is actively addressing these challenges by transforming its SEZs into centres of technological innovation. Through targeted investments in technology, infrastructure, and regulatory reforms, alongside a focus on sustainability, GBA SEZs are not only maintaining their competitiveness but are also setting new standards for economic and technological development. These strategies ensure that the GBA remains a premier destination for global investment, contributing to China's economic future and solidifying its role in the global supply chain.

### 3.2 The Need for Regulatory Reforms to Attract Foreign Investment and Foster Domestic Innovation

Regulatory reforms are essential to enable SEZs to meet the challenges of a more competitive global economy. As China continues its shift towards innovation-led growth, SEZs must offer a regulatory environment that is both flexible and conducive to attracting foreign investment while fostering domestic innovation.

Key areas for reform include:

- SEZs need to streamline bureaucratic procedures, reducing the time and complexity required for foreign businesses to establish operations. Expedited customs clearance, simplified tax regulations, and transparent legal frameworks are critical to creating an attractive business environment.

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<sup>46</sup> For example, CUHK-Shenzhen inaugurates the School of Artificial Intelligence in February 2025 to propel academic advancements in AI and nurture top-tier AI talent in Shenzhen SEZ. 'CUHK-Shenzhen inaugurates School of Artificial Intelligence' *China Daily* (13 February 2025) <<https://www.chinadailyhk.com/hk/article/604504>> accessed 20 February 2025.

<sup>47</sup> Wallace Yu & Bradley Hiller, 'Opinion: How Public-Private Partnerships Could Make China's Greater Bay Area More Efficient' *Caixin Global* (15 February 2019) <[www.caixinglobal.com/2019-02-15/opinion-how-public-private-partnerships-could-make-chinas-greater-bay-area-more-efficient-101380062.html](https://www.caixinglobal.com/2019-02-15/opinion-how-public-private-partnerships-could-make-chinas-greater-bay-area-more-efficient-101380062.html)> accessed May 20, 2025.

- As SEZs pivot towards high-tech industries, the protection of intellectual property (IP) becomes increasingly important. Strengthening IP laws within SEZs will bolster investor confidence, particularly in sectors like biotechnology, AI, and advanced manufacturing, where IP is a critical asset. Harmonising IP protection with international agreements such as the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) will also facilitate global integration.<sup>48</sup>
- SEZs must offer tailored incentives to attract investment in emerging industries. These could include tax breaks for research and development, subsidies for high-tech startups, and preferential land-use policies for companies in green and digital technologies. These incentives would not only attract foreign companies but also support the growth of domestic tech firms, creating a robust innovation ecosystem.
- Moreover, regulatory frameworks must align with international standards to ensure that SEZs in the GBA remain competitive in the global market. This is particularly relevant in the context of China's engagement with multilateral trade agreements such as the RCEP, which opens up new avenues for trade and investment across Asia.

These regulatory priorities are not merely administrative adjustments; they are foundational to repositioning SEZs within the GBA as globally competitive platforms for innovation-driven growth. As foreign investors recalibrate risk in response to geopolitical uncertainty and fast changing international policies, the credibility, clarity, and compatibility of local rules become decisive. In the high-tech and green sectors that now define the SEZ mandate, regulatory quality will determine not only capital inflows but also the sustainability of domestic innovation. Aligning GBA SEZs with international legal norms (while preserving their experimental function within China's economic governance system) is therefore central to securing their role as both investment magnets and institutional bridges between China and the global economy.

### 3.3 Opportunities for SEZs to Lead in Green Transformation and Sustainability

The global shift towards sustainability presents significant opportunities for SEZs in the GBA. China's national goals of achieving peak carbon emissions by 2030 and carbon neutrality by 2060 have placed sustainability at the forefront of its economic strategy. SEZs are well-positioned to lead in this transition by adopting green technologies and

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<sup>48</sup> WTO, 'Overview: the TRIPS Agreement' <[www.wto.org/english/tratop\\_e/trips\\_e/intel2\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/intel2_e.htm)> accessed May 20, 2025.

fostering the development of sustainable industries, which may set a successful example on responding challenges posed by ongoing structural trends.<sup>49</sup>

SEZs in the GBA can leverage Hong Kong's expertise as an international financial centre to develop green finance initiatives.<sup>50</sup> This could include the issuance of green bonds, establishment of carbon trading platforms, and investment in renewable energy projects.<sup>51</sup> SEZs can attract capital for green industries, facilitating the development of sustainable infrastructure and low-carbon technologies.

SEZs must embrace renewable energy sources, such as solar, wind, and hydrogen, to reduce their carbon footprint and enhance energy efficiency. Shenzhen, home to electric vehicle manufacturer BYD, is already a leader in clean energy technologies and electric transportation. Expanding the use of renewable energy across SEZs will align with China's environmental goals and attract investment from global companies committed to sustainability.

SEZs have the opportunity to integrate smart logistics systems that optimise energy use and reduce carbon emissions. Adopting advanced digital technologies such as the IoT and AI, SEZs can create more efficient, low-carbon supply chains. These innovations are crucial as global trade partners, particularly in the EU, increasingly prioritise sustainability and carbon reduction in trade agreements.<sup>52</sup>

SEZs in the GBA also benefit from regional collaboration within the GBA framework. Cross-border cooperation between Guangdong, Hong Kong, and Macau can drive the green transformation, enabling the alignment of

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<sup>49</sup> UNCTAD, 'The Impact of International Tax Reforms on Special Economic Zones' (UNCTAD/DIAE/INF/2023/1) (17 October 2023) 14 <<https://unctad.org/publication/impact-international-tax-reforms-special-economic-zones>> accessed May 20, 2025.

<sup>50</sup> In March 2022, the Securities and Futures Commission (SFC) and the Stock Exchange of Hong Kong Limited (HKEX) began examining potential opportunities to establish a carbon market in Hong Kong. See Securities and Futures Commission, 'Cross-Agency Steering Group Releases Assessment of Carbon Market Opportunities for Hong Kong and Next Steps' *Press Release* (30 March 2022) <<https://apps.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=22PR19>> accessed May 20, 2025.

SEZs within the GBA could capitalize on Hong Kong's expertise and collaborate to further develop the carbon market. See Hong Kong Exchanges and Clearing Limited, 'Research Report: The Growth of Global Carbon Markets and Opportunities for Hong Kong' (January 2023) <[www.hkex.com.hk/-/media/HKEX-Market/News/Research-Reports/HKEX-Research-Papers/2023/CCEO\\_CarbonMkt\\_202301\\_e.pdf](http://www.hkex.com.hk/-/media/HKEX-Market/News/Research-Reports/HKEX-Research-Papers/2023/CCEO_CarbonMkt_202301_e.pdf)> accessed May 20, 2025.

<sup>51</sup> 'Hong Kong Green Bond Market Briefing 2020' *Climate Bonds* (13 May 2021) <[www.climatebonds.net/resources/reports/hong-kong-green-bond-market-briefing-2020](http://www.climatebonds.net/resources/reports/hong-kong-green-bond-market-briefing-2020)> accessed May 20, 2025. Also see: 'Developing Hong Kong as a leading investment fund hub for green and sustainable infrastructure finance' *HKGFA* (4 February 2022) <[www.hkgreenfinance.org/wp-content/uploads/2022/02/HKGFA-Green-Infrastructure-Report .pdf](http://www.hkgreenfinance.org/wp-content/uploads/2022/02/HKGFA-Green-Infrastructure-Report.pdf)> accessed May 20, 2025.

<sup>52</sup> European Commission, 'Sustainable development in EU trade agreements' <[https://policy.trade.ec.europa.eu/development-and-sustainability/sustainable-development/sustainable-development-eu-trade-agreements\\_en](https://policy.trade.ec.europa.eu/development-and-sustainability/sustainable-development/sustainable-development-eu-trade-agreements_en)> accessed May 20, 2025.



environmental regulations, unified green standards, and the sharing of best practices in sustainability.

#### 4. Embedding SEZs into Global Supply Chains: Legal Infrastructure, Technological Leverage, and Regional Integration

The SEZs of the Greater Bay Area are no longer limited to their original role as production hubs; they now function as strategic anchors in China's bid to embed itself more deeply into regional and global supply chains. With China facing renewed external constraints on trade and investment flows, particularly in high-tech sectors, the GBA's logistical and legal infrastructure has taken on heightened importance. SEZs such as Shenzhen, Nansha, and Zhuhai are being recalibrated to support seamless cross-border trade, serve as regulatory laboratories for customs and data governance, and align institutional practices with emerging commitments under the Regional Comprehensive Economic Partnership (RCEP) and the BRI.

This section examines how SEZs are enhancing supply chain connectivity across four interrelated dimensions: the expansion of integrated logistics infrastructure and customs facilitation; the application of emerging technologies to improve transparency and efficiency; the role of SEZs in facilitating regional trade, particularly with Southeast Asia and Europe; and the urgent need to address legal and regulatory inconsistencies that continue to fragment the internal market of the GBA. Together, these developments define the region's capacity to function as a globally competitive trade node in an era of increasing geo-economic friction.

##### 4.1 Enhancing Logistics Infrastructure and Customs Processes

One of the main advantages of the GBA's SEZs lies in their ability to streamline and optimise logistics infrastructure.

SEZs in the GBA are prioritising the integration of ports, airports, roads, and rail systems into a cohesive logistics network.<sup>53</sup> These zones have been at the forefront of adopting smart logistics systems, powered by the IoT and AI. These systems help reduce bottlenecks, streamline operations, and enhance overall efficiency, enabling the GBA to remain competitive in a rapidly evolving global market.

Simplification of customs procedures through automation is a priority. The GBA's SEZs have adopted mechanisms such as automated customs clearance systems, aligning with global best practices and reducing

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<sup>53</sup> 'First international highway entry channel in GBA opens' *GD Today* (1 April 2024) <[https://www.cnbayarea.org.cn/english/News/content/post\\_1183777.html](https://www.cnbayarea.org.cn/english/News/content/post_1183777.html)> accessed May 20, 2025.



bureaucratic delays.<sup>54</sup> Innovations include blockchain-enabled customs and the use of AI for faster inspections and compliance checks.

Additionally, there is an increasing emphasis on harmonising regulations among the Mainland, Hong Kong, and Macau. For example, the Hong Kong-Zhuhai-Macau Bridge (HZMB) facilitates seamless customs cooperation, allowing simultaneous inspections by all three jurisdictions.<sup>55</sup> The Unified Customs Declaration System enables businesses to submit documentation through a single platform recognised by Mainland China, Hong Kong, and Macau, significantly speeding up clearance processes. Furthermore, Shenzhen and Hong Kong have launched a blockchain-based customs platform that ensures transparent and secure tracking of shipments in real-time. These initiatives enhance the flow of goods, reduce trade barriers, and support the RCEP by creating a more integrated and efficient trade environment across the GBA.

These improvements in physical infrastructure and automated procedures are foundational, but increasingly, competitiveness in global trade depends not only on hard infrastructure but also on the integration of digital technologies throughout the supply chain.

#### 4.2 Technology-Driven Supply Chain Innovation

Building on physical upgrades, GBA SEZs are now embedding advanced technologies into their supply chains to achieve real-time visibility, cost-efficiency, and regulatory compliance in a digitised global economy. In response to the demands of global digitalisation, SEZs in the GBA are adopting cutting-edge technologies to enhance supply chain management.

Blockchain technology is increasingly used to create tamper-proof records of transactions, enhancing trust in cross-border trade. In SEZs, blockchain systems help track the origin of goods, verify authenticity, and ensure compliance with international trade standards.<sup>56</sup> AI is deployed for

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<sup>54</sup> Shenzhen City People's Congress (incl. Standing Committee), 'Regulations of Shenzhen Special Economic Zone on Improving Business Environment' (《深圳经济特区优化营商环境条例》) (1 January 2021) <[https://amr.sz.gov.cn/xxgk/qt/ztlm/yhyshj/content/post\\_8585158.html](https://amr.sz.gov.cn/xxgk/qt/ztlm/yhyshj/content/post_8585158.html)> accessed May 20, 2025.

<sup>55</sup> Under the Guangdong-Hong Kong-Macao Three-Places-One-Lock Scheme launched in March 2024, Guangdong, Hong Kong and Macao Customs conducted real-time monitoring on the batch of transshipment cargo using e-locks and GPS technology, enabling the transportation truck to arrive in Macao directly via the HZMB Hong Kong Port and avoiding duplicate inspections by Customs authorities. The Government of Hong Kong SAR, 'Guangdong-Hong Kong-Macao Three-Places-One-Lock Scheme officially launched' (8 March 2024) <<https://www.info.gov.hk/gia/general/202403/08/P2024030800250.htm>> accessed May 20, 2025.

<sup>56</sup> E.g., for Hainan SEZ, see 'Hainan Ecosystem Software Park is Actively Building a Blockchain Pilot Zone' *Securities Times* (8 June 2020) <<http://tradeinservices.mofcom.gov.cn/article/gjszck/xwfb/202011/111588.html>> accessed May 20, 2025; as seen in Jie (Jeanne) Huang, 'Digitalization of Special Economic Zones in China' in Julien Chaisse and Cristián Rodríguez-Chiffelle (eds), *The Elgar Companion to the World Trade Organization* (Edward Elgar Publishing 2023) 186-206.

predictive analytics to optimise supply chain routes, manage inventory, and improve logistics efficiency.<sup>57</sup> These technology applications also enhance the region's ability to serve as a trade conduit beyond China's borders, particularly in light of new commitments under multilateral agreements.

### 4.3 The Role of SEZs in Facilitating Trade with Southeast Asia and Beyond

The geographic and institutional positioning of GBA SEZs allows them to function as regional gateways. Their increasing digital and logistical sophistication positions them to deepen trade ties with ASEAN, the EU, and other RCEP partners. The GBA's SEZs are strategically positioned to strengthen China's trade relationships with Southeast Asia, the EU, and other key global markets.

The GBA's integration into RCEP strengthens its role as a gateway for global trade. By reducing tariffs and harmonising trade regulations, SEZs can attract multinational companies seeking to establish regional headquarters or distribution centres in Southeast Asia. This will enhance the flow of goods, services, and capital between China and its RCEP partners, boosting regional trade and economic integration.

SEZs in the GBA also play a vital role in China's broader BRI. The zones serve as logistics and manufacturing hubs, facilitating trade between China, Central Asia, Africa, and Europe. Leveraging modern logistics systems and enhanced infrastructure, the GBA's SEZs enable companies to take advantage of emerging trade routes and strengthen supply chain connectivity with BRI countries.

However, physical and digital connectivity alone are insufficient without an enabling regulatory environment. Disparities in legal frameworks across the GBA continue to hinder seamless trade and investment flows.

### 4.4 Addressing Challenges: Legal and Regulatory Reforms

A harmonised regulatory foundation is essential for consolidating the gains made in infrastructure and digital trade. Legal fragmentation, particularly between the Mainland, Hong Kong, and Macau, remains a key bottleneck to full integration. While SEZs within the GBA present

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<sup>57</sup> E.g., Shenzhen City People's Congress (incl. Standing Committee), 'Regulation of the Shenzhen Special Economic Zone on the Promotion of Artificial Intelligence Industries' (《深圳经济特区人工智能产业促进条例》) (1 November 2022) <<https://cset.georgetown.edu/publication/regulations-for-the-promotion-of-the-artificial-intelligence-industry-in-shenzhen-special-economic-zone/>> accessed May 20, 2025.

substantial opportunities, several key challenges must be overcome to secure their long-term success.

One significant issue involves **regulatory harmonisation and compliance**. The harmonisation of legal and regulatory frameworks across the GBA's cities is essential for the smooth operation of supply chains. This includes aligning IIP rights, contract law, and labour regulations. A unified legal framework would significantly reduce compliance costs for foreign investors and enable more efficient cross-border trade, thereby improving the overall business environment in the region.

Additionally, **cross-border legal cooperation** between Hong Kong, Macau, and Mainland China remains critical. Mutual recognition of standards and certifications, particularly in high-value sectors like biotechnology, finance, and green technologies, is essential for maintaining the GBA's competitiveness. Furthermore, the adoption of international best practices in dispute resolution and arbitration within SEZs would improve legal certainty, making the region more attractive to foreign investors.

The developments examined in this section underscore a core proposition of this paper: that the continued success of GBA SEZs depends not merely on physical infrastructure or technological innovation, but on their ability to function as legally coherent and institutionally agile platforms for global engagement. Enhanced logistics networks and digital customs systems are necessary, but insufficient on their own. These advancements must be embedded within a harmonised regulatory environment that enables cross-border compliance, facilitates high-tech and green trade under agreements such as RCEP, and supports integrated operations across the GBA's fragmented legal jurisdictions. In this respect, the SEZs are not only logistical hubs; they are testbeds for China's broader legal alignment with global trade and investment norms. Their capacity to host cross-border services, manage secure data flows, and reduce administrative complexity will determine whether the GBA can fulfil its role as a resilient gateway between China's domestic economy and the international market. The transition from hardware-driven competitiveness to rule-based institutional competitiveness is already underway, but it remains incomplete. The next section turns to the legal and regulatory reforms required to operationalise this shift, ensuring that the GBA SEZs can anchor China's economic modernisation under conditions of growing global uncertainty.

## 5. Legal Modernisation and Institutional Convergence: Aligning SEZ Norms with International Investment and Trade Regimes

As SEZs in the GBA evolve, regulatory flexibility will play a defining role in their continued success. Future reforms must address the increasingly

complex global economic environment, balancing China's domestic legal objectives with international regulatory requirements. SEZs must align with legal standards under key international treaties and agreements, including those of the EU, the World Trade Organization (WTO), and the RCEP, while promoting cross-border innovation, FDI, and sustainable development.

### 5.1 Recent Reforms in SEZ Policies

Recent reforms within the GBA's SEZs have aimed to diversify the range of permissible activities, moving beyond traditional manufacturing to foster the growth of services, finance, and high-tech sectors.

The **Foreign Investment Law**, which came into effect on 1 January 2020, consolidated various pre-existing laws into a more streamlined legal framework.<sup>58</sup> This law provides stronger legal protections for foreign investors, explicitly guaranteeing equal treatment of foreign and domestic enterprises, except for those restricted under a negative list.<sup>59</sup> By doing so, it enhances the attractiveness of SEZs as international business hubs, promoting foreign investment across a range of industries. Over the past four years, SEZs such as Shenzhen's Qianhai and Guangzhou's Nansha New Area have witnessed a surge in FDI, particularly in the high-tech, finance, and service sectors. For instance, multinational corporations like Siemens and HSBC have expanded their operations within these zones, benefiting from the enhanced legal protections and streamlined regulatory processes introduced by the law. Additionally, the establishment of joint ventures and innovation hubs has accelerated, fostering collaboration between foreign enterprises and local startups, thereby driving technological advancements and economic diversification. The Foreign Investment Law has also facilitated easier market entry for foreign businesses by ensuring non-discriminatory treatment and protecting IP rights, which has been pivotal in boosting investor confidence.<sup>60</sup> Furthermore, initiatives such as the GBA International Innovation Hub have emerged, providing tailored support and incentives for foreign companies to engage in research and development activities.<sup>61</sup> These reforms have not only strengthened the GBA's reputation as a premier global business hub but also contributed to its strategic alignment with China's broader economic goals, including the BRI. China introduced the

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<sup>58</sup> National People's Congress, 'Foreign Investment Law of the People's Republic of China' (《中华人民共和国外商投资法》) (1 January 2020)

<[https://en.ndrc.gov.cn/policies/202105/t20210527\\_1281403.html](https://en.ndrc.gov.cn/policies/202105/t20210527_1281403.html)> accessed May 20, 2025.

<sup>59</sup> Ibid., Article 4.

<sup>60</sup> Ibid.

<sup>61</sup> Nathan Chau, 'Synergy of GBA cities to have a huge impact on global innovation' *China Daily* (2 June 2023) <<https://www.chinadaily.com.cn/a/202306/02/WS6479ac72a3107584c3ac39ca.html>> accessed 1 January 2025.

*2025 Action Plan for Stabilizing Foreign Investment* in February 2025.<sup>62</sup> This plan proposes 20 measures with the aim to expand opening-up, improve the level of investment promotion, strengthen the functions of opening-up platforms, and redouble efforts to enhance services for foreign investments. Notably, the plan calls for improving the quality and efficiency of FTZs, supporting FTZs in “stepping up stress tests in sectors accessible to foreign investment and continuing to expand institutional opening up in rules, regulation, management and standards”. The plan will facilitate the market access and operation of foreign investments within the GBA SEZs. Overall, the recent policy reforms have effectively transformed the GBA SEZs into more inclusive, resilient, and competitive environments, attracting a diverse array of foreign investments and fostering sustainable economic growth.

In addition, the **Partial De-Notification of Non-Processing Areas** has allowed SEZs to prioritise specific sectors such as green technologies and advanced manufacturing. This flexibility in defining the parameters of SEZs grants targeted regulatory benefits to high-value industries, thereby reducing administrative barriers and enabling these zones to contribute more effectively to global environmental and economic objectives.

Two significant developments were introduced in a judicial interpretation and guidelines issued by the Supreme People’s Court of China (SPC) in February 2025.<sup>63</sup> First, Hong Kong- or Macau-invested enterprises registered in the nine mainland cities within the GBA can choose either a mainland city, Hong Kong, or Macau as the seat of arbitration to resolve commercial disputes. Previously, only enterprises registered in Guangdong FTZs are permitted to do so in such circumstances. Second, Hong Kong- or Macau-invested enterprises registered in Shenzhen or Zhuhai can choose Hong Kong Law or Macau Law as the applicable laws in the contract, even

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<sup>62</sup> See Ministry of Commerce and the National Development and Reform Commission, ‘2025 Action Plan for Stabilizing Foreign Investment’ (17 February 2025) <[https://english.mofcom.gov.cn/Policies/ForeignInvestmentAdministration/art/2025/art\\_cf7fc241d17f42768849fc2837cd3715.html](https://english.mofcom.gov.cn/Policies/ForeignInvestmentAdministration/art/2025/art_cf7fc241d17f42768849fc2837cd3715.html)> accessed 1 March 2025. Also see: Giulia Interesse & Qian Zhou, ‘China’s 2025 Foreign Investment Action Plan: Key Measures and Opportunities’ *China Briefing* (21 February 2025) <<https://www.china-briefing.com/news/chinas-foreign-investment-action-plan-2025-implications/>> accessed May 20, 2025.

<sup>63</sup> See ‘New rules on governing law and arbitration for contracts involving Greater Bay Area enterprises with Hong Kong and Macau investors’, *HSF Arbitration Notes* (26 February 2025) <<https://www.herbertsmithfreehills.com/notes/arbitration/2025-02/new-rules-on-governing-law-and-arbitration-for-contracts-involving-greater-bay-area-enterprises-with-hong-kong-and-macau-investors>> accessed 28 February 2025; Supreme People’s Court, ‘Judicial Interpretation on Hong Kong- or Macau-Invested Enterprises Registered in the Mainland Cities of the GBA to Choose Hong Kong Law or Macau Law as Applicable Laws in Contract, or to Choose Hong Kong or Macau as the Seat of Arbitration’ (《最高法关于粤港澳大湾区内地设立的港澳投资企业协议选择港澳法律为合同适用法律或者协议约定港澳为仲裁地效力问题的批复》) (14 February 2025) <<https://www.chinacourt.org/article/detail/2025/02/id/8706252.shtml>> accessed 28 February 2025; Supreme People’s Court and Ministry of Justice, ‘Guideline on Fully Leveraging the Function of Arbitration to Serve the High-Quality Development of the Guangdong-Hong Kong-Macao Greater Bay Area’ (《关于充分发挥仲裁职能作用 服务粤港澳大湾区高质量发展的意见》) (14 February 2025) <[https://www.moj.gov.cn/pub/sfbgw/zwxgk/fdzdgknr/fdzdgknrtzjw/202502/t20250213\\_514221.html](https://www.moj.gov.cn/pub/sfbgw/zwxgk/fdzdgknr/fdzdgknrtzjw/202502/t20250213_514221.html)> accessed 28 February 2025.

the contract does not contain any foreign-related element. Previously, only enterprises in Shenzhen Qian are permitted to do so in such circumstances. In addition, the guidelines issued by the SPC introduces measures to promote the GBA as an integrated international arbitration hub, including: establishing a GBA international commercial arbitration centre, establishing unified arbitration rules and an online dispute resolution platform across the GBA, enhancing judicial support for arbitration in the GBA, etc. Such development will facilitate the internationalisation of the GBA SEZs' business environment, and benefit the collaborative development of the legal and dispute resolution sectors.

## 5.2 The Need for Further Legal and Regulatory Reforms

Although recent reforms have reinforced the GBA SEZs as centres of innovation, additional legal improvements are necessary to accommodate the evolving demands of international markets and regulatory frameworks.

Table 3: Steps for Regulatory Harmonisation Across GBA Jurisdictions

<i>Step</i>	<i>Action</i>	<i>Purpose/Description</i>
1	<b>Identify Regulatory Differences</b>	Analyse existing legal frameworks to understand discrepancies and their impact on cross-border operations.
2	<b>Establish Joint Regulatory Committees<sup>64</sup></b>	Form committees with representatives from each jurisdiction to oversee harmonisation efforts.
3	<b>Develop Mutual Recognition Agreements (MRAs)</b>	Create agreements allowing recognition of each other's regulations and certifications.
4	<b>Implement Regulatory Sandboxes in SEZs</b>	Establish controlled environments to test harmonised regulations and encourage innovation.
5	<b>Pilot Unified Regulations within Selected SEZs</b>	Roll out harmonised regulations in specific SEZs to test effectiveness and address challenges.
6	<b>Monitor and Evaluate Implementation</b>	Collect feedback and assess the impact of harmonised regulations on businesses and investment.
7	<b>Adjust and Refine Regulations</b>	Make necessary adjustments based on evaluations to improve alignment and effectiveness.
8	<b>Extend Harmonised Regulations Across the GBA</b>	Expand the harmonised regulatory frameworks to all SEZs and eventually the entire GBA region.
9	<b>Maintain Ongoing Regulatory Alignment</b>	Establish mechanisms for regular reviews and updates to keep regulations current and effective.

Source: Elaborated by the author from public sources

Harmonising legal frameworks across the jurisdictions of Mainland China, Hong Kong, and Macau remains a significant challenge, especially given

<sup>64</sup> Chao Xi, 'Legal and Regulatory Harmonization in the Greater Bay Area' (2024) 24 China Review 1; Wilson Yu Wen, 'China's Greater Bay Area Initiative', *CCBC Policy Reports* (6 January 2020) <<https://ccbc.com/ccbc-policy-reports/chinas-greater-bay-area-initiative/>> accessed 1 January 2025.



the “One Country, Two Systems” arrangement.<sup>65</sup> This legal complexity is particularly evident in areas such as cross-border trade, customs, and taxation, where businesses encounter varied legal and regulatory requirements depending on their location within the GBA. Greater efforts are needed to harmonise critical regulatory frameworks affecting businesses operating across these regions. Expanding judicial cooperation mechanisms,<sup>66</sup> like the “Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters” between Mainland China and Hong Kong,<sup>67</sup> could ease cross-border dispute resolution and improve the enforcement of judgments. Extending such cooperation to include cross-border taxation, customs procedures, and corporate law would simplify operations for enterprises and attract increased foreign investment, especially from jurisdictions with well-developed legal infrastructure, such as the EU.

In the digital age, regulatory frameworks related to data protection and cybersecurity are essential for attracting international investment. This is particularly the case for investments from regions like the EU, which operates under the stringent General Data Protection Regulation (GDPR) (2016).<sup>68</sup> Mainland China’s Cybersecurity Law (2017),<sup>69</sup> Data Security Law (2021),<sup>70</sup> Personal Information Protection Law (PIPL) (2021),<sup>71</sup> and Regulation on Network Data Security Management (2025)<sup>72</sup> provide a comprehensive regulatory framework for data governance. Also, the Memorandum of Understanding (MoU) on Facilitating Cross-border Data Flow within the GBA, along with the voluntary GBA standard contracts between the Mainland and Hong Kong and between the Mainland and

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<sup>65</sup> Ministry of Foreign Affairs of The People’s Republic of China, ‘One Country, Two Systems is the Most Ingenious Vision’ (26 August 2022) <[www.fmprc.gov.cn/eng/zy/jj/zggcdddwjw100ggs/gg/202406/t20240606\\_11377967.html](http://www.fmprc.gov.cn/eng/zy/jj/zggcdddwjw100ggs/gg/202406/t20240606_11377967.html)> accessed 1 January 2025.

<sup>66</sup> Hong Kong Department of Justice, ‘Mutual Legal Assistance’ <[https://www.doj.gov.hk/en/mainland\\_and\\_macao/arrangements\\_with\\_the\\_mainland.html](https://www.doj.gov.hk/en/mainland_and_macao/arrangements_with_the_mainland.html)> accessed May 20, 2025.

<sup>67</sup> Supreme People’s Court and Hong Kong SAR Government, ‘The Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland and of the Hong Kong Special Administrative Region’ (《关于内地与香港特别行政区法院相互认可和执行民商事案件判决的安排》) (signed 18 January 2019, effective 29 January 2024) <[https://www.doj.gov.hk/en/mainland\\_and\\_macao/pdf/Doc3\\_477379e.pdf](https://www.doj.gov.hk/en/mainland_and_macao/pdf/Doc3_477379e.pdf)> accessed May 20, 2025.

<sup>68</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC [2016] OJ L 119/1.

<sup>69</sup> Standing Committee of the National People’s Congress, ‘Cybersecurity Law of the People’s Republic of China’ (《中华人民共和国网络安全法》) (1 June 2017) <[https://www.gov.cn/xinwen/2016-11/07/content\\_5129723.htm](https://www.gov.cn/xinwen/2016-11/07/content_5129723.htm)> accessed May 20, 2025.

<sup>70</sup> Standing Committee of the National People’s Congress, ‘Data Security Law of the People’s Republic of China’ (《中华人民共和国数据安全法》) (1 September 2021) <[https://www.gov.cn/xinwen/2021-06/11/content\\_5616919.htm](https://www.gov.cn/xinwen/2021-06/11/content_5616919.htm)> accessed May 20, 2025.

<sup>71</sup> Standing Committee of the National People’s Congress, ‘Personal Information Protection Law of the People’s Republic of China’ (《中华人民共和国个人信息保护法》) (1 November 2021) <[https://www.gov.cn/xinwen/2021-08/20/content\\_5632486.htm](https://www.gov.cn/xinwen/2021-08/20/content_5632486.htm)> accessed May 20, 2025.

<sup>72</sup> State Council, ‘Regulation on Network Data Security Management’ (《网络数据安全条例》) (1 January 2025) <[https://www.gov.cn/zhengce/content/202409/content\\_6977766.htm](https://www.gov.cn/zhengce/content/202409/content_6977766.htm)> accessed May 20, 2025.

Macau, ease the PIPL restrictions and simplifies compliance. However, such efforts are not enough to reduce the legal and regulatory disparities between the Mainland and two SARs.<sup>73</sup> However, SEZs within the GBA must ensure the effective implementation of these laws while also aligning them with the data protection standards of Hong Kong and Macau.<sup>74</sup> For example, SEZs like Qianhai, which serve as financial services hubs, should enhance their regulations concerning cross-border data flows to ensure compliance with EU standards.<sup>75</sup> Failure to achieve a level of data protection equivalent to GDPR standards could limit the involvement of European businesses and financial institutions. Additionally, SEZs should

<sup>73</sup> See Adam Au & Normann Witzleb, 'Data Flows and Data Protection in the Greater Bay Area: The Need for a Coordinated Legal Framework' (2024) 12 Chinese Journal of Comparative Law 1, 16-18. In addition, on 24 June 2024, the General Affairs Office of the Guangdong Provincial Committees of the Communist Party of China and the General Affairs Office of the Government of Guangdong Province issued the "Implementation Opinions on Building a Data Base System and Promoting the High-Quality Development of the Data Factor Market". The Opinions propose to build a mechanism for safe and compliant cross-border circulation of data, and to promote data synergy and exchanges within the GBA by establishing a convenient system for data export security assessment, building a dispute resolution mechanism for cross-border data disputes within the GBA, promoting the construction of the Guangzhou Nansha Node as the "International Data Transmission Hub" in the GBA, and so on. Such measures can help foster greater alignment between the distinct data protection regimes in three jurisdictions. See General Affairs Office of the Guangdong Provincial Committees of the Communist Party of China and the General Affairs Office of the Government of Guangdong Province, 'Implementation Opinions on Building a Data Base System and Promoting the High-Quality Development of the Data Factor Market' (《关于构建数据基础制度推进数据要素市场高质量发展的实施意见》) (24 June 2024)

<[http://www.gd.gov.cn/gdywdt/gdyw/content/post\\_4443944.html](http://www.gd.gov.cn/gdywdt/gdyw/content/post_4443944.html)> accessed May 20, 2025.

<sup>74</sup> The Innovation, Technology and Industry Bureau (ITIB) of Hong Kong SAR and the Cyberspace Administration of China (CAC) signed the "Memorandum of Understanding on Facilitating Cross-border Data Flow within the Guangdong-Hong Kong-Macao Greater Bay Area" on 29 June 2023 to promote cross-border data flow within the GBA. Under the Memorandum, the ITIB and CAC jointly released the "Standard Contract for Cross-Border Flow of Personal Information within the Guangdong-Hong Kong-Macao Greater Bay Area (Mainland, Hong Kong)" and the implementation guidelines on the standard contract on 10 December 2023. The Guidelines introduce a set of requirements, easing certain provisions under the Personal Information Protection Law of the People's Republic of China (PIPL) to facilitate cross-border data transfers within the GBA. See Hong Kong Digital Policy Office, 'Facilitating Cross-boundary Data Flow within the Greater Bay Area' <[https://www.digitalpolicy.gov.hk/en/our\\_work/digital\\_infrastructure/mainland/cross-boundary\\_data\\_flow/#:~:text=Under%20the%20%E2%80%9CMemorandum%20of%20Understanding,GBA%20Standard%20Contract%20facilitation%20measure](https://www.digitalpolicy.gov.hk/en/our_work/digital_infrastructure/mainland/cross-boundary_data_flow/#:~:text=Under%20the%20%E2%80%9CMemorandum%20of%20Understanding,GBA%20Standard%20Contract%20facilitation%20measure)> accessed May 20, 2025.

Likewise, the CAC and the Financial Affairs Bureau of Macau SAR signed the "Memorandum of Understanding on Facilitating Cross-border Data Flow within the Guangdong-Hong Kong-Macao Greater Bay Area" on 9 September 2024, and jointly released the "Standard Contract for Cross-Border Flow of Personal Information within the Guangdong-Hong Kong-Macao Greater Bay Area (Mainland, Macau)" and the implementation guidelines on the standard contract on 10 September 2024. See 'China: CAC and Macao sign a memorandum of cooperation on cross-border data flow' *Data Guidance* (9 September 2024) <<https://www.dataguidance.com/news/china-cac-and-macao-sign-memorandum-cooperation-cross>> accessed May 20, 2025.

<sup>75</sup> SEZs like Qianhai, serving as pivotal financial services hubs, face the complex task of navigating diverse international data protection and cybersecurity standards. Continuously enhancing regulations to comply with every country-specific standard is both challenging and resource-intensive. Instead, a strategic approach involves aligning with widely recognised and stringent frameworks, such as the EU's GDPR, which often serve as benchmarks for other jurisdictions. By adopting these robust standards, SEZs can ensure a high level of data protection and cybersecurity that meets the requirements of multiple countries simultaneously, thereby attracting a broader range of international investors. Additionally, implementing flexible, scalable regulatory mechanisms allows SEZs to adapt to evolving global standards without the need for constant, fragmented adjustments. Collaborating with international regulatory bodies and leveraging unified compliance platforms can further streamline adherence to various standards.



explore balanced data localisation policies that address domestic security concerns while accommodating international business needs.<sup>76</sup> Establishing transparent guidelines for cross-border data transfers and ensuring uniform enforcement across the GBA will be essential for attracting high-tech industries that depend on secure data flows.

Despite recent advancements in the liberalisation of financial services within the GBA, regulatory obstacles still hinder the full integration of cross-border financial markets. SEZs like Qianhai and Hengqin, which are integral to the GBA's financial connectivity strategy, have benefited from reforms allowing for greater cross-border capital flows. However, further liberalisation is required. The promotion of E-CNY (digital RMB) is conducive to RMB internationalisation. For example, Guangzhou issued the "Action Plan for Further Promoting the Digital Renminbi Work in Guangzhou Municipality" in January 2025, promoting the participation of digital RMB operating institutions and relevant enterprises in the pilot test of the Multi-CBDC Bridge in the Guangzhou regions through integration of bank construction work in the Greater Bay Area.<sup>77</sup> A key area for reform involves the expansion of Renminbi (RMB) internationalisation within SEZs.<sup>78</sup> Presently, cross-border RMB transactions are constrained by China's capital control regime, limiting the ability of foreign investors to freely participate in currency

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<sup>76</sup> On March 22, 2024, the Cyberspace Administration of China issued the Provisions for the Promotion and Standardization of Cross-Border Data, in which FTZs are entitled to develop their own cross-border data transfer rules. See Cyberspace Administration of China, 'Provisions for the Promotion and Standardization of Cross-Border Data' (《促进和规范数据跨境流动规定》) (22 March 2024) <[https://www.cac.gov.cn/2024-03/22/c\\_1712776611775634.htm](https://www.cac.gov.cn/2024-03/22/c_1712776611775634.htm)> accessed May 20, 2025. Since then, several FTZs of China, including Tianjin FTZ, Beijing FTZ, Shanghai FTZ, and Hainan FTZ, have released the negative list for data export, highlighting important data and personal information for which a company must undergo a security assessment, sign a standard contract, or undergo third-party data protection certification. Data not included in the negative list can be freely exported by companies registered in the FTZ, which eases cross-border data transfers. See Tiantian Ke, Alex Roberts, and Ruoyi Lu, 'China: Will free trade zones' negative- and whitelists ease data exports?' (26 February 2025) <<https://www.linklaters.com/en-us/insights/blogs/digilinks/2025/february/china-will-free-trade-zones-negative--and-whitelists-ease-data-exports#:~:text=A%20negative%20list%20means%20a,to%20obtain%20data%20protection%20certification>> accessed May 20, 2025; Arendse Huld, 'Shanghai Streamlines Data Export with New Data Negative List' *China Briefing* (4 March 2025) <<https://www.china-briefing.com/news/shanghai-data-negative-list-export/>> accessed 10 March 2025.

<sup>77</sup> See 'Notice of Issuing the Action Plan for Further Promoting the Digital Renminbi Work in Guangzhou Municipality' (3 January 2025) <<https://www.bayarea.gov.hk/en/resource/mainland-policies-measures-20250103c.html>> accessed May 20, 2025.

<sup>78</sup> By promoting the use of RMB within SEZs like Qianhai and Hengqin, these zones can facilitate easier cross-border capital flows, reduce reliance on the US dollar, and attract foreign investors seeking to diversify their currency exposure. Currently, China's capital control regime imposes restrictions on RMB transactions, limiting the ability of foreign investors to freely engage in currency exchanges and investment activities. Expanding RMB internationalisation would involve several strategic reforms, such as easing capital controls, enhancing RMB liquidity, and establishing offshore RMB clearing banks within SEZs. For example, the Qianhai SEZ has already initiated measures to support RMB-denominated financial products and services, enabling smoother transactions for multinational corporations and financial institutions operating within the zone. Additionally, Hengqin can develop specialised RMB-focused financial hubs that offer competitive exchange rates and streamlined regulatory processes, making it more attractive for foreign businesses to conduct transactions in RMB.

exchanges.<sup>79</sup> Liberalising RMB operations in SEZs would support global efforts to increase the RMB's international usage, thereby facilitating greater foreign investment. This initiative would also align with China's broader BRI, enhancing SEZs as financial gateways. Additionally, the RCEP offers a legal framework for deepening financial integration, particularly in services and investment. SEZs within the GBA should adopt and implement the service trade liberalisation commitments under the RCEP to attract further investment in financial services, fintech, and green finance from regional and global markets.

### 5.3 Recommendations for Reducing Administrative Barriers

Administrative inefficiencies present a considerable hindrance to the competitiveness of SEZs, particularly in sectors that demand rapid market entry and flexibility.

The introduction of digital investment platforms capable of managing all aspects of business operations, from corporate registration to customs clearance, would significantly alleviate administrative burdens. This is especially relevant for attracting firms engaged in e-commerce, fintech, and advanced manufacturing. A model similar to the EU's Single Digital Gateway Regulation,<sup>80</sup> which simplifies administrative processes across EU member states, could be adapted for SEZs within the GBA.

Sectors such as AI and biotechnology continue to face complex regulatory requirements across different jurisdictions within the GBA.<sup>81</sup> Simplifying these procedures by offering cross-border licences, recognised across all GBA territories, would enable businesses to expand without encountering redundant legal complexities.

Improving IP protections through regulatory reforms is essential for positioning SEZs as innovation-friendly environments. The Regulations of Shenzhen Special Economic Zone on Protection of Intellectual Property Rights is regarded as China's first comprehensive local legislation for IP protection. By enhancing the mechanisms for IP protection and strengthening administrative enforcement, it significantly improves legal safeguards in Shenzhen's intellectual property sector, thereby supporting innovation and development.

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<sup>79</sup> State Council, 'China unveils measures to expand cross-border RMB use' *Xinhuanet* (12 January 2023), [https://english.www.gov.cn/statecouncil/ministries/202301/12/content\\_WS63bf65c7c6d0a757729e55df.html](https://english.www.gov.cn/statecouncil/ministries/202301/12/content_WS63bf65c7c6d0a757729e55df.html) accessed May 20, 2025.

<sup>80</sup> Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) No 1024/2012 [2018] OJ L295/1.

<sup>81</sup> For instance, "EU Cybersecurity Certification Scheme on Common Criteria (EUCC)" is rolled out to unify the cybersecurity standard and certification requirements across EU. It simplifies the regulatory requirement for technology provider.

The Regulations introduce a compliance commitment system for IP, encouraging businesses and individuals to incorporate compliance clauses in IP contracts, which increases legal accountability for all parties involved.<sup>82</sup> Additionally, the Regulations refrain from imposing provisions on civil damages and the determination of infringement, reflecting the adaptability and flexibility of local legislation while focusing on practical implementation and effective supervision.<sup>83</sup>

Currently, inconsistencies in IP enforcement between Mainland China, Hong Kong, and Macau may deter international investors. Harmonising IP regulations under frameworks like the Patent Cooperation Treaty (PCT) and establishing expedited IP protection mechanisms within SEZs would foster a more attractive environment for investment. Moreover, creating unified IP courts or arbitration centres in the GBA can enhance legal certainty for investors. For now, Nansha, Qianhai, and Hengqin courts signed the “Framework Agreement on the Construction of Judicial Collaboration Mechanisms for the Protection of Intellectual Property Rights” on 26 April 2023.<sup>84</sup> The agreement aimed for enhancing judicial collaboration on IP protection through trial resource coordination, multi-disciplinary dispute resolution coordination, data research coordination, business training coordination, information communication, and demonstration construction.

#### 5.4 Sector-Specific Regulatory Reforms

Each emerging sector within the GBA’s SEZs has distinct regulatory needs. In December 2023, a set of comprehensive guidelines titled *Introducing Special Measures to Support the Guangdong-Macau In-Depth Cooperation Zone in Hengqin in Broadening Market Access* was implemented to ease market access, eliminate barriers and facilitate fair competition in key areas such as modern finance, culture, tourism, sci-tech, medical and health.<sup>85</sup> Implementing reforms tailored to the specific requirements of these industries will enhance the global competitiveness of SEZs.

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<sup>82</sup> Shenzhen City People’s Congress (incl. Standing Committee), ‘Regulations of Shenzhen Special Economic Zone on Protection of Intellectual Property Rights’ (《深圳经济特区知识产权保护条例》) (first adopted 2018, last revised and effective 3 July 2020), Article 53, <[https://www.pkulaw.com/en\\_law/c7432f44b9e35269d732fb6f51f95f0cbdfb.html](https://www.pkulaw.com/en_law/c7432f44b9e35269d732fb6f51f95f0cbdfb.html)> accessed May 20, 2025.

<sup>83</sup> Ibid., Chapter 4.

<sup>84</sup> See ‘Hengqin Court, Qianhai Court, and Nansha Court Signed an Agreement to Create an Integrated Platform for Judicial Protection of Intellectual Property Rights within the Greater Bay Area’ (《横琴前海南沙法院签署协议，打造大湾区知识产权司法保护一体化平台》) *Nanfang News* (26 April 2023) <[https://www.cnbayarea.org.cn/news/special/cooperationzone/jjhq/zxdt/content/post\\_1052791.html](https://www.cnbayarea.org.cn/news/special/cooperationzone/jjhq/zxdt/content/post_1052791.html)> accessed May 20, 2025.

<sup>85</sup> National Development and Reform Commission & Ministry of Commerce, ‘Introducing Special Measures to Support the Guangdong-Macau In-Depth Cooperation Zone in Hengqin in Broadening Market Access’ (《关于支持横琴粤澳深度合作区放宽市场准入特别措施的意见》) (26 December 2023) <[https://www.ndrc.gov.cn/xxgk/zcfb/tz/202312/t20231226\\_1362933.html](https://www.ndrc.gov.cn/xxgk/zcfb/tz/202312/t20231226_1362933.html)> accessed May 20, 2025.

Table 4: Sector-Specific Regulatory Challenges and Proposed Reforms in GBA SEZs

SECTOR	REGULATORY CHALLENGES	PROPOSED REFORMS
<b>BIOTECHNOLOGY</b>	<ul style="list-style-type: none"> <li>- Lengthy and complex approval processes for clinical trials</li> <li>- Lack of mutual recognition of clinical data across GBA jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>- Implement accelerated approval processes inspired by the EU's Clinical Trials Regulation (CTR)</li> <li>- Establish mutual recognition agreements for clinical trial data between Mainland China, Hong Kong, and Macau</li> </ul>
<b>AI</b>	<ul style="list-style-type: none"> <li>- The MoU on Facilitating Cross-border Data Flow within the GBA and the GBA Standard Contract (see above) address key barriers to cross-border personal data transfers in the GBA by harmonizing requirements and easing certain PIPL provisions. However, gaps remain in aligning with international standards like GDPR, governing non-personal data critical for AI, and supporting regulatory sandboxes for innovation. The Guidelines also lack AI-specific governance measures for ethical oversight and high-risk applications. Broader regulatory alignment and targeted frameworks for AI data needs are necessary to fully support AI deployment in the GBA.</li> <li>- Inconsistent data protection and cybersecurity laws across jurisdictions</li> <li>- Restrictions on cross-border data flows affecting AI development and deployment</li> </ul>	<ul style="list-style-type: none"> <li>- Harmonise data protection regulations to align with international standards like GDPR<sup>86</sup></li> <li>- Establish clear guidelines for cross-border data transfers within the GBA</li> <li>- Create regulatory sandboxes for AI innovation</li> </ul>
<b>FINANCIAL TECHNOLOGY (FINTECH)</b>	<ul style="list-style-type: none"> <li>- Limited cross-border capital flow due to stringent capital controls</li> <li>- Varying financial regulations hindering integration of financial services</li> </ul>	<ul style="list-style-type: none"> <li>- Liberalise RMB operations within SEZs to facilitate cross-border transactions</li> </ul>

<sup>86</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1.

		<ul style="list-style-type: none"> <li>- Adopt RCEP service trade liberalisation commitments</li> <li>- Harmonise financial regulations and compliance requirements across GBA jurisdictions</li> </ul>
<b>GREEN TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>- Insufficient incentives for renewable energy projects</li> <li>- Lack of carbon trading mechanisms and green finance regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Develop carbon trading markets within SEZs</li> <li>- Implement green finance regulations and incentives for sustainable projects</li> <li>- Align regulatory initiatives with international agreements like the Paris Agreement and the EU's European Green Deal</li> </ul>
<b>E-COMMERCE AND ADVANCED MANUFACTURING</b>	<ul style="list-style-type: none"> <li>- Administrative burdens due to complex registration and customs procedures</li> <li>- Redundant legal complexities across different GBA jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>- Introduce digital investment platforms for streamlined administrative processes</li> <li>- Offer cross-border licences recognised across all GBA territories</li> <li>- Simplify customs procedures using technology-driven solutions</li> </ul>
<b>IP RIGHTS</b>	<ul style="list-style-type: none"> <li>- Inconsistencies in IP enforcement between Mainland China, Hong Kong, and Macau</li> <li>- Deterrence of international investors due to weak IP protections</li> </ul>	<ul style="list-style-type: none"> <li>- Harmonise IP regulations under international frameworks like the PCT<sup>87</sup></li> <li>- Establish unified IP courts or arbitration centres in the GBA</li> <li>- Implement expedited IP protection mechanisms within SEZs</li> </ul>

<sup>87</sup> World Intellectual Property Organization, 'Patent Cooperation Treaty (PCT)' (19 June 1970) <[www.wipo.int/treaties/en/registration/pct/](http://www.wipo.int/treaties/en/registration/pct/)> accessed May 20, 2025.

Source: Elaborated by the author

The biotechnology sector, particularly prominent in regions like Shenzhen, demands accelerated approval processes for clinical trials and regulatory incentives to encourage R&D. Drawing upon the EU's Clinical Trials Regulation (CTR)<sup>88</sup> as a model, GBA SEZs could introduce regulatory frameworks that enable the rapid approval of biopharmaceutical innovations while maintaining adherence to global safety standards. Additionally, the establishment of mutual recognition agreements for clinical trial data between GBA jurisdictions would further streamline development.

Given China's commitment to achieving carbon neutrality by 2060, SEZs must take a leading role in establishing regulatory frameworks that support the growth of green technologies. Developing carbon trading markets, implementing green finance regulations, and providing incentives for renewable energy projects within SEZs will position these zones as key players in the global green transition. These regulatory initiatives should align with international agreements, such as the EU's European Green Deal and the Paris Agreement, ensuring that SEZs remain competitive while meeting global climate targets.

## 6. Conclusion

This policy paper has examined the historical evolution of SEZs such as Shenzhen, Zhuhai, and Guangzhou's Nansha New Area, focusing on their contributions to technological innovation, supply chain connectivity, sustainability efforts, and regulatory reforms. Despite the challenges they face—such as escalating costs, regulatory hurdles, and growing international competition—SEZs hold significant potential to lead in sustainable development and advanced technological sectors.

To build upon this analysis, exploring new strategies to enhance the GBA SEZs' role in China's economic future is essential. Strengthening the GBA's position as a global innovation hub requires the development of a unified digital ecosystem across the SEZs. This may involve integrating digital currency by implementing the Digital Renminbi (e-CNY) to facilitate cross-border transactions and reduce currency exchange barriers, thus improving trade efficiency and attracting international businesses seeking streamlined financial operations.<sup>89</sup> Additionally, the application of blockchain technology to administrative processes (such as business

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<sup>88</sup> Regulation (EU) No 536/2014 of the European Parliament and of the Council of 16 April 2014 on clinical trials on medicinal products for human use, and repealing Directive 2001/20/EC Text with EEA relevance [2014] OJ L 158/1.

<sup>89</sup> 'E-CNY: main objectives, guiding principles and inclusion considerations', *Bank of International Settlements* (21 April 2022) <[https://www.bis.org/publ/bppdf/bispap123\\_e.pdf](https://www.bis.org/publ/bppdf/bispap123_e.pdf)> accessed May 20, 2025.

registration, licensing, and compliance monitoring) could reduce bureaucratic inefficiencies and build trust among foreign investors.

Human capital is indispensable for sustained innovation. The GBA SEZs must prioritise strategies for attracting and retaining talent by establishing international talent zones, which could include simplified visa procedures, competitive compensation, and access to leading research facilities. Moreover, fostering educational collaborations with top international universities and research institutions to establish campuses and R&D centres within the SEZs can promote a culture of innovation and facilitate knowledge transfer.

To maintain a competitive edge in technological advancement, SEZs should establish regulatory sandboxes for emerging technologies. These controlled environments enable companies to experiment with innovations—particularly in sectors such as fintech, biotechnology, and artificial intelligence—without facing immediate regulatory restrictions. Developing adaptive regulatory frameworks that can adjust to rapid technological developments is critical to ensuring that regulations remain conducive to innovation while safeguarding public interests.

SEZs are positioned to contribute significantly to China’s “dual circulation” strategy, which seeks to strengthen the domestic economy while maintaining international trade.<sup>90</sup> Encouraging SEZs to focus on the domestic market will allow for the development of products and services tailored to China’s needs, reducing export dependence and enhancing economic resilience. At the same time, SEZs must continue facilitating international trade and investment, functioning as bridges between the domestic economy and global markets.

In an era of rising geopolitical tensions, SEZs must adopt strategies to mitigate risks by diversifying trade partnerships. Expanding trade relationships to include emerging markets in regions such as Africa, Latin America, and South Asia can reduce overdependence on traditional trading partners. Furthermore, compliance with international standards in areas such as data security, environmental protection, and corporate governance will help avoid trade disputes and strengthen global credibility. Sustained economic growth should be inclusive and socially responsible. Promoting social development and inclusivity can be achieved by implementing programmes that support local communities, such as vocational training, affordable housing, and access to healthcare services, ensuring that the benefits of economic growth are widely distributed. Sustainable urban planning within SEZs should incorporate green spaces, efficient public transportation, and environmentally sustainable

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<sup>90</sup> National Development and Reform Commission, ‘Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and Vision 2035 of the People’s Republic of China’ (《中华人民共和国国民经济和社会发展第十四个五年规划和 2035 年远景》) (13 March 2021) <[https://www.pkulaw.com/en\\_law/dad03bd96074290cbdfb.html](https://www.pkulaw.com/en_law/dad03bd96074290cbdfb.html)> accessed May 20, 2025.

architecture to improve living conditions and attract highly skilled professionals.

To improve global integration, SEZs should deepen collaboration with international institutions. Active participation in global forums, such as the World Economic Forum, World Trade Organization, and International Monetary Fund, will help SEZs stay informed of global economic trends and policy changes. Furthermore, adopting successful practices from other SEZs (such as those in Singapore and Dubai) can improve governance, technology implementation, and investor relations.

Innovation in SEZs can be fostered through IP alliances, which are vital for attracting high-tech industries. Strengthening IP protection through international agreements reduces the risk of infringement and encourages collaborative research. Developing IP monetisation platforms within SEZs, where IP can be licenced or sold, will foster innovation and create revenue streams for creators.

SEZs should harness artificial intelligence and big data to drive efficiency and innovation. AI-driven solutions for urban management (including traffic control, energy use, and public safety) can enhance both operational efficiency and quality of life. Additionally, data analytics can support evidence-based policymaking, enabling the use of big data to inform decisions, monitor economic performance, and identify emerging trends, thereby facilitating proactive governance.

Encouraging sustainable finance is critical to supporting green transformation efforts. Establishing green investment funds dedicated to sustainable projects within SEZs will attract investors focused on environmental, social, and governance principles. Moreover, conducting environmental risk assessments for major projects will ensure alignment with sustainability goals.

An essential foundation for these strategies is the establishment of comprehensive legal and regulatory frameworks that support innovation while ensuring compliance across the GBA. This includes legal reforms to facilitate digital currency integration and blockchain governance, such as amendments to financial regulations addressing e-CNY, anti-money laundering measures, and fintech innovations within regulatory sandboxes. Strengthening IP protection through enhanced enforcement and international IP agreements is crucial for attracting high-tech industries and encouraging research collaboration. Legal harmonisation across Hong Kong, Macau, and Mainland China is essential to simplify cross-border transactions and dispute resolution. Compliance with data security and privacy laws (such as China's Cybersecurity Law, Data Security Law, and Personal Information Protection Law) will be necessary when using AI and big data, requiring robust legal frameworks for data protection and blockchain use. Furthermore, strict environmental law



enforcement, alongside incentives for sustainable practices, will align SEZ development with environmental targets. Adjustments to labour laws to facilitate international talent zones, including simplified visa procedures and worker protections, will be necessary to attract global talent. Adherence to international trade laws and agreements, including World Trade Organization compliance, will strengthen global credibility and reduce legal risks. Proactively addressing these legal considerations will enable the GBA SEZs to foster an environment conducive to innovation, investment, and sustainable growth, positioning them as global economic leaders.

The future success of SEZs within the GBA depends on their ability to innovate and adapt in a rapidly changing global context. Through the adoption of these strategies, ranging from digital integration to promoting social inclusivity, SEZs can overcome existing challenges and seize emerging opportunities. These initiatives will not only bolster China's economic growth but also contribute to technological advancement, sustainable development, and global cooperation. The GBA SEZs are poised to enter a new era, where strategic foresight and bold reforms will elevate them to new levels of prosperity and global influence.

Annex A: Working Note Background Research GBA  
Annex B: Book Chapter Qian GBA OUP2025  
Annex C: Draft Article SEZ GBA Unilateral Law