







前言 Foreword



陈凯 Jack Chan

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粤港澳大湾区建设是中国国家主席习近平亲自谋划、亲自部署、亲自推动的国家战略。特别是2019年《粤港澳大湾区发展规划纲要》公布以来,大湾区建设开启崭新篇章。在深圳前海、珠海横琴、广州南沙、深港河套等重大合作平台的推动下,粤港澳三地以改革和创新为驱动力,融合发展不断向纵深推进,在基础设施"硬连接"、规则对接"软联通"、文化融合"心相通"方面取得了一系列令人瞩目的成果。

习主席2023年4月在广东考察时,更明确指出要"使粤港澳大湾区成为新发展格局的战略支点、高质量发展的示范地、中国式现代化的引领地",体现了在产业体系、科技创新、对外开放和区域发展等方面,国家对粤港澳大湾区的战略定位,也对大湾区未来的发展提出了更高的目标和要求。

安永服务大中华区市场55年,始终以优质的专业服务助力国家战略实施。自粤港澳大湾区战略提出以来,安永积极拥抱湾区时代,联动粤港澳三地服务能力,在大湾区11个城市实现安永资源高效灵活配置,构建面向未来的专业服务体系,紧跟时代步伐,不断丰富服务内容,满足三地发展的新特点和

新要求。作为粤港澳大湾区建设的深度参与者,我 们认为深化产业和制度融合、完善城市协作与分工 将是未来大湾区取得更大突破的关键。

首先,作为世界唯一的"一个国家、两种制度、三个关税区、三种货币"的湾区城市群,粤港澳三地产业优势互补,但也面临资源优化配置的挑战。大湾区需要持续深化产业融合,建设一体化的制度体系,实现先进制造、高新科技和现代服务业的深度融合,构筑起具有国际竞争力的现代产业体系。

其次,要进一步明确大湾区各城市功能定位,细化分析大湾区各中心城市间、中心城市与节点城市间的融合水平,定期对各城市协作分工进行评估和优化,"由点及线、由线到面",实现区域协调发展。

基于上述洞察,安永在大湾区建立"六通十一城"业 务架构,聚焦金融、科技、医疗、基建、人才和ESG 六大领域,提供多元化专业服务,助力大湾区十一 城互联互通、高质量融合发展。

此次,安永与凤凰卫视联合推出的《六通十一城聚光灯——深港融合白皮书》,结合安永"六通十一城"服务经验,深入探讨各城市间的融合发展现状、机遇及挑战。同时,也将借助凤凰卫视国际化的多媒体平台,向世界传播粤港澳大湾区建设的巨大成就和深厚潜力。

在国家的新发展阶段,粤港澳大湾区在贯彻新发展理念、构建新发展格局中发挥着日益重要的示范引领作用。未来,安永与凤凰卫视将继续以专业精神和创新思维,融合全球智慧与本地经验,为大湾区建设作出更大贡献。

The Guangdong-Hong Kong-Macao Greater Bay Area (GBA) initiative is part of the national development strategy President Xi Jinping has envisioned, planned and promoted. The 2019 promulgation of the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area set in motion a concerted effort to integrate amongst the GBA cities. Driven by the spirit of reform and innovation, the major collaborative platforms, such as Qianhai of Shenzhen, Hengqin of Zhuhai, Nansha of Guangzhou, and the Shenzhen-Hong Kong Innovation and Technology Cooperation Zone, have brought forth interconnectivity in infrastructure, alignment of legal and regulatory frameworks, and sociocultural assimilation with consequential progression, ushering in an exciting new era in the GBA.

During his inspection trip to Guangdong Province in April 2023, President Xi explicitly pointed out that the goal is to "make the GBA a strategic fulcrum in our new development framework, a demonstration zone of high-quality growth, and a pacesetter of Chinese-style modernization." This reflects the country's strategic positioning of the GBA in terms of industrial system, scientific and technological innovation, opening-up and regional development, as well as the higher goals and requirements the China has for the GBA development.

EY has been serving the Greater China market for 55 years. We have dedicated our professional services to the implementation of national strategies. Since the GBA development plan was announced, EY has embraced the new era in the GBA by augmenting our joint capabilities in Guangdong, Hong Kong and Macau. We have allocated our resources effectively with enhanced versatility in the 11 GBA cities and stepped up our professional services capacity to meet the demands of the times. We have continued to diversify our service portfolio to satisfy the arising features and needs in the area. As we have been fully involved in the development of the GBA, we see the opportunity for breakthroughs in the deepening of integration among industries and systems, and for the synergies and specialization that emerge as a result of region-wide collaboration.

The GBA is uniquely positioned as the world's only city cluster with a framework of "one country, two systems, three jurisdictions and three currencies." Guangdong, Hong Kong and Macau complement each other with their own industrial strengths but they also face the challenges of optimizing the allocation of resources. The GBA needs a thorough industrial integration, and an accompanying compatibility of systems that enables a high degree of consolidation in advanced manufacturing, high-tech production and modern

services provision. All of these are crucial in establishing a modern industrial system with international competitiveness.

Furthermore, it is necessary to define the functional positioning of the GBA cities, refine and analyze the level of integration among the core cities, as well as the integration between the core and the node cities. These regular assessments will provide insights to facilitate the ongoing urban synergies and specializations as an intercity regional connectivity is formed.

This was why EY set up a service framework with the structure of "Six Connects" in the GBA. Focusing on six major areas – finance, technology, health care, infrastructure, talent and ESG, the framework provides diversified professional services to support the 11 GBA cities in achieving interconnectivity and high-quality integrated development.

Riding on the experience of our "Six Connects" service framework, this whitepaper, jointly published by EY and Phoenix TV, provides an in-depth overview of the current developments, opportunities and challenges of integrative collaboration among the GBA cities. Through Phoenix TV's internationalized multimedia channels, we hope to share with the world the tremendous achievements and potentials of the GBA.

As China enters a new phase of development, the GBA is playing an increasingly leading role in implementing and establishing the nation's new development concept and pattern. In the future, EY and Phoenix TV will continue to make greater contributions to the development of the GBA by integrating global perspective and local experience with professionalism and innovative thinking.

前言 Foreword



徐威 Xu Wei

凤凰卫视董事局主席兼行政总裁 Chairman and Chief Executive Officer Phoenix TV

《粤港澳大湾区发展规划纲要》公布至今已逾四年,粤港澳三地、十一个城市间连接日趋密切,金融、科技、人才、文化等领域的交流也日渐频繁,资源流通不断提速,多元融合引发聚变。大湾区协同发展正从蓝图变为现实,粤港澳开放共进亦更见底气。

大湾区十一个城市各具特色,产业各有侧重。在协同发展过程中,"流通"与"融合"一道,成为高频词。人才、资本、物资、数据等多种要素的流通,使各地互通有无、融合共进;也是在这样的流通中,大湾区融为创新的海洋,各地活力十足、竞争力十足。

更令人欣喜的是,大湾区各个城市、各个行业在流通中拓展新空间,在融合中发现新动能。湾区各城市非但没有弱化各自的差异性,还令自身的独特优势得以显现和放大。大湾区的科技创新、制度创新逐步外溢,正成为引领中国产业发展,助推中外交流接轨的发展极。

凤凰卫视与安永大中华区联手打造《六通十一城聚光灯——深港融合白皮书》,并在凤凰湾区财经论坛上隆重发布,旨在展现湾区互联互通、融合发展的新局面,发现金融、科技、医疗、基建等领域的新机遇,为国际企业投资、发展大湾区提供启示,亦希望为相关部门和机构规划、服务大湾区提供切入口。

作为海外最大的全媒体华语文化传媒集团,凤凰卫视以传播中华文化、凝聚全球华人为己任,接连开辟卫星电视、移动互联网、国际社交平台等渠道,以多平台、多语种、多样态的传播互动,促进中外文化的交流、融合;更以中国视角、国际视野出发,使华人的故事走出去、世界的资讯走进来,以信息的流通、融合促进国际对话。

凤凰卫视发轫于香港,在粤港澳拥有庞大的受众群。 凤凰受益于流通、融合,更坚信其中蕴含着巨大价值。凤凰不仅广泛招募港澳台、内地及海外的媒体精英,实现人才的流通和融合;还借助港交所、纽交所资本的流通、融合,提升媒体价值、扩大华人影响。

凤凰卫视与各界同仁携手合作,连续举办凤凰湾区财经论坛,并通过凤凰国际化全媒体平台广泛传播,让全球华人看到大湾区的高质量发展,感受到粤港澳的勃勃生机。我们坚信,粤港澳大湾区将在加速流通中不断融合聚变、互通有无,稳步迈向国际一流湾区,为中国乃至世界的发展做出更大贡献。

The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area was promulgated in 2019. In the four years since, Guangdong, Hong Kong, Macau and the 11 GBA cities have forged increasingly closer relationships. Frequent exchanges in various sectors, including finance, technology, talent and culture, have culminated in a momentum of resource flow. From a conceived blueprint to a blossoming development, the GBA is experiencing an accelerated process of further opening-up. A path of shared progress has been charted, and the GBA is at the cusp of integration-driven changes.

The 11 GBA cities are all unique in their own ways. There is a broad spectrum of comparative advantages in their native industries. During the process of synergistic development, "connectivity" and "integration" became the GBA buzzwords. Critical production factors, such as talent, capital, goods and data, have moved through deliberately formed connectivity channels. Each city has benefited from connectivity, integration and the joint progress that followed. It is with inter-city connectivity that the GBA emerges as a blue ocean for innovations. All of the GBA cities have seen renewed vitality and competitiveness.

Amidst the process of integration, the GBA cities have shown an encouraging development. Industries have broken new ground for growth as connectivity strengthened. A new vitality surged. Integration did not result in the GBA cities downplaying or diminishing the differences amongst them. Rather, they capitalized on their respective uniqueness, and the result was an enhancement of their strengths. The scientific and systemic innovations in the GBA have also engendered spillover effects. The GBA's developments are now the exemplar for industries nationwide. The GBA has become the node of development that links up China with the rest of the world.

Phoenix TV and EY Greater China Region have joined hands in creating *GBA optics - Interconnectivity in the Greater Bay Area and the Shenzhen-Hong Kong Integration*, which will appear in a grand debut in the Phoenix Financial Forum for the Greater Bay Area. It will present the latest developments in the GBA's connectivity and integration initiatives. Viewers will be introduced to new prospects in finance, technology, health care and infrastructure, etc., with inspiring insights into international corporate investments and further developments in the GBA. It is also hoped that the program will bring forth new thinking in government and institutions, especially in their planning and provision of services to the GBA.

As the largest overseas Chinese-language and culture omni-media group, Phoenix TV is committed to the propagation of Chinese culture in the world, as well as bringing together the Chinese people overseas. With the launch of transmission channels such as satellite TV, mobile internet and global social media, Phoenix TV has positioned itself as multi-platform and multilingual, an interactive media group with diverse communicative forms. Phoenix TV facilitates exchanges and agreements between Chinese and foreign cultures. The Chinese viewpoint and the global perspective are equally important as the starting point. On one hand, Phoenix TV tells the story of the Chinese people to the world. On the other hand, Phoenix TV brings to China the latest global development. Information flow and assimilation are the means by which Phoenix TV advances international dialogue.

Phoenix TV started its first operations in Hong Kong, and naturally there is a large audience base in Guangdong, Hong Kong and Macau. Phoenix TV is itself the beneficiary of connectivity and integration, as such it holds fast to the idea that connectivity and integration initiatives in the GBA bear tremendous value and potential. For example, Phoenix TV hires the best communications talent from Hong Kong, Macau, Taiwan, the mainland and overseas, and this is how the media group has participated in talent flow and integration. Furthermore, Phoenix TV has also capitalized on the flow and integration of capital in the Hong Kong Stock Exchange and New York Stock Exchange, thereby raising our valuation as a media group and our profile as the key conduit of Chinese influence.

The Phoenix Financial Forum for the Greater Bay Area is a joint effort between Phoenix TV and collaborators from many different fields. The forum continues to run and it is widely disseminated via Phoenix TV's international omni-media broadcast network. The forum brings to the fore the high-quality developments of the GBA, revealing to the Chinese people of the world the vigor of Guangdong, Hong Kong and Macau. We firmly believe that the GBA will integrate the changes that result from the accelerating pace of connectivity and integration, and steadily develop itself into a region of international stature. Its contributions to China, and perhaps even to the world, are on the horizon.

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粤港澳大湾区概览

An overview of the Greater Bay Area

强健的经济韧性带来持续复苏

粤港澳大湾区(以下简称"大湾区")包括广东省广州、深圳、珠海、佛山、惠州、东莞、中山、江门和肇庆共九个城市,以及香港、澳门两个特别行政区。总面积约56,098平方公里,人口超过8,630万¹。

截至2022年底,大湾区地区生产总值 (GDP) 超人民币13万亿元 (19,430亿美元)²,已经超越韩国,跻身世界主要经济体前十。2023年一季度,大湾区经济保持平稳向好发展态势,GDP超人民币3万亿元(4,385亿美元)³。新动能快速成长,其中,广东先进制造业投资增长30.5%,新能源装备、智能制造装备、智能节能型家电增速分别达21.8%、9.5%、7.5%⁴。

推进基础设施建设,一体化发展迎来 "加速期"

2023年,广东加快建设"轨道上的大湾区",年度计划 投资人民币1,491亿元,安排铁路项目35个,综合交 通枢纽项目8个,城市轨道交通项目28个。在其他大湾 区基础设施互联互通方面,2023年度计划投资额为人 民币4,900亿元,主要项目围绕综合交通、水利、能源 等基础设施类建设5。基建正加速成为大湾区和广东经 济发展的"助燃剂"。

国际科创中心建设稳步推进,产业协同 至关重要

自《粤港澳大湾区发展规划纲要》落地以来,广东协同港澳,依托横琴、前海、南沙等重大平台促进粤港澳三地合作,不断深化粤港澳科技创新规则衔接、机制对接,从要素、平台、项目、人才等方面加快推动粤港澳科技交流合作。在《2023全球独角兽榜》上,大湾区共有63家独角兽登榜⁶,涵盖消费电子、机器人、新能源汽车等领域。从城市来看,深圳排名第六,广州排名第八,均排进全球独角兽企业总部数量前十。

目前,大湾区产业体系完备,集群优势明显,经济互补性强。香港、澳门服务业高度发达,珠三角九市已初步形成以战略性新兴产业为先导、先进制造业和现代服务

 总面积
 常住人口
 国内生产总值

 5.6万平方公里
 约8,630万
 19,430亿美元



业为主体的产业结构。产业协同将进一步增强大湾区经济发展动能,促进各产业链的衔接和战略型产业的培育,为区域经济整体实力的提高带来合力,尤其在先进装备制造、汽车、新一代信息技术、生物医药与健康产业,有望打造万亿级产业集群。

重磅政策相继落地,推动大湾区全面 开放新格局

十八大以来,国家持续推动大湾区建设,稳步构建"1+N"规划政策体系,全面覆盖基础设施、科技创新、教育合作、财政、商务、金融等主要领域。大湾区合作发展平台不断取得创新和突破,形成由横琴、前海、南沙、河套四个重大合作平台,大广海湾经济区、江门银湖湾滨海新区、东莞滨海湾新区等六大特色平台以及其他相关合作平台构成的"4+6+N"多层级、多样化平台体系。

¹ 粤港澳大湾区门户网,https://www.cnbayarea.org.cn/introduction/content/post_165071.html

² 中国政府网、https://www.gov.cn/xinwen/2023-03/22/content 5747768.htm

³ 广东省统计局,http://stats.gd.gov.cn/tjsj186/index.html

⁴ 广东省财政厅,http://czt.gd.gov.cn/mtgz/content/post_4171101.html

^{5 21}世纪经济报道,https://finance.eastmoney.com/a/202302182640509161.html

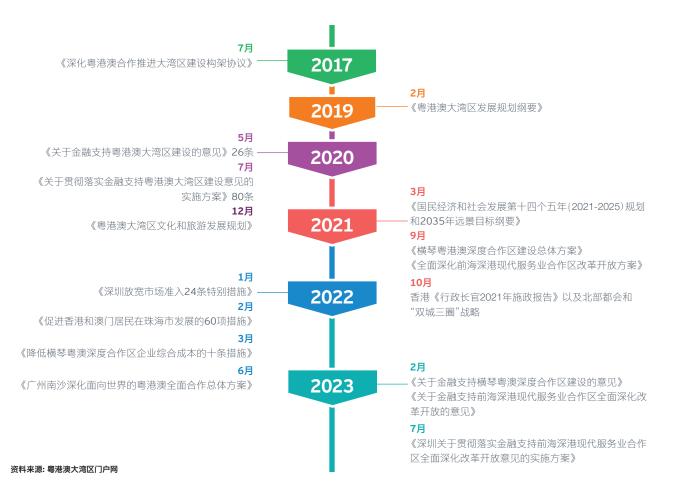
⁶ 粤港澳大湾区门户网, https://www.cnbayarea.org.cn/homepage/news/content/post_1051348.html

横琴粤澳深度合作区 - 是以推动澳门经济适度多元发展为主线的重大合作平台。重点在科技研发和高端制造、中医药、文旅会展商贸、现代金融等方面深化粤澳合作。2023年2月,《横琴粤澳深度合作区发展促进条例》出台,成为深合区制定的首部综合性法规,为合作区长远发展提供制度保障。

前海深港现代服务业合作区 - 以打造全面深化改革创新试验平台、建设高水平对外开放门户枢纽为重点,进一步推进现代服务业创新发展、加快科技发展体制机制改革创新、深化与港澳服务贸易自由化、扩大金融业对外开放、提升法律事务对外开放水平等。

南沙粤港澳全面合作示范区 - 围绕航运物流、高端制造、金融商务、科技创新、生命健康五大主导产业深化与港澳及全球合作。

河套深港科技创新合作区 - 在加速深港协同方面落地实施"深港联合政策包",布局建设大湾区量子科学中心等重大项目、构建"湾区芯谷""量子谷"等重大产业集群,推动国家级科研平台、国际科技组织、香港高校科研机构、国际顶尖研发机构、新型研发机构等集群发展,不断汇聚高端科技创新资源。



Great resilience powers continuous economic recovery

The Guangdong-Hong Kong-Macao Greater Bay Area (GBA) encompasses the nine cities of Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, Zhaoqing of the Guangdong Province, and the Hong Kong and Macao Special Administrative Regions. The total area consists of 56,098 square kilometres, with a population of over 86.3 million¹.

As of the end of 2022, the Gross Domestic Product (GDP) of the GBA has exceeded RMB13 trillion (US\$1.94 trillion)². It has overtaken Korea and become one of the world's top 10 leading economies. In the first quarter of 2023, the GBA has maintained steady economic growth. Its GDP has exceeded RMB3 trillion (US\$438.5 billion)³. The new economy has grown rapidly, in which investment growth in Guangdong's advanced manufacturing sector reached 30.5% year-over-year (YoY), and investment in new energy equipment, smart device manufacturing and smart home devices grew 21.8% YoY, 9.5% YoY and 7.5 % YoY respectively⁴.

Advanced infrastructure and integrated development propels accelerated economic growth

In 2023, Guangdong will speed up construction for the "GBA on Rail" initiative with a planned investment of RMB149.1 billion. There have already been 35 railroads, eight transportation hubs and 28 urban railroad transit projects being arranged. As to connectivity with other GBA basic infrastructures, there is a planned investment of RMB490 billion in 2023, with a focus on infrastructures of integrated transportation, hydraulics and energy⁵. Infrastructure will be the catalyst for the economic development of the GBA and Guangdong Province.

Steady development of international innovative centers engenders critical synergies in the area

Since the rollout of the *Outline Development Plan for* the *Guangdong-Hong Kong-Macao Greater Bay Area*, Guangdong has joined hands with Hong Kong and Macau in facilitating collaboration amongst the three localities via the three platforms of Hengqin, Qianhai and Nansha. These three platforms aim to foster the regulatory and institutional alignment of the technology and innovation sectors, with a proactive approach in promoting exchange and collaboration in elemental requirements, platform, projects and talent. In the Global Unicorn Index of 2023,



63 GBA enterprises were named⁶, covering a wide range of sectors such as consumer electronics, robotics and new energy vehicles (NEV). Shenzhen was ranked sixth, and Guangzhou was ranked eighth, both of which were within the top 10 of the Global Unicorn Index.

Currently, the industrial system in the GBA is well developed with notable advantages from industrial clusters and mutually beneficial economies. The service industries of Hong Kong and Macau are highly developed. The nine cities in the Pearl River Delta are driven by the strategic emerging industries, advanced manufacturing and modern services industries. The synergistic effects of these industries will further propel economic growth in the GBA, facilitate the alignment of the industry chains and nurture the growth of strategic industries. This will fuel the overall performance of the regional economy, especially in the sectors of advanced equipment manufacturing, automotive, new-generation information technology, and biopharmaceuticals and health. In time, trillion-yuan industrial clusters will thrive.

¹ GBA website (cnbayarea.org.cn), https://www.cnbayarea.org.cn/introduction/content/post_165071.html

² The website of the State Council of the People's Republic of China, https://www.gov.cn/xinwen/2023-03/22/content_5747768.htm

³ Guangdong Statistics Bureau, http://stats.gd.gov.cn/tjsj186/index.html

⁴ The Department of Finance of Guangdong Province, http://czt.gd.gov.cn/mtgz/content/post_4171101.html

^{5 21}st Century Economic News, https://finance.eastmoney.com/a/202302182640509161.html

⁶ GBA website (cnbayarea.org.cn), https://www.cnbayarea.org.cn/homepage/news/content/post_1051348.html

Implementation of foundational policies promotes the opening up and development of the GBA

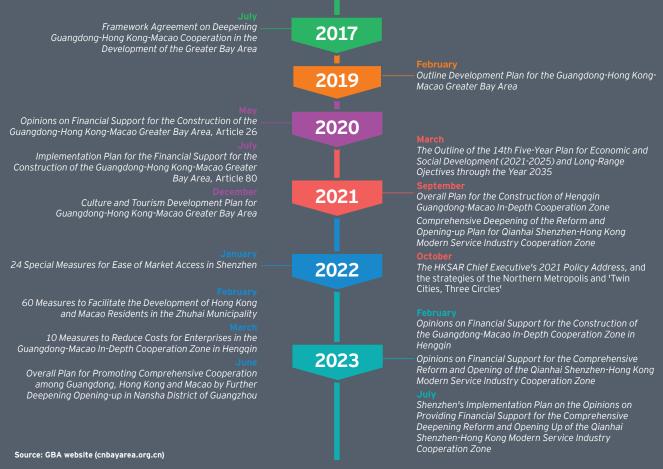
The 18th National Congress of the Chinese Communist Party affirmed the ongoing commitment to promote the development of the GBA. Favorable policies such as "1+N" encompass the critical areas of basic infrastructures, technology and innovation, joint education initiatives, financial planning, commerce, and finance. The effort to introduce innovative development of collaborative platforms in the GBA has made breakthroughs, resulting in the four main platforms of Hengqin, Qianhai, Nansha and Hetao. The Greater Guanghai Bay Economic Zone, Jiangmen Yinhu Bay Area, the Dongguan Binhaiwan Area are part of the special six-platform initiative. There are also other relevant collaborative platforms, together they constitute "4+6+N" – systems that are multilayered and diverse in nature.

The Guangdong-Macao In-Depth Cooperation Zone in Hengqin is a main collaborative effort that aims to promote an adequate level of diversification in Macau's economy, with an emphasis on deepening the economic ties between Guangdong and Macau in the sectors of science and innovation research and development, highend manufacturing, Chinese medicine, culture, tourism, convention and exhibitions, commerce and trade, and modern finances, etc. In February 2023, *The Regulations for Promoting the Development of Guangdong-Macao In-Depth Cooperation Zone in Hengqin* was released, becoming the first integrated regulation for the in-depth cooperation zone, and providing institutional anchor for its long-term development.

The Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone is a pilot scheme with emphases on the comprehensive deepening of reform and innovation and augmentation of economic openness and interconnectivity. It aims to promote innovative developments of the modern services industry, speed up reforms in the institutions for technological advancement, enhance the liberalization of service and trade in Hong Kong and Macau, expand the further opening of the finance industry, and raise the level of openness in legal affairs.

In the Nansha-Guangdong-Hong Kong-Macao Comprehensive Cooperation Demonstration Zone, five main sectors will be the driving force for deepening economic cooperation with Hong Kong and Macau, and global counterparts. These five sectors are maritime logistics, high-end manufacturing, finance and commerce, technological innovations and health care.

The Hetao Shenzhen-Hong Kong Science and Technology Innovation Cooperation Zone aims to speed up policy collaborations, paving the way for major projects such as the Quantum Science Center of GBA, constructing the critical industry clusters of GBA "Microchip Valley" and "Quantum Valley", promoting the cluster development of national research and development platforms, international technological organizations, science and technology institutes in Hong Kong's institutes of higher education, international research institutes and new research institutes, etc. It is through these efforts that new resources for high-end technological innovation will be accumulated.



○ 深圳 – 具有世界影响力的创新之都Shenzhen – World hub of innovation

面积	1,997平方公里
人口	1,766万
地区生产总值 (GDP)	32,388亿元人民币
人均GDP	18.3万元人民币
商务贸易总额(货物)	36,738亿元人民币

数据来源:深圳市统计局,2022年数据

经济概览

- ▶ GDP增速领跑全国一线城市: 2023年一季度,全市 GDP为人民币7,772亿元,同比增长6.5%⁷。工业、制造业持续企稳,新能源汽车、充电桩等高技术产品 保持快速增长态势。
- ▶ 消费稳步回暖,投资增势强劲: 2023年一季度,深 圳消费结构不断优化,社会消费品零售总额达人民币 2,358亿元,同比增长11.8%。基础设施,现代产业 投资增势强劲,全年计划投资人民币1,887亿元°。
- ▶ 外贸出口成为稳增长的关键: 2022年,深圳进出口总额人民币36,738亿元,同比增长3.7%,占大湾区内地9市进出口总值的46.3%,规模连续第30年居内地外贸城市首位。一季度,全市进出口总额人民币7,968亿元,同比增长7.4%¹⁰。2023年,深圳将加快出台系列稳外贸政策措施,发挥深圳RCEP(《区域全面经济伙伴关系协定》)服务中心作用,继续推进跨境电商、市场采购等外贸新业态新模式,帮助企业稳订单、拓市场。

产业结构及未来展望

- ▶ 四大支柱产业保持良好态势:深圳的三次产业结构 主要以二三产业为主,其中,高技术产业投资活 跃。2022年,深圳现代服务业增加值达人民币1.52 万亿元,占服务业增加值比重提高到76.3%。其中, 四大支柱产业 - 文化创意产业、高新技术产业、现代 物流业、金融业保持持续增长。
- ▶ 七大战略性新兴产业¹¹成主引擎: 2022年,深圳市 以先进制造业为主体的战略性新兴产业增加值达人 民币1.33万亿元,同比增长7%,占地区生产总值比 重提高到41.1%¹²。关键核心技术加速突破,制造业 产业集群智能化、高端化、绿色化发展稳步推进。
- 未来产业发挥国家创新型城市引领作用:
 - ▶ 在机器人和智能可穿戴设备产业方面,深圳已成为大湾区机器人的发展"核心"。2022年,全市机器人产业总产值为人民币1,644亿元,同比增长3.9%,机器人企业总数量达1,018家¹³,拥有包含传感器、柔性原件、终端设备、交互解决方案在内的完整产业链。近期印发的《深圳市加快推动人工智能高质量发展高水平应用行动方案(2023-2024年)》¹⁴继续鼓励企业依托河套深港科技创新合作区、前海深港现代服务业合作区或海外研发中心,研发基于国际主流大模型的创新产品,积极拓展国际市场,开展人形机器人规模化应用。

⁷ 深圳市统计局,http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

⁸ 深圳市统计局,http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

⁹ 深圳新闻网,https://baijiahao.baidu.com/s?id=1765110107438263006&wfr=spider&for=pc

¹⁰ 深圳市统计局,http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

¹¹ 七大战略性新兴产业: 新一代信息技术、数字经济、高端装备制造、绿色低碳、海洋经济、新材料和生物医药

¹² 深圳特区报,http://www.szzx.gov.cn/content/2023-04/10/content_30165827.html



"创新"助力深圳"智造"

445家 2.3+万家

独角兽企业

专精特新"小巨人"企业

国家级高新技术企业

资料来源:广东省统计局,深圳市人民政府

- ▶ 在航空航天产业方面,深圳已经形成包括航空航 天材料、精密制造、无人机、卫星研制、行业应 用等相对完善的产业体系。近三年来,深圳航空 航天产业规模保持年均20%以上增速。"卫星+" 产业将进一步加速新技术、新模式、新业态的发 展,并推进深圳人工智能、大数据、物联网等新 技术的融合发展, 形成产业集聚效应, 实现产业 的提档升级。
- ▶ 在生物医药产业方面,深圳独具魅力的生物医 药产业政策, 吸引众多优秀生物医药企业落 地。2023年,全市将重点建设生物医药产业相 关重大项目30余个,投资额共计人民币300余亿 元15,包括生命信息、高端医疗、健康管理、养生 保健、健身休闲等领域。未来,深圳将继续发挥 生物科技细分领域、企业培育、创新生态等方面 优势明显, 加快建立以企业为主体、产学研相结 合的科研和产业化体系,力争到2025年生物医药 产业总产值达到人民币2,000亿元。



- 13 中商产业研究院,https://www.seccw.com/Document/detail/id/19795.html
- 14 深圳特区报,http://www.sz.gov.cn/cn/xxgk/zfxxgj/zwdt/content/post_10623248.html
- **15 羊城晚报,**https://finance.eastmoney.com/a/202212122586504854.html

Land Area	1,997 square kilometers
Population	17.66 million
GDP	RMB 3,238.8 billion
Per-capita GDP	RMB 183,000
Total merchandise trade	RMB 3,673.8 billion

Source: Shenzhen Statisitcs Bureau, 2022 data

Economic overview

- ▶ GDP growth leading in the top-tier cities: During Q1 2023, the GDP of Shenzhen was RMB777.2 billion, a growth of 6.5% YoY⁷. Industries and manufacturing continued to see strong performance. High-tech products, such as NEV and charging stations, have maintained a rapid pace of growth.
- ➤ Consumption levels recovered and investment growth saw strong performance. In Q1 2023, the consumption structure in Shenzhen has been improving. The total retail sales of consumer goods registered RMB235.8 billion, a growth of 11.8% YoY⁸. Investment growth in infrastructure and modern industries is on the uptrend, with a planned annual of RMB188.7 billion this year⁹.
- Export has become the key factor for steady growth. In 2022, the total volume of Shenzhen's foreign trade was RMB3,673.8 billion, a growth of 3.7% YoY, accounting for 46.3% of the total volume of foreign

trade amongst the nine core cities in the GBA. Its scale tops all of the mainland's foreign trade cities for a consecutive 30 years. In Q1 2023, the total volume of Shenzhen's foreign trade was RMB796.8 billion, a growth of 7.4% YoY¹⁰. In 2023, Shenzhen will roll out a series of policies to further stabilize foreign trade and fully optimize the effects of the Regional Comprehensive Economic Partnership (RCEP). These efforts aim to promote emerging models of crossborder e-commerce and market procurement trade, thus supporting enterprises in securing orders and expanding their market presence.

Industry analysis and outlook

- ▶ The four pillar industries have maintained strong performance. The three strata of industry in Shenzhen mainly consists of secondary and tertiary industries. Amongst them, investments in high-tech industries have been thriving. In 2022, Shenzhen's value added of the modern services industry sector was RMB1.52 trillion, accounting for 76.3% of total service industries. The four pillar industries cultural and creative industries, high-tech, modern logistics and finance sectors have maintained an uptrend in their growth.
- ▶ The seven strategic emerging industries¹¹ become the main drivers of growth. The advanced manufacturing industries of Shenzhen registered growth of RMB1.33 trillion, a growth of 7% YoY, accounting for 41.1% of the total GDP¹². Breakthroughs have been made in core technologies, and the manufacturing clusters saw a steady improvement toward innovative, high-end and sustainable development.

⁷ Shenzhen Statistics Bureau, http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

⁸ Shenzhen Statistics Bureau, http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

⁹ Shenzhen News, https://baijiahao.baidu.com/s?id=1765110107438263006&wfr=spider&for=pc

¹⁰ Shenzhen Statistics Bureau, http://tjj.sz.gov.cn/zwgk/zfxxgkml/tjsj/tjfx/content/post_10563496.html

¹¹ The seven strategic emerging industries: new generation information technology, digital economy, high end device manufacturing, green and low carbon economy, ocean economy, new material and biopharmaceuticals.

¹² Shenzhen Special Zone Daily, http://www.szzx.gov.cn/content/2023-04/10/content_30165827.htm

Innovation boost Shenzhen's smart manufacturing

33

445

23,000+

Unicorn Enterprises Specialized and Innovative 'Little Giant' Enterprises National High Tech Enterprises

Source: Guangdong Statistics Bureau, the People's Government of Shenzhen Municipality

- Future industries lead the way of development for innovative cities in China:
 - In terms of robots and wearable smart devices. Shenzhen has already become the core of development in the GBA. In 2022, the total production volume of the robot industry in Shenzhen was RMB164.4 billion, a growth of 3.9% YoY. There was a total of 1,018 enterprises that produced robots¹³. The production chain has full capabilities in transducers, soft robotics, terminal interaction and intelligent interaction solutions. The Action Plan for Speeding Up High-Quality Development and Application in Artificial Intelligence (2023-2024) was recently released14. It encourages enterprises to take advantage of the opportunities in Hetao Shenzhen-Hong Kong Innovation and Technology Cooperation Zone, the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone or overseas research institutes to research and develop mainstream, large-model innovative products. They should set their sights on the international market, and develop humanoid robots and their standardized application.
 - In the aerospace industry, a comprehensive industrial system has taken shape in Shenzhen, with capabilities in aerospace material, precision

- manufacturing, pilotless aircrafts, satellite research and production, and industrial application. During the past three years, the scale of the aerospace industry has kept up with a growth rate of 20% and above per year. The "satellite+" industry will speed up the development of new technologies, modeling and industrial ecosystems. The advances in Shenzhen's artificial intelligence, big data and logistics network will complement each other to result in cluster effects. This will in turn enable the industries to reach new horizons.
- In regard to biopharmaceuticals, Shenzhen's unique industrial policies are attractive to the relevant businesses. In 2023, Shenzhen will be extending significant efforts in more than 30 major projects in the biopharmaceutical sector, with an investment of RMB30 billion¹⁵, focusing on bioinformatics, high-end medicine, health management, wellness, and workout and leisure sub-sectors. In the future, Shenzhen will continue to capitalize on its edge in biotechnology specialties, enterprise building and innovation ecosystem, and speed up the establishment of an enterprise-led model that fuses scientific research and industrialization. Shenzhen will strive to reach RMB200 billion for the total value of its biopharmaceutical industry by 2025.

¹³ AskCI Research, https://www.seccw.com/Document/detail/id/19795.html

¹⁴ Shenzhen Special Zone Daily, http://www.sz.gov.cn/cn/xxgk/zfxxgj/zwdt/content/post_10623248.html

¹⁵ Yangcheng Evening News, https://finance.eastmoney.com/a/202212122586504854.html

○ 广州 – 着力建设国际大都市Guangzhou – Toward a major international metropolis

面积	7,434平方公里
人口	1,873万
地区生产总值 (GDP)	28,839亿元人民币
人均GDP	15.4万元人民币
商务贸易总额(货物)	10,948亿元人民币

数据来源:广州市统计局,2022年数据

经济概览

- ▶ 广州经济正在悄悄回暖: 2023年一季度,广州GDP 为人民币6,964亿元,同比增长1.8%¹⁶,增速在全国十强城市中罕见垫底。但随着广交会的举办,1-4月全市进出口增速由负转正,同比增长11.0%,其中,出口增长20.5%¹⁷。
- ▶ 工业生产稳步恢复,新能源汽车产量倍增: 2023年 一季度,广州工业生产承压恢复,新能源汽车产业 延续较好增势,工业产值、产量同比分别增长71.1% 和88.9%。新一代信息技术产品增势较好,服务机器 人、工业机器人、显示器同比分别增长27.2%、14.3% 和14.0%¹⁸。

▶ 接触型服务行业强劲复苏,"城市更新"提速: 2023年 一季度,全市消费市场回暖明显,社会消费品零售总 额达人民币2,861亿元,同比增长5.5%,已恢复至疫 情前水平¹⁹。"城市更新"重新燃起温度,2023年,广 州计划推进127个城中村改造项目建设,重点推进17 个"城市更新"项目,力争完成人民币2,000亿元²⁰固定 资产投资目标。

产业结构及未来展望

▶ 三大支柱产业增加值已达人民币万亿元,汽车制造贡献最大: 2022年,广州"3+5"战略性新兴产业合计实现增加值人民币8,879亿元,比上年增长1.7%,占地区生产总值的30.8%²¹。三大新兴支柱产业发挥引领作用,新一代信息技术、智能与新能源汽车、生物与医药健康合计实现增加值增长5.4%,潜力逐渐显现。目前,广州已形成以12家整车制造企业为核心、1,200多家零部件企业聚集、"专精特新"企业不断涌现的完整汽车产业链,成为名副其实的汽车重镇。新能源汽车产业转型升级,智慧交通、智慧城市将为广州带来巨大机遇。

广州: 创新企业活力逐步迸发

22家

独角兽企业

专精特新"小巨人"企业

1.2+_{万家}

国家级高新技术企业

资料来源:广东省统计局,广州市人民政府

¹⁶ 广州市统计局,https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html

¹⁷ 广州市统计局,https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_9003661.html

¹⁸ 广州市统计局,https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html

¹⁹ 广州市统计局,https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html

²⁰ 广州市住房和城乡建设局,https://baijiahao.baidu.com/s?id=1756264967278521917&wfr=spider&for=pc

²¹ 广州市统计局,http://tjj.gz.gov.cn/gkmlpt/content/8/8774/mpost_8774545.html#223



- ▶ 重点布局战略新兴优势产业:《广州市战略性新兴 产业发展"十四五"规划》²²明确提出,广州将推动智 能装备与机器人、轨道交通、新能源与节能环保、 新材料与精细化工、数字创意等新兴优势产业加快 发展。
 - 2023年,广州重点建设正式项目共647个,年度 计划投资人民币3,588亿元。对广州而言,发力新 基建重点将聚焦5G、城际轨道交通、智慧港口、人 工智能、工业互联网、智慧充电基础设施等领域。
 - ▶ 在智能装备与机器人产业方面,将加快突破自动控制系统、减速器等关键零部件和集成应用技术,开拓智能工厂、数字化车间等场景应用。同时,提高高端数控机床国产化也是一个重点。
 - 新能源与节能环保产业方面,将以氢能、综合能源、智能电网等为重点,着力构建新能源利用、能源新业态等产业链集群,协同推进循环经济等节能环保产业发展。

- ▶ 新材料与精细化工产业方面,将推动先进基础材料产业转型升级和前沿新材料研发应用,优化提升特色精细化工材料,着力构建具有国际竞争力的新材料和绿色石化产业集群。
- ▶ 数字创意产业方面,将着力推进5G、人工智能、虚拟现实(VR)/增强现实(AR)等新技术深度应用,构建游戏、电竞、动漫、网络、影音等产业生态圈,培育一批具有数字创意头部企业和精品IP。
- ▶ 超前布局未来经济增长极:量子科技、区块链、太 赫兹、天然气水合物、纳米科技等一批前沿产业, 已被列入广州市超前布局、培育新增长点的产业清 单。整体来看,广州各区在区块链产业方面发展协 同性较强;在量子科技产业方面,正努力推动科技 向民用、商用领域普及;国家纳米科技创新基地也 将孕育纳米经济发展新动能,加速向规模化和集聚 化发展。

22 广州市人民政府,https://www.gz.gov.cn/zt/jjsswgh/sjzxgh/content/post_8175867.html

Land Area	7,434 square kilometers
Population	18.73 million
GDP	RMB 2,883.9 billion
Per-capita GDP	RMB 154,000
Total merchandise trade	RMB 1,094.8 billion

Source: Guangzhou Statisitcs Bureau, 2022 data

Economic overview

- ▶ A road to recovery: In Q1 2023, the GDP of Guangzhou was RMB696.4 billion, a growth of 1.8% YoY¹⁶, ranking at the very bottom among the top 10 cities in China. On the good side, the trade growth turned to positive growth of 11% YoY after the Canton Fair, and export increased 20.5% YoY during the same period¹⁷.
- Industrial segment saw steady recovery and the production of new NEV grew multifold. In Q1 2023, Guangzhou's industrial production experienced a revival, particularly in the NEV sector. The value and output volume of NEV grew 71.1% YoY and 88.9% YoY respectively. New-generation technology products experienced uptrend growth, with service robots, industrial robots and display devices growing 27.2% YoY, 14.3% YoY and 14.0% YoY, respectively¹⁸.
- In-person consumption has experienced a strong recovery. "City Renewal" has also accelerated.

 Consumption has shown clear signs of recovery in Q1 2023, with the total retail sales of consumer goods being RMB286.1 billion, a growth of 5.5% YoY, back to the pre-pandemic levels¹⁹. "City Renewal" has also resumed. In 2023, Guangzhou has planned 127 urbanization projects that will transform the village pockets within the city. There will be 17 major "City Renewal" projects, with a target of RMB200 billion in fixed asset investment²⁰.

Industry analysis and outlook

Value added of the three pillars of industries has reached trillion-yuan, among which the automotive industry has made the most significant contribution. In 2022, Guangzhou's "3+5" strategic emerging industries realized a total value added of RMB887.9 billion, a growth of 1.7% as compared to 2021, and accounted for 30.8% of the city's GDP²¹. The three strategic emerging pillar industries led this development. New-generation information technology, smart and new-energy vehicles, biomedicine and pharmaceuticals realized a total 5.4% YoY growth in value added. As of now, an automotive production chain has emerged in Guangzhou, with 12 automotive enterprises that produce whole cars as the core, plus a cluster of 1,200 enterprises supplying car parts, and a consistent stream of new enterprises formed with different specialties. As the NEV industry continues to evolve and advance, intelligent transportation and smart city will bring forth enormous opportunities to Guangzhou.



¹⁶ Guangzhou Statistics Bureau, https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html

¹⁷ Guangzhou Statistics Bureau, https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_9003661.html

 $[\]textbf{18 Guangzhou Statistics Bureau,} \ \text{https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html}$

¹⁹ Guangzhou Statistics Bureau, https://www.gz.gov.cn/zwgk/sjfb/tjfx/content/post_8959204.html

²⁰ Guangzhou Municipal Housing and Urban-Rural Development Bureau, https://baijiahao.baidu.com/s?id=1756264967278521917&wfr=spider&for=pc

²¹ Guangzhou Statistics Bureau, http://tjj.gz.gov.cn/gkmlpt/content/8/8774/mpost_8774545.html#223

Guangzhou: The vitality of innovative enterprises

22 **12**3

12,000+

Unicorn Enterprises Specialized and Innovative 'Little Giant' Enterprises National High Tech Enterprises

Source: Guangdong Statistics Bureau, the People's Government of Guangzhou Municipality

- Policy emphases on strategic emerging industries:
 The 14th Five-Year Plan of Guangzhou on Strategic
 Emerging Industries²² expresses a clear vision for
 Guangzhou to accelerate the development of smart
 devices, robots, urban railroad, new energy, energy
 saving and environmental protection, new materials and
 fine chemicals, and digital creative industry.
 - ► In 2023, there are 647 major construction projects in Guangzhou, with a planned investment of RMB358.8 billion for the year. Guangzhou will pour resources into the new infrastructures with an emphasis on upgrading 5G, the intracity railroad, smart port, artificial intelligence, industrial networks and smart charging stations.
 - ▶ For the intelligent device and robot industries, breakthroughs are expected in critical component parts and their application, such as automated control systems and reducers, intelligent factories and digital factories. There is also a policy emphasis on raising the quality of the national production of digital machine tools.
 - For new energy and energy-saving environmental protection, the focus is on hydrogen energy, integrated energy and smart grid by introducing the use of new energy, and the construction of a production chain cluster for new energy and a circular economy.

- For new materials and fine chemicals, there will be a push for transition and upgrades in advanced basic material industries and the research and application of the latest new materials, with the goal of optimizing the quality and use of fine chemical materials and building cutting-edge new material and green petrochemical clusters that are competitive globally.
- In digital creative industries, Guangzhou is expected to promote the enhanced application of 5G, artificial intelligence, virtual reality and/or augmented reality. These technologies will feature in gaming, Esports, anime, networking and audiovisual industries, whereby industry leaders will nurture digital creativity and high-quality intellectual property.
- economic growth. Some cutting-edge industries, such as quantum technology, blockchain, terahertz, natural gas hydrates and nanotechnology, have been included in Guangzhou's list of major growth industries in its economic planning. There is a stronger synergy in blockchain industries within the different districts in the city. For quantum technology industries, there is a push for the application of innovations in the civilian and commercial contexts. A new "Nano Valley" will also drive further developments in nanotechnology with increased scale and enhanced cluster effects.

22 The People's Government of Guangzhou Municipality, https://www.gz.gov.cn/zt/jjsswgh/sjzxgh/content/post_8175867.html

面积	1,114平方公里
人口	733万
地区生产总值 (GDP)	28,270亿港元
人均GDP	38.5万港元
商务贸易总额(货物)	96,733亿港元

数据来源: 香港政府统计处, 2022年数据

经济概览

- 经济复苏稳步向上,劳工市场持续改善: 2023年一季度,香港GDP实现7,166亿港元,较上年同期实质上升2.7%,扭转上个季度经济收缩4.1%的情况。虽然出口数据仍显疲弱,但随着内地经济持续较快增长,香港航空运力加速恢复。3至5月,劳工市场逐渐复常,经季节性调整的失业率下跌至3.0%²³,大部分主要行业的失业率均有下降。
- ▶ 旅游业刺激消费增长,多举措支持新业态 发展: 2023年一季度,香港私人消费开支同比升 13%,为1987年第三季度以来最大增幅。零售销售 额从2022年12月至2023年2月连续3个月上升,规 模也回升至300亿港元水平。全面通关复常后,访港 旅客持续增加,前5个月,香港入境旅客超过1,000 万人次,已恢复至2017年至2019年平均水平40%以 上,4至5月间入境旅客更恢复至55%²⁴。旅游业和 本地需求将继续成为2023年经济增长的主要动力, 香港应打造更多消费新场景,进一步推动购物便利 化,以重振疫后消费复苏。
- 贸易仍是最大挑战,香港应从传统贸易中心向国际创科贸易中心转型:在欧美经济增长放慢,全球产业链整体较弱的情况下,香港2023年最大的挑战还是贸易方面。截止5月,香港外贸尚未止跌,进口和

整体出口分别下跌16.7%和15.6%²⁵。创造高附加值的服务增强型的制造业是香港今后产业转型的主要任务。香港应从传统贸易中心向国际创科贸易中心转型,透过贸易中心的功能引入创科产业落地,打出"国际贸易+创科金融"的组合拳,为香港创科产业开新篇。

产业结构及未来展望

- ▶ 四大支柱行业26是香港经济动力核心所在:
 - ▶ 贸易及物流业是香港四大支柱行业之首,吸收了香港约17%的就业人口,占GDP约24%²7。香港作为全球最繁忙及最有效率的国际货柜港,是发展地区或跨国物流及供应链业务的理想地点。
 - 金融方面,2022年,港交所IPO融资额在全球交易所中位列第四。目前,香港一方面正积极推动扩大"互联互通"等举措,不断加强与内地的合作并全方位推动人民币国际化;另一方面,也在努力推动规则创新及金融科技与绿色金融的发展,保持在多个金融细分领域的国际领先地位。
 - 作为享誉国际的旅游目的地,香港凭借其独具特色的城市魅力和丰富多元的盛事活动,吸引着来自世界各地的旅客。后疫情时代,香港将推动大湾区旅游产业共融的核心枢纽作用,并将智慧出行、AR/VR智慧旅游场景等创新科技与应用带给消费者。
 - ▶ 专业服务方面,香港积极融入国家发展蓝图,发挥所长。截至2022年,有约2,114家中资企业在香港设立公司,其次为日本1,388家、美国1,258家、英国655家²⁸。通过 CEPA(《内地与香港关于建立更紧密经贸关系的安排》)持续深化合作,香港将成为区域专业服务中心,继续推进现代服务业升级。

²³ 香港政府统计处,https://www.censtatd.gov.hk/tc/

²⁴ 香港政府统计处,https://www.censtatd.gov.hk/tc/scode130.html

²⁵ 香港政府统计处,https://www.censtatd.gov.hk/sc/web_table.html?id=410-50001

²⁶ 香港四大支柱行业: 贸易物流、金融服务、旅游、专业服务及其他工商业支援服务业

²⁷ 香港政府统计处,https://www.censtatd.gov.hk/tc/scode80.html

▶ 加码创新科技产业,积极推动大湾区多领域合作: 为提高香港产业结构水平,构建多元发展,2022年底,特区政府公布《香港创新科技发展蓝图》²⁹, 勾画出未来五至十年创新科技的宏观发展目标和系统战略规划,指明未来香港四大发展方向:完善创科生态圈、推进香港"新型工业化";壮大创科人才库,增强发展动能;推动数字经济发展,建设智慧香港;积极融入国家发展大局,做好连通内地与世界的桥梁。

在2023年的《财政预算案》中³⁰,香港用大量篇幅聚焦创新科技,力求推动经济朝高质量方向发展,并点出数字经济、第三代互联网(Web3)及构建国际绿色科技及金融中心三大发展重点。

此外,香港与深圳也将共同推动深港口岸经济带、北部都会区与河套深港科技创新合作区、前海深港现代服务业合作区等重大平台协同联动发展。通过深度整合大湾区的高校、科研机构、企业的创新资源,有效发挥香港的辐射带动作用,聚集大湾区乃至世界各地的创新资源,形成高新科技产业集群效应,推进香港及湾区其他城市科创研发,提升教育与科技的竞争力。



- 28 深圳商报,https://baijiahao.baidu.com/s?id=1750434895212353033&wfr=spider&for=pc
- **29** 香港特别行政区政府,https://www.info.gov.hk/gia/general/202212/22/P2022122200218.htm
- 30 香港特别行政区政府,https://www.budget.gov.hk/2023/chi/speech.html

Land Area	1,114 square kilometers
Population	7.33 million
GDP	HK\$ 2,827 billion
Per-capita GDP	HK\$ 385,000
Total merchandise trade	HK\$ 9,673.3 billion

Source: The Census and Statistics Department of the HKSAR, 2022 data

Economic overview

- Hong Kong experienced steady economic recovery with continuous improvements in the labor market. In Q1 2023, the GDP of Hong Kong reached HK\$716.6 billion, a growth of 2.7% YoY. Although export remains weak, Hong Kong's aviation capacity has been recovering quickly as the Chinese mainland experiences consistent and rapid economic growth. As the city's labor market gradually recovered between March and May, the seasonally adjusted unemployment rate fell to 3.0%²³, with a drop seen across almost all major sectors.
- Tourism drove consumption expenditure, and numerous measures supported new business ecosystems. Hong Kong's private consumption expenditure in Q1 2023 grew by 13% YoY, which is the largest increase recorded since Q3 1987. Retail sales have increased for three consecutive months from December 2022 to February 2023, thus returning to a notable total of HK\$30 billion. Since the full removal of traveling restrictions between Hong Kong and the mainland, the city has received a growing number of tourists. Over 10 million tourist arrivals were recorded in the first five months this year, exceeding 40% of the average between 2017 and 2019. In particular, the tourist arrivals from April to May reached 55% of the pre-pandemic level²⁴. The tourism industry and local demand will continue to be the primary forces fueling economic growth in 2023. In order to revive postpandemic consumption, Hong Kong should create new

- consumption contexts by enhancing the convenience of shopping experiences.
- As trade remains the greatest challenge, Hong Kong should transition from a traditional trading center into an international innovative center. Trade continues to be Hong Kong's biggest challenge amid slowing global economies and weakening external demand. As of May 2023, Hong Kong's import and total export decreased by 16.7% YoY and 15.6% YoY, respectively²⁵. Thus, creating higher value-added services for its advanced manufacturing industry is an imperative step for Hong Kong to undergo industrial transformation. Progressing toward an international innovative center, Hong Kong can attract innovative industries with its current function as a trading center. Combining the powers of international trade and innovation, Hong Kong will embark upon a new chapter.

Industry analysis and outlook

- ► Four pillar industries²⁶ drive Hong Kong's economy:
 - The trading and logistics industry is the largest among the four pillar industries of Hong Kong, with an employment and GDP share of approximately 17% and 24% respectively²⁷. As it has the busiest and most efficient international container port in the world, Hong Kong is an ideal hub for developing regional and international logistics and supply chain industries.
 - In terms of finance, the amount of IPO financing for the Stock Exchange of Hong Kong was ranked fourth globally in 2022. Currently, Hong Kong is actively expanding measures, such as the Connectivity initiative, to strengthen cooperation with the Chinese mainland, and to comprehensively internationalize the Renminbi. Furthermore, in order to maintain Hong Kong's leading position in various financial segments, regulatory innovation, financial technology and green financing are also being intensively developed.
 - As an internationally renowned tourist destination, Hong Kong attracts visitors from various countries with its unique features, charming attractions and

²³ The Census and Statistics Department of the HKSAR, https://www.censtatd.gov.hk/tc/

²⁴ The Census and Statistics Department of the HKSAR, https://www.censtatd.gov.hk/tc/scode130.html

²⁵ The Census and Statistics Department of the HKSAR, https://www.censtatd.gov.hk/sc/web_table.html?id=410-50001

²⁶ The four pillar sectors of Hong Kong: trade and logistics, financial services, tourism, professional services and other support services for industries and commerce.

²⁷ The Census and Statistics Department of the HKSAR, https://www.censtatd.gov.hk/tc/scode80.html

diverse events. In the post-pandemic era, the city will become an integral node for coalescing and advancing the GBA's tourism industry. Innovative technologies will be applied, allowing tourists to enjoy the city with smart mobility and AR/VR attractions.

- ▶ Regarding the professional sector, Hong Kong is actively integrating into the national development blueprints, within which it will capitalize on its strengths. As of 2022, around 2,114 Chinese enterprises have registered in Hong Kong. The number of such enterprises registered in Japan, the US and the UK are 1,388, 1,258 and 655 respectively²8. Further cooperation between Hong Kong and the Chinese mainland is institutionalized through CEPA (Mainland and Hong Kong Closer Economic Partnership Arrangement), allowing Hong Kong to become a regional center for professional services, while continuously upgrading its modern services industry.
- ▶ New innovation and technology industries will be actively expanded, stimulating multisectoral cooperation in the GBA. In order to improve and diversify Hong Kong's industrial structure, the HKSAR Government rolled out the Hong Kong Innovation and Technology Development Blueprint²⁹ in December 2022. The Blueprint set out macro development targets and strategic plans for the following five to ten years, outlining four broad development directions regarding innovation and technology (I&T): to enhance the I&T

ecosystem, and to promote "new industrialization" in Hong Kong; to enlarge the I&T talent pool, creating a strong impetus for growth; to promote digital economy development and develop Hong Kong into a smart city; and to proactively integrate into the country's overall development, to consolidate its role as a bridge between the mainland and the world.

In the 2023 Budget³⁰, the HKSAR Government elaborated extensively on I&T with the aim of driving high-quality economic development. The digital economy, the third-generation Internet (Web3) and the establishment of an International GreenTech and GreenFi Center were highlighted as three key aspects to accomplish this aim.

Furthermore, Hong Kong and Shenzhen will join hands in developing major synergistic platforms, such as the Shenzhen-Hong Kong Boundary Control Points Economic Belt, the Northern Metropolis, the Hetao Shenzhen-Hong Kong Innovation and Technology Cooperation Zone, and the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone. By leveraging the innovative resources of tertiary institutions, research organizations and industries, Hong Kong will exert effective economic influence, while pooling innovative resources from the GBA and further beyond. The resulting cluster of high-tech industries will bring benefits to fuel research and development, and raise the competitiveness of education and technology in Hong Kong and other cities of the GBA.



28 Shenzhen Economic Daily, https://baijiahao.baidu.com/s?id=1750434895212353033&wfr=spider&for=pc

29 The Government of the Hong Kong Special Administrative Region (HKSAR), https://www.info.gov.hk/gia/general/202212/22/P2022122200218.html

30 The Government of the HKSAR, https://www.budget.gov.hk/2023/chi/speech.html

○ 澳门 – 建设世界旅游休闲中心Macau – Becoming the leisure capital of the world

面积	33平方公里
人口	68万
地区生产总值 (GDP)	1,773亿澳门元
人均GDP	26.1万澳门元
商务贸易总额(货物)	1,533亿澳门元

数据来源:澳门政府统计处,2022年数据

经济概览

- ▶ 旅游业成为带动经济恢复的重要引擎: 2023年一季度,澳门GDP达747亿澳门元,同比增长38.8%,经济总量恢复至2019年同期的66.4%。旅游及相关行业经营快速好转,1-3月,入境旅客人次为494.8万,同比增加1.6倍,为2019年同期旅客量的48.4%,旅客总消费149.8亿澳门元,同比增长120.1%,是2019年同期的91.25%³¹。旅游业刺激消费增长,多举措支持新业态发展。
- ▶ 实体贸易领域持续承压,服务出口推动多元化发展: 2023年一季度,澳门货物出口同比下跌40.6%,进口下跌6.9%,服务进口则上升24.0%。博彩服务出口及其他旅游服务出口分别上升100.0%及72.9%,整体服务出口上升71.5%,对经济增长的贡献达47.8%³²。随着横琴粤澳深度合作区的不断发展,澳门服务出口的转型也迎来了新机遇。合作区着重发展高新技术产业、金融服务、文化创意产业等,都与澳门的服务出口密切相关。通过合作区的合作与交流,澳门将得以进一步提高服务出口的多样性和竞争力。

▶ 扩大内需仍是主要任务,政策层面依赖仍较大: 2023年一季度,澳门私人消费、投资表现较为疲弱,同比均出现萎缩。其中,私人消费同比下降 9.33%(较2019年同期下降11.20%)、投资同比仅微增0.04%(较2019年同期下降9.68%)³³。2023年,澳门先后推出多轮促消费计划,有效发挥提振内需、纾缓居民和商户经济压力的作用。接下来,特区政府应引领小微企业借助当前复苏浪潮,适度转型升级发展,进一步激发消费活力,发挥带动本地消费的作用。

产业结构及未来展望

着力构建可持续、多元的产业发展结构:《2023年财政年度施政报告》34强调,澳门将坚持"1+4"产业适度多元发展策略。促进旅游休闲多元发展的同时,要逐步提升四大产业(大健康、现代金融、高新技术、会展商贸和文化体育)的发展,构建符合澳门实际且可持续发展的产业结构。随着《横琴粤澳深度合作区发展促进条例》35的施行,琴澳一体化发展将迎来更多新机遇。

▶ 以中医药研发制造为切入点,培育发展大健康产业:至2022年底,横琴粤澳合作中医药科技产业园共注册企业233家,其中,澳门企业61家³6,涉及中医药、保健品、医疗器械、医疗服务等领域。粤澳合作中医药科技产业园和经济科技发展局积极推进产业发展,特别为澳门中医药制造产业提供相应支持,以促进澳门经济适度多元发展。目前,内地具规模制药企业已在澳门设立国际总部。

³¹ 澳门政府统计处,https://www.dsec.gov.mo/zh-MO/Statistic?id=901

³² 澳门政府统计处,https://www.dsec.gov.mo/getAttachment/94a8ce1b-a055-4ff6-9ca7-9776689d1332/C_PIB_FR_2023_Q1.aspx

³³ 澳门政府统计处,https://www.dsec.gov.mo/getAttachment/94a8ce1b-a055-4ff6-9ca7-9776689d1332/C_PIB_FR_2023_Q1.aspx

³⁴ 澳门特别行政区政府,https://www.gov.mo/zh-hant/content/policy-address/year-2023/

³⁵ 广东省政府,http://www.gd.gov.cn/gdywdt/zwzt/ygadwq/zxzc/content/post_4091516.html

³⁶ 中国经济网,https://baijiahao.baidu.com/s?id=1764642766618190404&wfr=spider&for=pc

- ▶ 现代金融产业: 截至2022年底,澳门金融业总资产值为2.8万亿澳门元,相当于回归时的20倍。2021年,金融业跃升为第二大产业,占整体行业增加值总额的比重由2019年的6.8%扩大至2021年的15.4%³7。立足于大湾区的基础上,澳门将继续推进"中国—葡语国家金融服务平台",助力"一带—路"建设。
- 科技创新:以横琴粤澳深度合作区为科创新载体,澳门的集成电路产业和生物医药产业已初具规模。澳门在现有跨地区科技合作的基础上,应进一步拓展与内地和香港地区科技合作的广度和深度,继续推进半导体芯片制造项目落地,加快产业布局和企业集聚。
- 会展及文化产业: 2023年,澳门政府将加强与横琴的旅游、会展等方面的合作,做优做精做强综合旅游休闲业。在目前旅游业综合发展的新趋势下,澳门正深化"旅游+"跨界融合,以线上线下形式加强澳门与其他创意城市的交流和合作,在会展活动期间以及举行前后,透过增添更多休闲旅游的体验活动,深化落实"会展环境体验之旅"。同时,在政策支持方面,政府也预留6.5亿澳门元用作提供交通及住宿优惠,开拓更多客源。



37 中国经济网,https://baijiahao.baidu.com/s?id=1764642766618190404&wfr=spider&for=pc

Land Area	33 square kilometers
Population	680,000
GDP	MOP 177.3 billion
Per-capita GDP	MOP 261,000
Total merchandise trade	MOP 153.3 billion

Source: Statistics and Census Service of the Government of the Macao SAR, 2022 data

Economic overview

- The tourism industry of Macau became the main driver of economic recovery. In Q1 2023, the GDP of Macau reached MOP74.7 billion, a growth of 38.8% YoY. The total economic volume has reached 66.4% of the prepandemic levels. Tourism and its relevant industries have seen a significant turnaround. From January to March, 4.948 million visitors entered Macau, a growth of 160% YoY, which reached 48.4% of the visitor volume in 2019. Total tourist spending amounted to MOP14.978 billion, a growth of 120.1% YoY, which reached 91.25% of the same in 2019³¹. Tourism stimulates economic growth, and new measures should be introduced to support a new ecosystem in the industry.
- Trade in physical products is under pressure, a push for service export will bring forth diversification in economic development. In Q1 2023, the export of physical goods in Macau dropped 40.6% YoY and import dropped 6.9% YoY. Import of services, on the other hand, rose 24.0% YoY. The export of gambling services and other tourist services rose 100.0% and 72.9% YoY, respectively. The overall export of services rose 71.5% YoY, contributing 47.8% to the economic growth³². As the Guangdong-Macao In-Depth Cooperation Zone in Hengqin continues to develop, there will be new opportunities in Macau's transition of its service export. The Hengqin cooperation zone specializes in the development of high-tech industries, financial services, and cultural and creative industries, all of which are

- closely related to service export. The collaboration and exchanges in the cooperation zone will augment the diversity and competitiveness of Macau's service export.
- The main objective is to boost domestic demand, and there is a notable dependence on policy incentives. In Q1 2023, Macau's private consumption and investment were weak and saw a YoY decrease. Private consumption dropped 9.33% YoY (a 11.2% YoY drop from the same period in 2019), and investment rose marginally at 0.04% YoY only (a 9.68% YoY drop from the same period in 2019)³³. In 2023, Macau has rolled out multiple rounds of consumption incentives, effectively reviving domestic demand and relieving some economic pressure for residents and businesses. As a next step, the Macao SAR Government should push small and micro enterprises' transition and upgrade further by riding on the current tides of economic recovery, injecting certain vitality into the economy and boosting domestic consumer demand.

Industry analysis and outlook

- Continuous development of the sustainable, diverse industrial structure. In the 2023 Policy Address³⁴, emphasis was placed upon Macau's commitment to the "1+4" Diversified Development Strategy. It aims to facilitate the development of tourism and leisure industries, but at the same time gradually augment the four main industries of big health; modern finance; high tech; and convention, exhibition, trade, culture and sports. It is expected to bring forth an industrial structure that is pragmatic and sustainable. As the Development Promotion Regulations of the Guangdong-Macao In-Depth Cooperation Zone in Hengqin³⁵ has been implemented, the integration between Hengqin and Macau will bring forth new windows of possibilities.
 - ► The research, development and manufacture of Chinese medicine will be the way into big health industries. As of the end of 2022, 233 registered enterprises have set foot in the Traditional Chinese Medicine Science and Technology Industrial Park of Cooperation between Guangdong and Macao. Amongst them, 61 are Macau enterprises³6 with

³¹ Statistics and Census Service of the Government of the Macao Special Administrative Region (Macao SAR), https://www.dsec.gov.mo/zh-MO/Statistic?id=901

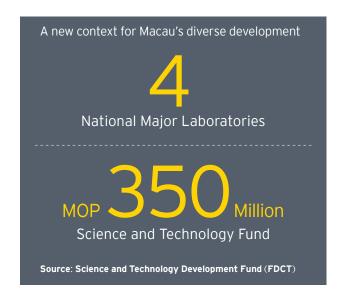
³² Statistics and Census Service of the Government of the Macao SAR, https://www.dsec.gov.mo/getAttachment/94a8ce1b-a055-4ff6-9ca7-9776689d1332/C_PIB_FR_2023_Q1.aspx

³³ Statistics and Census Service of the Government of the Macao SAR, https://www.dsec.gov.mo/getAttachment/94a8ce1b-a055-4ff6-9ca7-9776689d1332/C_PIB_FR_2023_Q1.aspx

³⁴ The Government of the Macao SAR, https://www.gov.mo/zh-hant/content/policy-address/year-2023/

- operations in Chinese medicine, health care products, medical equipment and medical services, etc. The Traditional Chinese Medicine Science and Technology Industrial Park of Cooperation between Guangdong and Macao and the Economic and Technology Development Bureau (DSEDT) provide support to Macau's Chinese medicine production industry in order to facilitate diverse economic development in Macau. Currently, most large Chinese pharmaceutical companies have already established their international headquarters in Macau.
- Modern financial services industry will be the bridge between China and Portuguese-speaking countries. As of the end of 2022, the total assets of Macau's finance industry was MOP2.8 trillion. This is 20 times the level at Macau's handover to China. In 2021, the finance industry took off and made it Macau's second-largest industry. Its percentage in total value added to overall industries rose from 6.8% in 2019 to 15.4% in 2021³⁷. With a strong footing in the GBA, Macau shall continue to establish itself as the financial service platform between China and Portuguese-speaking countries and make a significant contribution to the Belt and Road initiative.
- In terms of technological innovations, the Guangdong-Macao In-Depth Cooperation Zone in Hengqin is the new hub for technology and innovation. The integrated circuit and biopharmaceutical industries of Macau have established a certain scale. On the basis of the current cross-border technological cooperation, Macau should broaden the scope and depth of collaborative efforts with the Chinese mainland and Hong Kong, and continue to implement semiconductor and microchip projects, thereby speeding up the industrial setting and enterprise cluster.

The Macao SAR Government shall enhance the convention, exhibition and culture industries by collaborating with Henggin's tourism, convention and exhibition industries, with the goals of optimizing and enhancing the integration of tourism and leisure industries. A new trend of integrated tourism has emerged recently. Macau is deepening its efforts in "Tourism+", especially in cross-border initiatives. Both online and offline, Macau has strengthened ties with other innovative cities. During shows and trade fairs, Macau introduces "exhibition tourism" by offering options for leisure activities. As a policy incentive, the Macao SAR Government has also earmarked MOP650 million for deals in transportation and accommodation, and this is expected to bring in new clientele.



 $[\]textbf{35} \ \ \textbf{The People's Government of Guangzhou Municipality}, \ \textbf{http://www.gd.gov.cn/gdywdt/zwzt/ygadwq/zxzc/content/post_4091516.html}$

³⁶ China Economic Net, https://baijiahao.baidu.com/s?id=1764642766618190404&wfr=spider&for=pc

³⁷ China Economic Net, https://baijiahao.baidu.com/s?id=1764642766618190404&wfr=spider&for=pc

○ 佛山 – 突出打造大湾区"智造高地"Foshan – A powerhouse for "Smart Manufacturing"

面积	3,798平方公里
人口	955万
地区生产总值 (GDP)	12,698亿元人民币
人均GDP	12.7万元人民币
商务贸易总额(货物)	6,638亿元人民币

数据来源:佛山市统计局,2022年数据

经济概览

- ▶ 一季度开局良好,工业企稳回升: 2023年一季度, 佛山GDP为人民币2,873亿元,增长4.1%。工业增 长快速回升,全市完成规模以上工业增加值人民币 1,395亿元,增长6.3%³8。
- ▶ 出口表现亮眼,消费市场回升: 2023年一季度,全市完成进出口总额人民币1,925亿元,增长6.2%³⁹。新兴市场进出口表现亮眼,"一带一路"沿线国家和RCEP其他成员国成为重要增长点。全市实现社会消费品零售总额人民币975亿元,增长0.8%⁴⁰,仍有很大增长空间。

产业结构及未来展望

▶ 做强万亿产业集群,探索数字化、绿色化转型新模式: 2023年3月,佛山正式发布《关于高质量推进制造业当家的行动方案》⁴1,提出做强做优泛家居、装备制造、智能家电三个万亿元级产业集群的目标。打通传统制造业与消费端大数据应用,实现研发、生产、销售和服务全链条是下一步产业集群数字化、智能化转型的重点。

- ▶ 做优做精汽车及新能源、军民融合及电子信息产业 集群:佛山汽车产业近年来实现了快速发展,产 业规模不断扩大。培育壮大锂电池装备制造产业是 佛山下一阶段的发展重点。借助大湾区新能源大市 场的区位优势,佛山将进一步完善在锂电新能源产 业链及电池回收业务的整体战略布局,并通过协同 效应降低企业生产成本,打造高水平新能源汽车产 业新高地。在电子信息、半导体及集成电路产业方 面,佛山也已出台多个行动方案,力争到2025年产 业营收规模超人民币100亿元。其中,差异化路径, 错位布局,匹配南海产业资源等将是佛山半导体产 业培育的发展路线。
- ■点培育战略性新兴产业集群,推动大湾区制造业高质量发展:智能制造装备及机器人、新材料、食品饮料、生物医药及大健康是佛山旨在培育发展的四个重点产业集群,力争到2026年规模均突破人民币3,000亿元。"工业基础+政策引导"将支撑佛山在原有传统制造业转型升级过程中,加速推进数智化转型,超9,400家规模以上工业企业意味着巨大的集成应用空间。

³⁸ 佛山市统计局,http://www.foshan.gov.cn/gzjg/stjj/tjfx_1110960/content/post_5596554.html

³⁹ 佛山市统计局,http://www.foshan.gov.cn/gzjg/stjj/tjfx_1110960/content/post_5596554.html

⁴⁰ 佛山市统计局,http://www.foshan.gov.cn/gzjg/stjj/tjfx_1110960/content/post_5596554.html

⁴¹ 佛山市政府, http://www.foshan.gov.cn/zwgk/zwdt/bmdt/content/post_5563093.html

Land Area	3,798 square kilometers
Population	9.55 million
GDP	RMB 1,269.8 billion
Per-capita GDP	RMB 127,000
Total merchandise trade	RMB 663.8 billion

Source: Foshan Statisitcs Bureau, 2022 data

Economic overview

- ▶ Q1 saw good economic growth with industrial performance recovered. In Q1 2023, Foshan's GDP was RMB287.3 billion, a growth of 4.1% YoY. Industrial growth recovered rapidly and enterprises above the designated size in the city reached value added of RMB139.5 billion, a growth of 6.3% YoY³⁸.
- There are bright spots in export and the consumer market is on the uptrend. In Q1 2023, the total volume of import and export city-wide reached RMB192.5 billion, a growth of 6.2% YoY³⁹. The import and export from emerging markets were the bright spots. Belt and Road countries and other member states of RCEP became an important impetus for growth. Foshan's total retail sales of consumer goods reached RMB97.5 billion, a growth of 0.8% YoY⁴⁰, with much room for further growth.

Industry analysis and outlook

Strengthen the trillion-yuan-clusters, explore digitalization and the transformation of new green models. In March 2023, Foshan issued the Action Plan for High Quality Promotion of Manufacturing Leaders⁴¹, in which it proposed that the three industries of home, equipment making and smart home appliances be developed into trillion-yuan industry clusters. This effort will result in an alignment of traditional manufacturing with the increasing application of big data on the consumer end, with the realization of an industry chain to encompass research and development, production, sales and services as the core objective of digital transformation.

- Optimize and raise the quality of automotive and NEV industries, integrate the military and civilian use of technology and create an information industry cluster. The automotive industry of Foshan has experienced rapid development in recent years with a continuous expansion of its scale. For Foshan, the next critical goal in its developmental agenda is the nurture of a strong lithium battery production and recycling industry. With the advantages of the GBA's market positioning in new energy, Foshan shall further refine the strategic context for the production chain of lithium batteries, lower the production costs for relevant enterprises and create the favorable conditions for high-quality new energy automobiles. For the digital information, semiconductor and integrated circuit industries, Foshan has also rolled out a number of policy initiatives, striving for reaching a 10-billion-yuan operation scale for these industries by 2025. Amongst various objectives, product differentiation, multi-position management and access to the industrial resources of the South China Sea will be the key contributing factors for the development of Foshan's semiconductor industry.
- by promoting high quality development of the GBA's manufacturing industry. Foshan is focused on the development of four key industry clusters, including smart devices production and robots, new material, food and beverages, biopharmaceuticals and big health. It strives for an operation scale of more than RMB300 billion for these industries by 2026. The good foundation of the traditional manufacturing industries and new policy stimulus will further push the city's digitalization. With more than 9,400 enterprises above the designated size, Foshan bears great promise in enterprise application integration.

³⁸ Foshan Statistics Bureau, http://www.foshan.gov.cn/gzjg/stjj/tjfx_1110960/content/post_5596554.html

³⁹ Foshan Statistics Bureau, http://www.foshan.gov.cn/gzjg/stjj/tjfx_1110960/content/post_5596554.html

 $[\]textbf{40 Foshan Statistics Bureau,} \ \text{http://www.foshan.gov.cn/gzjg/stjj/tjfx} \\ \textbf{21110960/content/post_5596554.html}$

⁴¹ Foshan Statistics Bureau, http://www.foshan.gov.cn/zwgk/zwdt/bmdt/content/post_5563093.html

○ 东莞 – 新兴产业研发基地、国际制造中心

Dongguan – The research base for strategic emerging industries, and an international manufacturing giant

面积	2,460平方公里
人口	1,044万
地区生产总值 (GDP)	11,200亿元人民币
人均GDP	10.7万元人民币
商务贸易总额(货物)	13,927亿元人民币

数据来源: 东莞市统计局, 2022年数据

经济概览

- ▶ 经济运行总体稳定,新动能提供有效支撑: 2023年 一季度,东莞GDP为人民币2,545亿元,同比增长 2.2%⁴²。新动能、新业态对东莞经济发展的支撑作用 愈发明显。其中,高技术产品产量实现较快增长, 比如充电桩增长67.4%,工业机器人增长26.4%⁴³。
- ▶ 外贸进出口继续走在全国前列,消费市场由负转 正: 2023年一季度,东莞外贸总额为人民币2,887 亿元,排名全国第六⁴⁴。其中,清溪保税物流中心进 出口总值达人民币42.3亿元,按季度计首次在全国 84个保税物流中心中排名第一。在各项促消费措施 助推下,一季度,东莞社会消费品零售总额达人民 币1,149亿元,同比增长2.2%⁴⁵,恢复态势明显。即 时零售、本地零售等新业态正在成为本地消费的加 速器。

产业结构及未来展望

▶ 传统产业走上数字化"快车道": 纺织服装、食品粮油、现代家具、造纸及纸制品、玩具及文体用品等是东莞的传统产业集群。为推动企业数字化从单项覆盖向集成提升、创新突破发展,2022年,东莞市政府常务会议审议通过《东莞市数字经济发展规划(2022-2025年)》46,持续推动传统企业实施自动化智能化改造。

- ▶ 做强优势产业,打造大湾区机器人创新发展新高地:以机器人为代表的高端装备产业,已成为东莞除电子信息外的第二大支柱产业。2023年一季度,工业机器人产量同比增长26.4%⁴7。不同于佛山机器人产业以数字化转型为重点,未来,东莞机器人产业将更多呈现出探索自主转型的姿态,围绕工业机器人及高端智能装备、无人自主技术产品,工业大数据等装备及核心部件开展研发和成果转化。
- ▶ 加快培育新兴产业:依托松山湖高新区打造创新发展极,东莞将聚力发展新能源、新材料、生命科学和生物技术等新兴产业领域。数据显示,2022年,东莞新能源产业集群实现营收人民币667亿元,同比增长11.3%。龙头企业正瞄准新型储能、新能源汽车等产业发展机遇。

⁴² 东莞市统计局,http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4175110.html

⁴³ 中国经济周刊,http://www.ceweekly.cn/2023/0531/414978.shtml

⁴⁴ 海关总署,https://baijiahao.baidu.com/s?id=1764008571549490806&wfr=spider&for=pc

⁴⁵ 东莞市统计局,http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4175110.html

⁴⁶ 东莞市人民政府,http://www.dg.gov.cn/jjdz/tpxw/content/post_3919371.html

⁴⁷ 羊城晚报,https://baijiahao.baidu.com/s?id=1764130578602370736&wfr=spider&for=pc

Land Area	2,460 square kilometers
Population	10.44 million
GDP	RMB 1,120 billion
Per-capita GDP	RMB 107,000
Total merchandise trade	RMB 1,392.7 billion

Source: Dongguan Statisitcs Bureau, 2022 data

Economic overview

- ▶ Dongguan's economy was stable overall, with effective support from new growth drivers. In Q1 2023, Dongguan's GDP was RMB254.5 billion, a growth of 2.2% YoY⁴². The new growth drivers are increasingly pronounced in supporting Dongguan's economic development, and the high-tech products have grown rapidly. For example, the growth in the production of electric charging stations increased 67.4% YoY, and the growth of industrial robots increased 26.4% YoY⁴³.
- Dongguan remains China's top performer in trade. The consumer market bounced back as well. In Q1 2023, the total volume of foreign trade was RMB288.7 billion and Dongguan was ranked sixth nationally⁴⁴. The total volume of import and export for the Dongguan Qingxi Bonded Logistics Center was RMB4.23 billion, which made it the top performer among the 84 similar logistics centers nationally. With relevant policy support, Dongguan's total retail sales of consumer goods reached RMB114.9 billion, a growth of 2.2% YoY⁴⁵. The trend of recovery has been pronounced. Instant and local retail has become the key features of the economy and accelerated domestic consumption.

Industry analysis and outlook

- ▶ Traditional manufacturing industries are riding the digitalization wave. Textile and clothing, food and groceries, modern furniture, pulp and paper, and toys and stationery are native to Dongguan's traditional industrial clusters. In order to augment digitalization to an integrated level with breakthroughs, the Dongguan Municipal People's Government passed the Development Plan for Dongguan's Digital Economy (2022-2025) in 2022⁴6, and continues to encourage traditional enterprises to upgrade through automation and smart transformation.
- Strengthen industries with comparative advantage and create the conditions for robotics innovations in the GBA. Robotics has already become the second-largest pillar industry of Dongguan after electronic information. In Q1 2023, the production volume of industrial robots grew 26.4 YoY%⁴⁷. Different from Foshan's digitalization focus on the robotics industry, Dongguan's industry plan will lean toward a natural transition, more so focused on industrial robots and high-end smart devices, automated technological products, industrial big data, etc. These areas are concerned with the research, development and innovation of equipment and core components.
- Speed up the development of strategic emerging industries. The Songshan Lake National High-Tech Industrial Development Zone will become the site of nodal economic development in Dongguan's innovative industries, providing the impetus for emerging industries such as new energy, new material, bioscience and biotechnology. Data shows that in 2022, the new energy industrial cluster of Dongguan realized an operational income of RMB66.7 billion, a growth of 11.3% YoY. The leading enterprises have set their sights on the opportunities in new energy storage and NEVs.

⁴² Dongguan Statistics Bureau, http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4175110.html

⁴³ China Economic Weekly, http://www.ceweekly.cn/2023/0531/414978.shtml

 $[\]textbf{44} \ \ \textbf{The General Administration of Customs of the People's Republic of China}, \\ \textbf{https://baijiahao.baidu.com/s?id=1764008571549490806\&wfr=spider\&for=pcd$

⁴⁵ Dongguan Statistics Bureau, http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4175110.html

 $[\]textbf{46 Dongguan Municipal People's Government,} \ http://www.dg.gov.cn/jjdz/tpxw/content/post_3919371.html$

⁴⁷ Yangcheng Evening News, https://baijiahao.baidu.com/s?id=1764130578602370736&wfr=spider&for=pc

🔾 惠州 – 打造能源科技创新中心 Huizhou - New energy innovation base

面积	11,347平方公里
人口	605万
地区生产总值 (GDP)	5,401亿元人民币
人均GDP	8.9万元人民币
商务贸易总额(货物)	3,091亿元人民币

数据来源:惠州市统计局,2022年数据

经济概览

- ▶ 增速领跑全省,固定投资是经济发展的"压舱石: 2023年一季度,惠州GDP达人民币1,201亿元,同比 ▶ 生命健康再添新动能,围绕中医药产业基础延伸发 增长3.8%。工业投资持续高位增长,其中,先进制造 业投资增长28.5%; 工业技改投资增长30.6%48, 产业 链现代化水平不断提升。
- ▶ 消费回暖态势明显, 进出口持续承压: 2023年一季 度,全市社会消费品零售总额人民币525亿元,同比 增长4.6%49。消费升级类商品增长较快,网上零售 增长强劲。进出口降幅收窄, 货物进出口总额为人民 币695亿元,同比下降1.4%。值得一提的是,作为国 内重要的新能源电池产业基地,惠州2023年3月锂电 池出口大幅增长。在此期间,惠州出口锂电池人民币 14亿元,增长90.4%50。

产业结构及未来展望

▶ 增强制造业核心竞争力,打造两个万亿级产业集 群: 2023年初,《惠州市制造业高质量发展三年行 动方案(2023-2025年)》提出,到2025年,惠 州全市工业总产值要突破人民币2万亿元; 力争到

2025年。"3+7"工业园区规模以上工业总产值达人 民币1.5万亿51。其中,集中力量加快打造石化能 源新材料和电子信息两个万亿级产业集群是重中之 重。能源是大湾区建设的基础之一,惠州市背靠大 亚湾石化区,拥有丰富的石油化工资源,同时也拥 有风能、水能、太阳能、地热能、抽水蓄能以及天 然气发电等清洁能源,这为惠州乃至整个大湾区的 能源产业发展提供了先发优势。在电子信息产业方 面,2022年,惠州总产值首次突破人民币5,000 亿元大关,其中,12家企业产值超百亿元52。清洁 能源、新能源电池将是未来惠州创新发展的重要抓 手, 为大湾区抢占全球清洁能源产业制高点奠定坚 实基础。

展康养、旅游等健康相关产业: 到2025年, 惠州生 命健康产业集群规模预计达到人民币300亿元以上。 惠州将继续推进中医药关联产业发展,做长中医药 产业链。

⁴⁸ 惠州市统计局,http://www.huizhou.gov.cn/zwgk/hzsz/jgdt/content/post_4966685.html

⁴⁹ 惠州市统计局,http://www.huizhou.gov.cn/zwgk/tjxx/jjyxjk/content/mpost_4965956.html

⁵⁰ 南方日报,https://baijiahao.baidu.com/s?id=1764062788425713633&wfr=spider&for=pc

⁵¹ 惠州市人民政府,http://www.huizhou.gov.cn/zfxxgkml/hzsrmzf/zwdt/ldtzhd/content/post_4892622.html

⁵² 惠州市人民政府,http://www.huizhou.gov.cn/zwgk/hzsz/zwyw/content/post_4944069.html 南方都市报,https://view.inews.qq.com/wxn/20230128A040YG00?refer=wx_hot&web_channel=detail&originPath=q

Land Area	11,347 square kilometers
Population	6.05 million
GDP	RMB 540.1 billion
Per-capita GDP	RMB 89,000
Total merchandise trade	RMB 309.1 billion

Source: Huizhou Statisitcs Bureau, 2022 data

Economic overview

- Economic growth leading in the province, with fixed asset investment contributing the most.

 In Q1 2023, Huizhou's GDP registered RMB120.1 billion, a growth of 3.8% YoY. Investment in advanced manufacturing saw 28.5% YoY growth, and industrial technology improvement investment grew 30.6% YoY⁴⁸. Modernization of the production chain continued.
- Consumption exhibited a clear uptrend, but trade was still under pressure. In Q1 2023, the total retail sales of consumer goods was RMB52.5 billion, a growth of 4.6% YoY⁴⁹. Upgraded consumer goods experienced a relatively large growth rate, and online retail sales had strong performance. The decline in trade slowed, and the total volume of import and export of goods registered RMB69.5 billion, a 1.4% drop YoY. It is worth noting that, as an important industrial base for new energy batteries, Huizhou's export volume of lithium batteries has grown significantly in March this year, amounting to RMB1.4 billion, with a 90.4% YoY growth⁵⁰.

Industry analysis and outlook

- Enhance the core competitiveness of the manufacturing industry, create the conditions for a two-trillion-yuan industry cluster. Early this year, Huizhou issued the Three-Year Action Plan for High Quality Development (2023-2025), in which it proposed that by 2025, Huizhou's total industrial production volume city-wide must exceed RMB2 trillion. The city will strive to reach RMB1.5 trillion in the total production volume in its "3+7" industrial campus for enterprises above the designated size by 2025⁵¹. There will be key efforts in creating the two clusters of petrochemical new materials and electronic information to reach a scale of trillion yuan. Energy is one of the building blocks for facilities construction in the GBA. Huizhou is in proximity with the natural endowment of petrochemical resources in the Daya Bay. At the same time, it also has the capacity for clean energy such as wind power, hydropower, solar power, geothermal energy, pumped-storage hydroelectricity and natural gas. This places Huizhou and the whole GBA in the prime position for energy industry development. In terms of electronic information, the total production volume in Huizhou reached over the RMB500 billion threshold for the first time in 2022. Twelve enterprises had a total production volume of more than RMB10 billion⁵². Clean energy and new energy battery will be an important agenda for Huizhou's continuous commitment to innovative development. Huizhou will provide the foundation and favorable conditions that enable the GBA to garner global market share in the clean energy generation arena.
- The health and wellbeing industry will become a new growth driver. With the Chinese medicine industry as the basis, Huizhou will develop health care, wellbeing and medical tourism. By 2025, the health and wellbeing industry cluster in Huizhou will reach the scale of over RMB30 billion. Huizhou will continue to promote the development of Chinese medicine-related industries and create the conditions for a full production chain in Chinese medicine.

⁴⁸ Huizhou Statistics Bureau, http://www.huizhou.gov.cn/zwgk/hzsz/jgdt/content/post_4966685.html

⁴⁹ Huizhou Statistics Bureau, http://www.huizhou.gov.cn/zwgk/tjxx/jjyxjk/content/mpost_4965956.html

 $[\]textbf{50 Nanfang Daily,} \ https://baijiahao.baidu.com/s?id=1764062788425713633\&wfr=spider\&for=pc$

⁵¹ The People's Government of Huizhou City, http://www.huizhou.gov.cn/zfxxgkml/hzsrmzf/zwdt/ldtzhd/content/post_4892622.html

⁵² The People's Government of Huizhou City, http://www.huizhou.gov.cn/zwgk/hzsz/zwyw/content/post_4944069.html
Southern Metropolis Daily, https://view.inews.qq.com/wxn/20230128A040YG00?refer=wx_hot&web_channel=detail&originPath=q

○ 珠海 – 国际科技创新中心

Zhuhai - An international innovation center

面积	1,736平方公里
人口	248万
地区生产总值 (GDP)	4,045亿元人民币
人均GDP	16.4万元人民币
商务贸易总额(货物)	3,053亿元人民币

数据来源:珠海市统计局,2022年数据

经济概览

- ▶ 工业投资快速增长,消费市场回升: 2023年一季度, 珠海GDP为人民币968亿元,同比增长4.1%。工业投 资增速达到67.1%⁵³,增速位于珠三角9市之首。同 期,全市社会消费品零售总额达人民币262亿元,增 长4.4%,免税店免税品销售同比大涨,其中,2月销 售同比增长112%⁵⁴。
- ▶ 外贸受内外需求持续走弱影响,整体有所降温: 2023年一季度,珠海完成外贸进出口总额人民币 633亿元,下降15.4%。作为高新技术发展的重点城市,珠海应加强外贸创新驱动发展,把握横琴粤澳深度合作区的发展机遇,推动产业链在大湾区平台上进行优化整合。转变外贸发展方式,更多利用政策支持高技术产品出口是珠海转型的关键。

产业结构及未来展望

▶ 四大主导产业中,新能源发展较好: 2023年一季度, 珠海市"4+3"产业集群⁵⁵实现增加值人民币282亿元, 增长10.7%,占规模以上工业增加值的比重为77.3%。 其中,新能源、智能家电、生物医药与健康、集成电路、高端装备制造产业增加值分别增长38.3%、 17.9%、13.6%、9.4%、7.7%⁵6。珠海是产业链条最为完善、也是最具特色的城市之一。2023年的政府工作 报告再次提出,珠海将抢抓产业风口机遇,抓紧推进锂电池材料、光伏电池、光伏组件等龙头项目,力争三年内打造人民币5,000亿元规模的新能源产业集群。

▶ 横琴持续推动大湾区科技创新、协同发展: 随着横琴粤澳深度合作区建设的加速推进,2022年合作区开票企业户数累计同比增长5.9%,合作区四大产业(科技研发和高端制造、中医药等澳门品牌工业、文旅会展商贸、现代金融)贡献税收同比增长9.1%,占整体税收比重达34.3%⁵⁷。新技术产业,特别是集成电路产业在过去一年发展迅速。接下来,随着政策陆续落实以及体制机制创新实践,横琴合作区将进一步加快形成良好的制度型开放的营商环境,重点布局和引培"前瞻创新"型项目和企业,同时把珠海、澳门调动起来,在此基础上推动产业多样化发展、建设大湾区的新高地。

⁵³ 广东省政府,http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4172632.html

⁵⁴ 东方财富网,https://finance.eastmoney.com/a/202305242732605561.html

⁵⁵ 珠海"4+3"产业集群: 新一代信息技术、新能源、集成电路、生物医药与健康4大主导产业以及智能家电、装备制造、精细化工3大优势产业

⁵⁶ 珠海市统计局,http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4172632.html

⁵⁷ 广东省税务局,https://guangdong.chinatax.gov.cn/hqgkml/mltpxw/2023-01/23/content_ba2234dcfbbb4e19942e55114153fdb8.shtml

Land Area	1,736 square kilometers
Population	2.48 million
GDP	RMB 404.5 billion
Per-capita GDP	RMB 164,000
Total merchandise trade	RMB 305.3 billion

Source: Zhuhai Statisitcs Bureau, 2022 data

Economic overview

- Industrial investment grew at a brisk pace and the consumer market has rebounded. In Q1 2023, Zhuhai's GDP was RMB96.8 billion, a growth of 4.1% YoY. Industrial investment reached a growth rate of 67.1% YoY 53, ranking first amongst the nine Pearl River Delta cities. During the same period, the total retail sales of consumer goods reached RMB26.2 billion, a growth of 4.4%. Duty free goods sales volume experienced an exceptional growth. The sales volume in Februrary grew 112% YoY 54.
- Foreign trade experienced weak momentum due to the soft demand both domestically and abroad. In Q1 2023, Zhuhai's total foreign trade import and export volume was RMB63.3 billion, which saw a 15.4% YoY decline. Being the major city for high tech development, Zhuhai should enhance its foreign trade and innovations as the growth driver, seize the opportunities for development arising from the Guangdong-Macao In-Depth Cooperation Zone in Hengqin, and promote the optimization and integration of production chains in the GBA platform. Transforming the development mode of foreign trade and making benefits of policies relevant to high-tech products would be the key to Zhuhai's next step.

Industry analysis and outlook

- Within the four pillar industries, new energy has developed relatively better. In Q1 2023, Zhuhai's "4+3" industrial cluster⁵⁵ realized a value added of RMB28.2 billion, a growth of 10.7% YoY, accounting for 77.3% of the value added for enterprises above designated size. New energy, smart home appliances, biopharmaceuticals and health, integrated circuit, and high-end device manufacturing had a value added growth of 38.3%, 17.9%, 13.6%, 9.4% and 7.7% YoY respectively⁵⁶. With the most established and unique production chains, Zhuhai will seize the window of opportunity for industry development, with special attention on projects covering cutting-edge production of lithium battery materials, photovoltaic batteries and photovoltaic components. Zhuhai will strive to create the conditions for a new energy industry cluster with a scale of RMB500 billion within three years.
- Henggin continues to be the impetus for innovation in the GBA and its synergistic development. As construction for the Guangdong-Macao In-Depth Cooperation Zone in Henggin speeds up, the number of enterprises registered in the zone has grown 5.9% YoY in 2022. The four key industries in the zone (technology research and development and highend manufacturing; Chinese medicine and Macau industries; culture, tourism, convention and exhibition and trade; and modern finance) have contributed to a growth of 9.1% YoY in tax income, accounting for 34.3% of the total tax income⁵⁷. The new technology industry, especially the integrated circuit industry, has developed rapidly in the past year. As favorable policies continue to be implemented and innovative systems and institutions are established, the Henggin cooperation zone will speed up the formation of open systems and business environments. Nurturing pioneering and innovative projects and enterprises would be the key agenda, and meanwhile, Zhuhai should better engage and collaborate with Macau to promote diverse industry development and power the GBA growth further.

⁵³ The People's Government of Guangdong Province, http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4172632.html

⁵⁴ East Money, https://finance.eastmoney.com/a/202305242732605561.html

⁵⁵ Zhuhai's "4+3" industrial clusters are: the four key industries of new generation information technology, new energy, integrated circuit, biopharmaceutical and health; plus the three industries with comparative advantage, smart home appliances, device manufacturing and fine chemicals.

⁵⁶ Zhuhai Statistics Bureau, http://www.gd.gov.cn/zwgk/sjfb/dssj/content/post_4172632.html

⁵⁷ Guangdong Provincial Tax Service of the State Taxation Administration, https://guangdong.chinatax.gov.cn/hqgkml/mltpxw/2023-01/23/content_ba2234dcfbbb4e19942e55114153fdb8.shtml

○ 江门 – 大湾区西岸交通枢纽、华人华侨交流平台

Jiangmen – The transportation hub on the GBA's west bank; platform to facilitate overseas Chinese investment

面积	9,535平方公里
人口	482万
地区生产总值 (GDP)	3,773亿元人民币
人均GDP	7.8万元人民币
商务贸易总额(货物)	1,773亿元人民币

数据来源: 江门市统计局, 2022年数据

经济概览

- ▶ 经济稳步复苏,多项指标增速排珠三角前列: 2023年 一季度,江门GDP达人民币858亿元,同比增长 4.2%58,高于全省平均水平0.2个百分点。工业投资 占全部投资比重52.8%,为5年来最高水平。
- ▶ 消费提速,RCEP促"侨都"外贸高质量发展: 2023年 一季度,江门实现社会消费品零售总额人民币314亿元,同比增长3.0%。RCEP的生效实施,为江门外贸企业带来巨大发展机会。2022年,江门对RCEP贸易伙伴进出口额人民币394亿元,增长6%,占同期江门市进出口总值的22%5°。为进一步拥抱RCEP,江门正深入推进"侨都赋能"工程,打造国内国际双循环重要交汇点。

产业结构及未来展望

▶ 四大支柱产业产值整体呈增长态势,金属制品产业贡献最大:2022年,江门四大支柱产业⁶⁰产值人民币2,493亿元,同比增长1.5%⁶¹。其中,金属制品产业产值增速加快,2017-2022年年复合增速7%,占规模以上工业总产值比达到12.44%。近年来,江门的金属制品行业不仅在国内市场上取得显著成绩,并

开始向国际市场拓展。通过加强与相关国家和地区的贸易往来,江门金属制品行业已经成为珠三角地区甚至全国性的重要产业之一,逐渐发挥着引领和支撑经济发展的作用。

▶ 战略性新兴产业⁶²打造新的经济增长点:进入"十四五",江门推动先进制造业加快崛起,加快发展战略性产业集群,数字化升级和绿色转型是企业高质量发展的必然趋势。展望2025年,江门战略性新兴产业增加值占GDP比重将超过5%⁶³;新一代信息技术和新材料产业均超过人民币400亿元,高端装备和新能源产业均超过人民币150亿元,七大新兴产业总产值均超过人民币1,330亿元。

⁵⁸ 江门市统计局,http://www.jiangmen.gov.cn/bmpd/jmstjj/tjsj/tjyb/jjyxjx/content/post_2847987.html

⁵⁹ 江门市统计局,http://www.jiangmen.gov.cn/newzwgk/sjfb/tjgb/content/post_2852831.html

⁶⁰ 江门四大支柱产业: 金属制品、农副产品加工和食品制造、电气机械与器材制造业、计算机、通信和其他电子设备制造产业

⁶¹ 江门市统计局,http://www.jiangmen.gov.cn/newzwgk/sjfb/tjgb/content/post_2852831.html

⁶² 江门七大战略性新兴产业: 生物产业、节能环保、新能源汽车产业、新材料、高端装备、新能源、新一代信息技术产业

⁶³ 江门市政府,http://www.jiangmen.gov.cn/jmfgj/gkmlpt/content/2/2643/post_2643022.html#6310

Land Area	9,535 square kilometers
Population	4.82 million
GDP	RMB 377.3 billion
Per-capita GDP	RMB 78,000
Total merchandise trade	RMB 177.3 billion

Source: Jiangmen Statisitcs Bureau, 2022 data

Economic overview

- Jiangmen has experienced steady economic recovery. Growth rate of a number of economic indicators came up to top ranks in the Pearl River Delta. In Q1 2023, Jiangmen's GDP was RMB85.8 billion, a growth of 4.2% YoY⁵8, 0.2% above the provincial average. Industrial investment accounted for 52.8% of the total investment during the same period, seeing the highest level in five years.
- Consumption has accelerated, and the RCEP has facilitated high-quality foreign trade. In Q1 2023, Jiangmen's total retail sales of consumer goods reached RMB31.4 billion, a growth of 3.0% YoY. The RCEP's implementation has brought forth great opportunities for the development of Jiangmen's trade enterprises. In 2022, Jiangmen's import and export volume with RCEP trade partners was RMB39.4 billion, a growth of 6% YoY, accounting for 22% of Jiangmen's total foreign trade volume⁵⁹. In order to fully embrace the opportunities of RCEP, Jiangmen is promoting a platform, namely the "Overseas Chinese Empowerment", for cultural exchange and cooperation for overseas Chinese, and building an important intersection to drive the "dual circulation" development strategy.

Industry analysis and outlook

- Production volume for the four pillar industries has shown an uptrend, with the metal product industry making the most contribution. In 2022, the total production volume of the four pillar industries of Jiangmen⁶⁰ has reached RMB249.3 billion, a growth of 1.5% YoY⁶¹. Among which, metal product industry saw the highest increase, with a compound growth rate of 7% during 2017-2022, contributing 12.44% of the total production volume for enterprises above the designated size. In recent years, the metal product industry of Jiangmen not only made great strides in China's domestic market, but also extended its presence internationally. By strengthening trade exchange with relevant countries and regions, Jiangmen's metal product industry has become one of the most important sectors in the Pearl River Delta, as well as nationally, and played a critical role in leading and supporting the economic development.
- Strategic emerging industries⁶² are the new growth drivers in the economy. During the 14th Five-year period, Jiangmen will accelerate the development of advanced manufacturing, boost the development of strategic industrial clusters, promote digitalization and foster green transition. Looking ahead to 2025, the strategic emerging industries of Jiangmen will exceed more than 5% of the value added to GDP⁶³. Newgeneration information technology and new material industries will exceed RMB40 billion, high-end devices and new energy industries will exceed RMB15 billion, and the seven emerging industries will have a total production volume exceeding RMB133 billion.

 $[\]textbf{58 Jiangmen Statistics Bureau}, \\ \texttt{http://www.jiangmen.gov.cn/bmpd/jmstjj/tjsj/tjyb/jjyxjx/content/post_2847987.html} \\ \textbf{100} \\ \textbf{10$

⁵⁹ Jiangmen Statistics Bureau, http://www.jiangmen.gov.cn/newzwgk/sjfb/tjgb/content/post_2852831.html

⁶⁰ The four pillar industries of Jiangmen: metal product manufacturing, subsidiary agricultural products and food production, electric machinery and equipment manufacturing, computer, communications and other electronic device manufacturing.

⁶¹ Jiangmen Statistics Bureau, http://www.jiangmen.gov.cn/newzwgk/sjfb/tjgb/content/post_2852831.html

⁶² The seven strategic emerging industries of Jiangmen: manufacturing industries, energy saving environmental industries, new energy automotive, new materials, high end devices, new energy, new generation information technology.

○ 中山 – 高新技术产业中心Zhongshan – The high tech industrial center

面积	1,784平方公里
人口	443万
地区生产总值 (GDP)	3,631亿元人民币
人均GDP	8.2万元人民币
商务贸易总额(货物)	2,799亿元人民币

数据来源:中山市统计局,2022年数据

经济概览

- ▶ 新动能快速成长,消费市场仍需提振: 2023年一季度,中山GDP达人民币858亿元,同比增长5.9%。 高技术制造业增加值增长8.8%,占规模以上工业的 比重为16.3%⁶⁴,新动能快速成长。1-3月,社会消 费品零售总额同比增长2.7%。住宿和餐饮业增加值 略高于2019年一季度,接触型服务业的复苏势头仍 待加快。
- ▶ 进出口持续承压,亟需优化外贸结构: 2023年一季度,中山进出口总额人民币585.1亿元,同比下降 18.6% 。从外贸结构看,中山现在主要出口产品仍为"传统产品",高技术高附加值产品出口较少,亟 需优化外贸结构,培育外贸新动能。

产业结构及未来展望

▶ 拓展高端装备产业规模,推动相关产业链升级: 高端装备制造业是中山市四大支柱产业中增加值规模最大的一极。2019-2021年,中山高端装备制造业增加值逐年增长,年增速高达20%以上66。在产业协同、交通接轨等方面,中山将依托火炬开发区、翠亨新区,加速打造"东承"枢纽,推动深中一体化深度融合发展。重点对标发展深圳超高清视频显示、智能机器人、智能传感器、工业母机、激光与增材制造等5个战略性新兴产业,进一步拓展当地装备制造业发展规模。

- ▶ 打造万亿级"智能家电"产业群:中山家电产业在大湾区占据相当重要的位置。截至2023年2月,全市家电产业相关的注册企业超7,800家,产值超亿元以上企业172家⁶⁷。未来,中山将依托北部家电产业集群,加强与佛山产业链协作,重点发展智能空调、智能冰箱、智能电视等智能产品,以及"智能家电"上游芯片、移动智能终端芯片等智能终端芯片。
- ▶ 加快新一代电子信息产业发展主引擎: 2022年,中 山高端电子信息制造业增长6.1%⁶⁸。依托半导体产业 园建设,中山将更好地对接国家、区域发展战略需 求,加快发展新一代通信网络、高性能集成电路、 新型显示、先进材料及器件、物联网等产业,实现 相关产业链、人才链、创新链深度融合。
- 布局生物医药与健康产业,深挖蓝海产业:近年来,中山生物企业的研发投入持续增强,上市企业研发投入领先于大湾区其他城市。未来,依托火炬开发区国家健康基地、翠亨新区生物医药科技园、南朗镇华南现代中医药城三个基地,中山生物医药及健康产业将形成更大集群效应,吸引资本和高端人才加入,形成国内具有较强竞争力的生物医药产业聚集高地。

⁶⁴ 中山市统计局,http://stats.zs.gov.cn/zwgk/tjxx/tjzl/content/post_2268827.html

⁶⁵ 中山市海关,http://www.customs.gov.cn//gongbei_customs/374280/fdzdgknr19/374301/374302/4969393/index.html

⁶⁶ 前瞻产业研究院,https://mp.weixin.qq.com/s/t2QLZydVZGS90IQTB3Jm-w

⁶⁷ 前瞻产业研究院,https://mp.weixin.qq.com/s/KJ76bV9xiDbT8enbamV9_w

⁶⁸ 前瞻产业研究院,https://mp.weixin.qq.com/s/t2QLZydVZGS90IQTB3Jm-w

Land Area	1,784 square kilometers
Population	4.43 million
GDP	RMB 363.1 billion
Per-capita GDP	RMB 82,000
Total merchandise trade	RMB 279.9 billion

Source: Zhongshan Statisitcs Bureau, 2022 data

Economic overview

- New driving forces saw rapid growth, while consumption still awaits further stimulus. In Q1 2023, Zhongshan's GDP was RMB85.8 billion, a growth of 5.9% YoY. The value added of the high-tech manufacturing grew 8.8% YoY, accounting for 16.3%⁶⁴ of the total volume for enterprises above the designated size. There is a rapid development of new economic growth drivers. From January to March, the total retail sales of consumer goods grew 2.7% YoY. The value added for the hospitality, food and beverages industries was slightly higher than the levels of Q1 2019. Recovery of in-person consumption remains somewhat modest.
- Import and export remain under pressure, there is a great need for optimization of foreign trade structure. In Q1 2023, the total import and export volume in Zhongshan was RMB58.51 billion, a decline of 18.6% YoY⁶⁵. In terms of its foreign trade structure, Zhongshan's exported goods are still dominated by the "traditional products", with few high-tech, high value-added goods for export. Structure optimization and new forces driving are crucial for the next step's foreign trade reform.

Industry analysis and outlook

▶ Expand the industrial scale of the high-end device industry, and promote the upgrade of relevant production chain. Of the four pillar industries in Zhongshan, high-end device manufacturing has the highest value added. In 2019-2021, the high-end device industry of Zhongshan experienced consistent growth, with the annual rate of above 20% per year⁶⁶. In terms of industrial synergies and transportation connectivity, Zhongshan will speed up the development of the Zhongshan Torch High Tech Industry Development Zone and Cuiheng New District, which will be the key bases for the "eastern transport hub", and encourage

deepened cooperation for integrated development. Efforts will be focused on the development of the five strategic emerging industries of UHD display devices, intelligent robots, smart sensors, industrial mother machines and laser additive manufacturing technology. The device manufacturing industry will continue to expand its production scale.

- Zhongshan is on its way to making a trillion-yuan smart home appliance industry cluster. Zhongshan's home appliance industry is very important in the GBA. As of February 2023, there were 7,800 registered enterprises in this industry in Zhongshan, amongst which 172 had a production volume of over RMB100 million⁶⁷. In the future, Zhongshan will take its home appliance industry cluster in the north as the basis for enhancing cooperation with the production chains in Foshan. Efforts will be focused on smart air conditioner, smart refrigerator and smart TV, etc., as well as the chip-making for home appliances at the upstream, the terminal chips for smart user equipment and smart terminal chips.
- Speed up the main engine of development for new generation electronic information. In 2022, Zhongshan's electronic information industry grew 6.1% YoY⁶⁸. With the establishment of semiconductor industrial campuses, Zhongshan will be better positioned to meet the strategic demands of regional and national development. Development will be accelerated for new generation communication network, high functionality integrated circuit, new display, advanced material and components, and logistics industries, with the aim of integrating the relevant industrial chains, talent chains and innovation chains.
- and health industries, and thoroughly explore blue ocean opportunities. In recent years, Zhongshan has stepped up investments in its biopharmaceutical enterprises. In terms of resource input for research and development by publicly listed enterprises, Zhongshan leads the other cities in the GBA. In the future, the Zhongshan Torch High Tech Industry Development Zone, Cuiheng New District Biopharmaceutical Technology Park and Nanlang South China Medicine Park will engender great cluster effects for Zhongshan's biopharmaceutical and health industries, and develop the city into a competitive node for biopharmaceutical industries by attracting capital and high-end talent.

⁶⁴ Zhongshan Statistics Bureau, http://stats.zs.gov.cn/zwgk/tjxx/tjzl/content/post_2268827.html

 $[\]textbf{65 Zhongshan Customs}, \\ \textbf{http://www.customs.gov.cn//gongbei_customs/374280/fdzdgknr19/374301/374302/4969393/index.html} \\ \textbf{100 State Stat$

⁶⁶ Forward Research Institute, https://mp.weixin.qq.com/s/t2QLZydVZGS90IQTB3Jm-w

⁶⁷ Forward Research Institute, https://mp.weixin.qq.com/s/KJ76bV9xiDbT8enbamV9_w

⁶⁸ Forward Research Institute, https://mp.weixin.qq.com/s/t2QLZydVZGS90IQTB3Jm-w

○ 肇庆 - 湾区连接大西南枢纽门户城市、高新技术产业开发区 Zhaoqing - The guardian city for the GBA's southwestern transport hub and the development zone for high tech industries

面积	14,891平方公里
人口	413万
地区生产总值 (GDP)	2,705亿元人民币
人均GDP	6.6万元人民币
商务贸易总额(货物)	386亿元人民币

数据来源:肇庆市统计局,2022年数据

经济概览

- ▶ 稳中有进,制造业企稳向好: 2023年一季度,肇庆 GDP达人民币555亿元、同比增长4.0%。全市工业 投资增长25.3%,其中,先进制造业投资同比增长 27.7%⁶⁹。
- ▶ 基础设施持续发力,消费服务业回暖: 2023年一季度,肇庆基础设施投资增长15.7%,拉动全市固定资产投资增长4个百分点。能源项目建设大踏步前进,全市能源行业投资增长136.1%。社会消费品总额增速转正,达人民币300亿元,同比增长0.2%。线下消费(餐饮需求)复苏明显。

产业结构及未来展望

▶ 新能源汽车、新型储能产业打造肇庆产业"新引擎": 2023年一季度,肇庆规模以上新能源汽车企业89家, 实现工业产值人民币177亿元,同比增长14.16%⁷⁰。 随着头部新能源车企的落户,肇庆成为国内少有的、 同时拥有整车制造和动力电池生产基地的城市,标志着肇庆新能源汽车产业进入双龙头带动时代。在新型储能产业方面,肇庆拥有丰富的光能、风能,且是"西电东送"的重要通道,具备发展绿色能源的基础和条件。"十四五"时期,肇庆谋划投资人民币1,000亿元建设164个绿色能源项目⁷¹。同时,肇庆还将新型储能产业纳入"主导+特色"产业体系,从政策引导、市场主导、科技创新等方面精准发力,加快延伸产业链条,构建完整产业生态。

加快区域生态建设,推进绿色产业可持续发展: 肇庆是大湾区的农业大市,2022年总产实现人民币 760亿元,同比增长4.5%⁷²。建设"湾区生态粮仓", 做好农业规模化、标准化、绿色化发展是肇庆实现 高质量发展之根。另外,肇庆也将瞄准广州、深圳 等大湾区核心城市目标人群,打造湾区休闲康养旅游目的地。

⁶⁹ 肇庆市统计局,http://www.zhaoqing.gov.cn/zqtjj/gkmlpt/content/2/2840/mpost_2840043.html?eqid=8e8b1d07000211b200000006646b12e4#4473

⁷⁰ 南方日报,https://baijiahao.baidu.com/s?id=1766825931904044503&wfr=spider&for=pc

⁷¹ 深圳商报, https://baijiahao.baidu.com/s?id=1741403762454427445&wfr=spider&for=pc

⁷² 广东省政府,http://www.gd.gov.cn/gdywdt/zwzt/bxqzwc/gdxd/content/post_4135093.html

Land Area	14,891 square kilometers
Population	4.13 million
GDP	RMB 270.5 billion
Per-capita GDP	RMB 66,000
Total merchandise trade	RMB 38.6 billion

Source: Zhaoqing Statisitcs Bureau, 2022 data

Economic overview

- ► Economic growth was steady with the manufacturing industry showing positive momentum. Zhaoqing's GDP in Q1 2023 was RMB55.5 billion, a growth of 4% YoY. City-wide industrial investment grew 25.3% YoY, among which the advanced manufacturing industry saw a 27.7% growth YoY⁶⁹.
- Infrastructure investments have been accelerated, and consumption service picked up. In Q1 2023, infrastructure investment in Zhaoqing grew 15.7% YoY, driving a growth of 4.0% of the city's overall fixed asset investment. Energy projects made a great leap forward, with investment growing 136.1% YoY. The total retail sales of consumer goods quickly turned positive, registering RMB30 billion, a 0.2% growth YoY. Offline consumption (demand for food and dining) has shown a clear recovery.

Industry analysis and outlook

NEV, new energy storage industries are the "new engines of development" for Zhaoqing's industries. In Q1 2023, there were 89 energy enterprises above the designated size in Zhaoqing. Together they realized an industrial production volume of RMB17.7 billion, a growth of 14.16% YoY⁷⁰. As leading new energy automotive enterprises set foot in Zhaoqing, the city has become one of the few locations in the nation that hosts both full-body production of automotive and battery-making enterprises. This indicates that Zhaoqing's new energy automotive industry has

entered a mode of development led by two leading industries at the same time. For new energy storage, Zhaoqing is rich in solar and wind power. It is also a key conduit for electricity transmission from the west to the east. This provides the foundation and conditions for green energy development. In the 14th Five-year Plan, Zhaoqing has planned to invest RMB100 billion toconstruct 164 green energy projects⁷¹. At the same time, Zhaoqing has also included the new energy storage industry as a "leading+special" industry category. Guidedby policies, market forces and innovations, Zhaoqing will extend significant effort in speeding up the establishment of the full production chain and create an integral industrial ecosystem.

Speed up the establishment of a regional ecosystem and promote sustainable development of green industries. Zhaoqing is a major agricultural city in the GBA with a total production volume of RMB76 billion in 2022, a growth of 4.5% YoY⁷². With its natural endowments, Zhaoqing will position itself as the GBA's "eco granary", with high-quality development in scale, standardization and green agriculture. On the other hand, Zhaoqing will also identify business potential in the core cities of the GBA, such as Guangzhou and Shenzhen, and develop a profile as a leisure, health, wellbeing and tourism destination.

⁶⁹ Zhaoqing Statistics Bureau, http://www.zhaoqing.gov.cn/zqtjj/gkmlpt/content/2/2840/mpost_2840043. html?eqid=8e8b1d07000211b200000006646b12e4#44

⁷⁰ Nanfang Daily, https://baijiahao.baidu.com/s?id=1766825931904044503&wfr=spider&for=pc

⁷² The People's Government of Guangdong Province, http://www.gd.gov.cn/gdywdt/zwzt/bxqzwc/gdxd/content/post_4135093.html



金融及货币通 Financial and Currency Connect

深圳与香港山水毗邻,深港金融市场相生相通,香港作为国际金融中心,汇聚众多国际化金融机构,在法律环境、监管制度、市场体系、专业人才等方面均有雄厚的实力,具有金融服务的国际化和制度优势,而深圳具有完整的制造业产业链、丰富的金融领军企业、活跃的创新生态,深港在金融领域融合发展,合作互补,对大湾区建设意义重大。

自中国人民银行等四部委《关于金融支持粤港澳大湾区建设的意见》全面落地以来,两地金融合作从早期的机构互设、人才互动,逐步向金融机制衔接、市场对接、业务融合、监管合作等深层次合作迈进。



深港金融业的市场现状

香港作为国际金融中心,拥有完善的金融市场体系和健全的法律制度、符合国际标准的监管、简单和具竞争力的税制、可自由进出的资金、一应俱全的金融产品,为众多国际金融服务机构在亚太区的总部及首选地点。另外,香港人民币业务发达,为全球最庞大的离岸人民币资金池及离岸人民币结算中心。各金融服务行业可受惠于国家发展大局以及香港独特优势,在国家全面深化改革对外开放、人民币国际化的进程中,为建设国家的金融事业作出贡献、巩固香港国际金融中心地位。

金融业是深圳的重要支柱产业,《深圳市金融业高质量发展"十四五"规划》提出完善金融政策和支持体系,增强服务实体经济能力、防控金融风险、深化金融改革、提升金融科技水平、健全金融科技生态目标。总体而言,深圳在多个金融领域主要指标均居全国前列,金融服务实体经济功能不断增强,金融科技发展处于领先地位。



银行业

香港具有稳健和高效率的银行体系,能够 提供多元化的产品和服务。

截至2021年底,香港银行业资产总额约3.38万亿美元,自2000年以来增长4倍,拥有近200家认可机构,涵盖全球前100大银行中的四分之三。

人民币业务中,人民币存款(包括存款证)9,450亿元人民币,是全球最庞大的 离岸人民币资金池;人民币贷款和债券 3,950亿元人民币,提供全方位的人民币服务和产品。

截至2022年底,深圳银行业资产总额为 12.2万亿人民币,总资产、存贷款规模均 居全国大中城市第三位⁷⁴。

证券业

香港是全球最活跃及流动性最高的证券 市场之一,亦是全球最大的股票集资中心 之一。

2021年,香港股票市场总资产5.43万亿 美元,自2000年以来增长8.7倍,在过去 12年中,有7年在新股集资方面名列全球 第一。

债券市场中,2021年亚洲区国际债券发行额2,070亿美元,连续六年成为全球安排亚洲区国际债券发行最具规模的中心。

截至2022年底,深圳证券交易所的上市公司2,743家,上市公司股票总市值32.42万亿元人民币,其中,主要为创业型和高新技术企业提供融资渠道的创业板股票总市值11.27万亿元人民币。

2022年全年,深圳22家证券公司实现营业收入997.5亿元人民币,净利润388.9亿元人民币,均居全国第一。

资产管理业

香港是亚洲最大的国际资产管理中心,亦 是亚洲最大的跨境私人财富管理中心、对 冲基金中心及第二大私募基金中心(仅次 于中国内地)。

资产管理行业所管理的资产规模约4.56万亿美元,自2000年以来增长24倍。

中国约65%的外商直接投资及对外直接投资均经由香港进行。

截至2023年5月底,注册地址为深圳的公募基金管理公司共有31家,基金子公司20家,深圳辖区基金公司管理公募基金规模6.63万亿元人民币,专户产品规模3.57万亿元人民币75。截至2022年底,深圳私募基金管理人3,871家,管理规模近2.20万亿元人民币,均居全国第三76。

保险业

建设香港成为世界领先的国际金融中心方面,香港保险业发挥着重要作用。2022年香港保险业毛保费总额达5,560亿港元,其中,长期有效业务的保费收入4,914亿港元⁷⁷。

截至2022年底,深圳保险法人机构总资产 6.4万亿元,居全国第二,全年辖区保险市 场实现保费收入1,527.7亿元人民币。

⁷³ 香港金融管理局 https://www.hkma.gov.hk/gb_chi/key-functions/international-financial-centre/hong-kong-as-an-international-financial-centre/

⁷⁴ 深圳市地方金融监督管理局 http://www.sz.gov.cn/szzt2010/sjfb/sjjd/content/post_10520141.html

⁷⁵ 深圳证监局《证券期货机构监管通讯(2023第2期)》

⁷⁶ 中国证券投资基金业协会《2022年12月私募基金管理人登记及产品备案月报》

⁷⁷ 香港保险业监管局《保险业监管局公布2022年香港保险业临时统计数字》

深港金融及货币领域互联互通

香港和深圳同为粤港澳大湾区发展引擎,可继续发挥独有优势,加深两地互补共赢的合作关系,推动两地在金融科技、跨境金融、跨境投融资、金融监管等领域开展更深更广的合作,为建设大湾区和深化国家金融市场改革作出贡献。

▶ 金融科技

香港完善、成熟及国际化的金融市场与监管体制,与深圳高端、创新及完整的科技产业链可形成优势互补,构建大湾区金融科技的全球领先优势,携手推进金融科技前沿技术发展。目前,两地在金融科技领域已进行如下实践:

数字人民币 (e-CNY)

香港金融管理局正与中国人民银行合作,在香港进行数字人民币作为跨境支付工具的测试,旨在为香港和大陆居民提供便捷的跨境支付服务,提升服务效率和用户体验。深圳亦在积极构建数字人民币应用生态,不断探索数字人民币在港深地区的应用,拓展数字人民币深港消费先行示范应用场景,并将不断深化落实,以作广泛应用,解决跨境支付长期存在的环节多、成本高、速度慢等痛点,大大提升大湾区企业跨境资金流动的效率。

另外,香港金融管理局、中国人民银行数字货币研究所合作、国际清算银行和另外两家海外央行正在共同参与一个跨境央行数字货币项目mBridge。该项目目前已经通过真实交易,证明其可行性和实用性。银行间市场清算所股份有限公司大宗商品现货清算业务也已于2023年6月26日正式上线数字人民币清结算服务。

根据中国人民银行披露,2022年12月末全国流通中数字人民币余额为136.1亿元⁷⁸。深圳作为第一批试点城市,截至2022年末,数字人民币累计交易金额376.85亿元。数字人民币在提振消费、服务实体经济、资金监管等方面发挥作用。2023年2月22日,全国首台数字人民币硬钱包自助发卡机正式启用,为来深港人提供安全高效便捷的数字人民币支付服务;

136.1 亿元

全国流通中数字人民币 (截至2022年末)

376.85 亿元

深圳市数字人民币累计交易

数码港元 (e-HKD)

香港金融管理局正在采取三阶段(奠定基础、业界试行及持续提升、全面推出部署)的方式为未来将推出的香港央行数字货币——数码港元做准备,以实现香港成为一个无现金城市的目标,进一步推动香港数字经济的创新。2023年5月18日,香港金融管理局宣布正式启动数码港元先导计划,先导计划是第二阶段的重要组成部分,通过深入研究数码港元在全面支付、可编程支付、离线支付等六个领域的潜在应用案例,为全面推出数码港元做好铺垫。

数字人民币已推出数年,现时香港市民或可通过"转数快"与人民币实现互换,将来的数码港元与数字人民币的联系必将加深,并在跨境使用、电子钱包充值、离线支付等方面与数字人民币形成多种形式的连接。

跨境金融创新激励

为促进深港金融深化合作,服务粤港澳大湾区战略,深圳市地方金融监督管理局在《深圳市金融创新奖评选办法》的贡献奖名额中单独划出6个名额,由香港金融管理局审核,专门用于奖励深港两地在完善深港跨境金融基础设施、拓展深港跨境投融资渠道、促进深港金融市场互联互通,以及合作设立新型机构等方面开展的优秀创新项目,对深港跨境金融创新合作起到鼓励和促进作用。过往年度,有中国银行深圳分行的中银"深港跨境通"创新金融服务体系、博时基金的跨境(境外)回购投资交易支持系统等推动深港同城便利、跨境结算顺畅等项目获得该殊荣。

> 跨境金融

作为两地金融市场开放的重大里程碑,跨境理财通、深港通与债券通等境内外互联互通举措不断优化升级,大幅增加了大湾区金融市场的整体竞争力。

跨境理财通

2021年9月10日,粵港澳三地同时发布 《粤港澳大湾区"跨境理财通"业务试点实施细则》, "跨境理财通"业务试点支持粤港澳大湾区内地及港 澳居民个人跨境投资对方银行销售的合资格投资产 品。"跨境理财通"业务试点的推出,为大湾区居民提 供更多理财产品,进一步促进人民币跨境流通和使 用,个人投资便利化和跨境人民币资金双向流动得到 加强,并为三地金融业开辟更广阔的市场。

2021年9月 《粤港澳大湾区"跨境理财通"业务试点实施细则》

2021年2月 《关于在粤港澳大湾区开展"跨境理财通"业务试点的谅解备忘录》

2020年6月 《中国人民银行香港金融管理局澳门金融管理局关于在粤港澳大湾区开展"跨境理财通"业务试点的联合公告》

"跨境理财通"业务试行至今已近两年,根据中国人民银行发布的数据显示,截至2023年5月末,粤港澳大湾区内地九市已报备32家试点银行,其中,深圳辖内共有25家银行获得试点资格,参与"跨境理财通"的个人投资者5.30万人,其中,港澳投资者3.95万人,涉及资金跨境汇划金额39.51亿元人民币⁷⁹,显示投资者对市场未来抱有信心,也反映出"跨境理财通"进一步深化粤港澳大湾区在金融领域监管、产品、服务、系统等方面的融合。



深港通

自2016年12月深港通开通以来,为更好地适应两地市场发展水平,促进两地资本市场共同发展,深港通标的范围持续扩大,港交所上市不同投票权架构(WVR)公司、生物科技公司、科创板A+H股对应的H股公司陆续被纳入港股通标的,两地交易所符合条

2016年9月、 2018年9月、 2019年10月、 《深圳证券交易所深港通业务 2020年3月、 实施办法》(修订) 2021年1月、 2022年6月、 2023年3月 2016年12月 《关于深港股票市场交易互联 互通机制试点有关税收政策的 通知》 《内地与香港股票市场交易互联 2016年9月 互通机制若干规定》 2016年8月 《深港通实施方案》

件的交易型开放式基金(ETF)产品也被纳入互联互通机制。2023年3月3日,深圳证券交易所对《深圳证券交易所深港通业务实施办法》进行修订,在现行股票标的基础上,将恒生综合指数内符合有关条件的在港主要上市外国公司和更多深市上市公司股票纳入标的范围。2023年7月,据上海证券报报道,两地监管机构正在研究推动REITs市场的互联互通,助力两地REITs市场实现高水平双向开放。

深圳证券交易所统计数据显示,自开通当年至2022年底,深股通累计交易金额47.26万亿元人民币,港股通累计交易金额13.48万亿元港元。深股通日均交易金额由开通首月的15.41亿元人民币提升至2023年6月的624.61亿元人民币,增幅39.53倍,港股通日均交易金额由开通首月的5.09亿元港元提升至2023年6月的135.86亿元港元,增幅25.69倍80。整体而言,深港通投资交易行为较为活跃。





跨境投融资

深圳作为国内同时具有并较早开展QFLP、QDIE 两项试点的少数地区之一,经过多年的稳定发展,已形成一批具有特色优势和标杆效应的外商投资企业,对于吸引具有国际影响力的外商企业特别是港资企业来深集聚、支持深圳市经济社会发展发挥重要作用。



在《关于金融支持粤港澳大湾区建设的意见》⁸¹基础上,2021年,深圳市地方金融监督管理局会同国家外汇管理局深圳市分局等相关部门,对深圳QFLP、QDIE试点政策进行优化修订,全面升级QFLP、QDIE试点政策。截至2022年6月末,深圳已设立QFLP管理企业177家,发起QFLP基金55家,基金规模76亿美元,主要投向生物医药、高端制造、大消费、信息技术、新材料等前沿领域,助力产业新一轮升级,设立QDIE管理企业71家,已备案额度20.15亿美元⁸²。

投资企业试点办法》

"金融支持前海30条"发布以来,深圳积极推动政策落实,跨境金融改革迈出新步伐。外汇局深圳市分局已会同市地方金融监管局、前海地方金融监管局等部门,开展QFLP法规修订。目前,修订工作已在意见反馈阶段,有望于近期落地。

⁸⁰ 深圳证券交易所《深港通交易信息》

⁸¹ https://research.hktdc.com/en/article/NDMyMjl3MDYx

⁸² 中国人民银行深圳市中心支行《深圳"跨境理财通"跨境汇划金额超4亿QFLP基金规模达76亿美元》



▶ 金融监管合作

粤港澳深四地保险监管联席会议机制

深圳银保监局在银保监会授权下,与广东银保监局及香港、澳门保险监管部门建立粤港澳深四地保险监管联席会议机制,目前已举办二十二届联席会议,成为交流探讨保险业发展与创新、四地保险业互联互通和加强监管协调合作的重要平台。

跨境上市监管合作

就2023年3月31日生效实施的《境内企业境外发行证券和上市管理试行办法》,中国证券监督管理委员会与香港证券及期货事务监察委员会签订监管合作备忘录,明确在发行上市、跨境执法合作、中介机构监管、信息交换等领域相关的监管合作安排和程序。中国证监会和香港证监会将履行各自监管职责,共同打击跨境违法违规行为,保护投资者合法权益,确保两地市场平稳健康发展。

在中国证监会指导下,深圳证监局与香港证监会积极开展人员培训交流,并通过中国证监会稽查局持续加强跨境监管合作,依法开展香港证监会请求事项的协助调查工作。

深港"金融及货币通"未来展望

2023年6月29日,深圳市人民政府办公厅印发《关于贯彻落实金融支持前海深港现代服务业合作区全面深化改革开放意见的实施方案》,提出六大方面共115条内容,对"金融支持前海30条"进行分解细化,提供详实的落地方案,并落实责任单位。根据实施方案,未来将以中国人民银行深圳市中心支行、深圳银保监局、深圳证监局及深圳市地方金融监管局等单位为政府主体,以前海合作区内各大金融机构为市场主体,由前海深港现代服务业合作区在深港跨境金融领域先试先行,成为国家金融业对外开放试验示范窗口和跨境人民币业务创新试验区,并推动香港融入国家金融改革开放新格局。

未来,为促进粤港澳大湾区融合发展,亟需借鉴国际先进经验,进一步关注跨境资金流相关的信息安全、税收等制度建设,进一步探索数字货币使用场景,进一步推动粤港澳金融市场和金融基础设施互联互通,并加强金融创新和高新科技成果应用相结合、加强深港金融风险防范的监管合作。

深港两地金融及货币通可谓优势互补、互利共赢,两地共同推动的多项相关政策稳步落地,引导驱动区域内资金、企业、人才良性互动、深度融合。目前,已经在金融科技、跨境金融包括跨境理财、跨境投融资等领域互联互通。下一步,两地金融合作将继续落实到金融基础设施一体化建设之上,并将继续推动配套法律制度和监管机制的建立,促进金融创新与高新科技成果应用相结合,进一步驱动区域内金融互联互通,从而提高资源配置效率,服务大湾区经济实现高质量发展。

As neighboring cities, Shenzhen and Hong Kong's financial markets can complement each other in the GBA's development. Hong Kong, as an international financial center, has a vast number of international financial institutions in the market. Hong Kong has tremendous strengths in its legal framework, regulatory system, market infrastructure, professional and financial talent, etc., which position Hong Kong very well with its internationalized financial services and financial system. Shenzhen has a well-developed manufacturing and production chain, together with the presence of leading financial enterprises and a thriving innovation ecosystem.

A successful leverage of the respective strengths and integration of the financial markets of the two cities are important driving forces for the GBA's development.

Since the implementation of the *Opinions on Financial Support for the Development of the Guangdong-Hong Kong-Macao Greater Bay Area* by the People's Bank of China and three other authorities, steady progress has been made in enhancing the financial cooperation between Shenzhen and Hong Kong, from the establishment of financial institutions and interaction of talent in the early stages, to the collaboration in the core aspects of the financial system, including the alignment of financial infrastructures, market connectivity, business integration and regulatory cooperation.



The current situation of the financial industries in Shenzhen and Hong Kong

Hong Kong's financial strengths are manifested in its well-developed financial markets, legal and regulatory frameworks at international standards, simple and competitive tax system, free flow of capital, and the full range of financial products. Many international financial institutions consider Hong Kong as the first choice of location for their Asia-Pacific headquarters. Furthermore, Hong Kong, with its thriving Renminbi (RMB) business, is the largest offshore RMB liquidity pool and offshore RMB clearing hub in the world. The financial industries in Hong Kong will benefit from continuous national developments in China and the unique role of Hong Kong in these developments. In turn, the financial industries will contribute and get involved in these developments by participating in the journey of China's deepening reform and opening up and the RMB internationalization. Hong Kong can further strengthen its position as an international financial center.

Financial industry is an important industry in Shenzhen. Shenzhen's 14th Five-Year Plan for the High-quality Development of the Financial Industry proposes the vision of improving financial policies and supporting the financial system, strengthening the capability to service the real economy, preventing financial risks, deepening financial reforms, and enhancing financial technology and the financial technology ecosystem. Shenzhen is ranked at the top among all cities in the Chinese mainland in many major financial indicators. Shenzhen's capability to service the real economy has a solid growth. Shenzhen is also the leading city in the Chinese mainland in respect of financial technology development.

Hong Kong⁷³ **Shenzhen** As of the end of 2022, the total value of bank Banking The banking system of Hong Kong is stable and efficient, able to offer a wide array of products assets in Shenzhen was RMB12.2 trillion. and services. In terms of total assets, deposits and loan volumes, Shenzhen ranked the third amongst As of the end of 2021, the total assets of Hong the medium and large cities in the Chinese Kong's banking industry was US\$3.38 trillion, mainland⁷⁴. which is four times from 2000. There are more than 200 authorized institutions in Hong Kong, including around three-quarters of the world's top 100 banks. In respect of Renminbi business, RMB savings in Hong Kong (including certificates of deposit) amount to RMB945 billion, being the largest offshore RMB liquidity pool in the world. RMBdenominated loans and bonds offering in Hong Kong worth RMB395 billion. A broad offering of RMB products and services is available in Hona Kona. **Securities** The securities market of Hong Kong is one of As of the end of 2022, there were 2,743 publicly the most vibrant and liquid markets in the world. listed enterprises on the Shenzhen Stock It is also one of the largest IPO fundraising Exchange with a total market capitalization of markets in the world. RMB32.42 trillion. The ChiNext index, with a total market capitalization of RMB11.27 trillion, In 2021, Hong Kong's stock market was set up with the aim of enabling capital capitalization was US\$5.43 trillion which is access for startups and high-tech enterprises. 8.7 times from 2000. Hong Kong is ranked Within the full year of 2022, the total revenue first in IPO fundraising in seven out of the last for 22 Shenzhen securities enterprises was 12 years. RMB99.75 billion, with a net profit of RMB38.89 In terms of bond market, Hong Kong is also billion, both of which were the highest in the ranked first for arranging Asian international nation. bond issuance for six consecutive years, with US\$207 billion in 2021. Asset Hong Kong is Asia's no. 1 international fund As of the end of May 2023, there were 31 management management hub, a premier international privately offered fund enterprises registered private wealth management center in Asia, a in Shenzhen and 20 fund management hedge fund management center and the second subsidiaries. The privately offered funds of the largest privately offered fund center in Asia fund management enterprises in the Shenzhen (second only to the Chinese mainland). jurisdiction were worth RMB6.63 trillion. Designated account products were worth Asset under management in Hong Kong was RMB3.57 trillion⁷⁵. As of the end of 2022, there US\$4.56 trillion, 24 times from 2000. Around were 3,871 privately offered fund management 65% of China's total foreign direct investments enterprises overseeing a total of nearly and outward direct investments was originated RMB2.2 trillion worth of funds. For both figures and intermediated via Hong Kong. Shenzhen came third in the nation 76 .

73 The Hong Kong Monetary Authority, https://www.hkma.gov.hk/gb_chi/key-functions/international-financial-centre/hong-kong-as-an-international-

The insurance industry has a significant

contribution to Hong Kong's position as an

market reached HK\$556 billion, including

HK\$491.4 billion from in-force long term

business⁷⁷.

international finance center. In 2022, the total aross premiums in the Hong Kong insurance

Insurance

billion.

As of the end of 2022, the legal insurance

entities in Shenzhen had a total asset of RMB6.4 trillion, coming up second in the nation. The full-

year premium income for the insurance industry

in the Shenzhen jurisdiction totaled RMB152.77

⁷⁴ Local Financial Regulatory Bureau of Shenzhen Municipality, http://www.sz.gov.cn/szzt2010/sjfb/sjjd/content/post_10520141.html

⁷⁵ The Shenzhen Office of the CSRC, Securities and Futures Institutions Regulation Newsletter (Issue 2, 2023)

⁷⁶ The Asset Management Association of China, Monthly Report on Privately Offered Fund Manager Registration and Product Catalogue

⁷⁷ The Insurance Authority, Insurance Authority releases provisional statistics of Hong Kong insurance industry in 2022

Financial and Currency Connect between Shenzhen and Hong Kong

Both Hong Kong and Shenzhen are the drivers of development in the GBA. The two cities can contribute their respective strengths, deepen the cooperation and complementation relationships, promote joint initiatives in financial technology, cross-border financing and investments, financial market regulations, etc., and contribute to the development of the GBA and China's continuous reform of its financial markets.

Financial Technology (Fintech)

With Hong Kong's full-fledged, mature and internationalized financial markets and legal and regulatory frameworks, along with Shenzhen's high-end, innovative and well-developed technology production chains, the two cities can complement each other to cultivate worldwide-leading advantages in the fintech industry for the GBA and jointly promote cutting-edge developments. Currently, the following fintech areas are being developed by the two cities:

e-CNY

The Hong Kong Monetary Authority (HKMA) has been cooperating with the People's Bank of China in piloting the use of e-CNY as a cross-border fiat for payment, with the aim of providing a convenient means of crossborder payments for the residents of Hong Kong and the Chinese mainland, enhancing the efficiency of the relevant services and user experience. Furthermore, Shenzhen has also been establishing the application of e-CNY in Hong Kong and Shenzhen, seeking to expand the application of e-CNY in different areas with demonstrations across the chain of consumer spending. The goal is to have e-CNY as a common payment means with wide application across the two cities. It will resolve the long-standing issues with cross-border payment, e.g., complicated process, high costs and inefficiency, and significantly improve the efficiency of cross-border payment and cross-border capital flow.

Furthermore, the HKMA also cooperated with the Digital Currency Institute of the People's Bank of China, the Bank for International Settlements and two other foreign central banks on a joint initiative for cross-border central bank digital currency project named mBridge. The initiative has already been tested with real-value payment and cross-border transactions, confirming its feasibility and practicality. The Shanghai Clearing House has officially launched the e-CNY clearing and settlement services for bulk commodity business on 26 June 2023.

According to the data of the People's Bank of China, the balance of e-CNY in circulation nationally was RMB13.61 billion as of the end of 2022⁷⁸. As one of the first batch pilot cities, Shenzhen's e-CNY transactions turnover was RMB37.685 billion as of the end of December 2022. The positive effects of e-CNY on boosting consumption, servicing the real economy and monitoring capital flow are well recognized. On 22 February 2023, the first automated e-CNY hard wallet card issuance machine was launched, which provides a safe, efficient and convenient means of e-CNY payment service to Hong Kong residents visiting Shenzhen.



e-HKD

The HKMA has adopted a three-rail approach (a plan for the technology and legal foundations, deep-dive user case and application with pilot runs, and implementation planning of launching e-HKD) in respect of the retail Central Bank Digital Currency (CBDC), i.e., the e-HKD, to move toward the vision of being a cashless city by augmenting innovations in Hong Kong's digital economy. On 18 May 2023, the HKMA announced the commencement of the e-HKD pilot program. It is a key component of the second rail of HKMA's three-rail approach. By conducting thorough research in the six categories of potential uses cases, including full-fledged payments, programmable payments and offline payments of e-HKD, Hong Kong will establish the foundation for the rollout and implementation of e-HKD.

e-CNY has been launched for a few years. Currently, Hong Kong residents can exchange RMB via the Fast Payment System (FPS). The connectivity of e-HKD and e-CNY shall become stronger in the future. There will be multiple means of connective capabilities in the areas of cross-border usage, top-up of e-wallet and offline payments.

78 The People's Bank of China, Financial Statistics Report (April 2023)

Incentives for cross-border financial innovation

In order to facilitate financial cooperation between Shenzhen and Hong Kong and meet the strategic objectives of the GBA, the Local Financial Regulatory Bureau of Shenzhen Municipality has reserved six spots in the "Contribution Awards" category in accordance with the Evaluation Criteria for the Shenzhen Financial Innovation Award, evaluated by the HKMA. These six winners are specifically recognized for contributions made in improving the cross-border financial infrastructure, expanding the channels of investment and capital financing, facilitating the connectivity of markets and establishing new cooperative institutions between Shenzhen and Hong Kong. This initiative has brought forth catalytic effects in the innovative collaboration of cross-border finance between Shenzhen and Hong Kong. Past winners included the Bank of China (Shenzhen Branch)'s innovative service system Shenzhen-Hong Kong Cross Boundary Connect and Bosera Asset Management's Cross-Boundary (Offshore) Investment Buyback Transaction Support System, etc. These are the innovative projects that have enhanced convenience for both cities and the smooth operation of cross-border clearing and settlement.

Cross-border finance

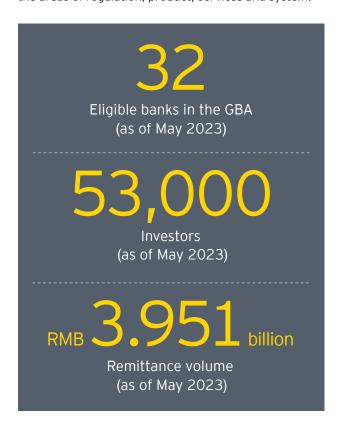
As the key milestones for the bilateral opening of the financial markets in Hong Kong and Shenzhen, the cross-border connectivity measures, such as the Cross-border Wealth Management Connect, the Shenzhen-Hong Kong Stock Connect and Bond Connect continued to improve and upgrade, and greatly enhanced the overall competitiveness of the financial markets in the GBA.

Cross-Boundary Wealth Management Connect

On 10 September 2021, the Implementing Rules for the Pilot Scheme of "Wealth Management Connect" in the Guangdong-Hong Kong-Macao Greater Bay Area was simultaneously released in Guangdong, Hong Kong and Macau. The eligible banks under the Cross-Boundary Wealth Management Connect support investments by the residents of the mainland, Hong Kong and Macau in the eligible wealth management products sold by banks in each other's market. The launch of the Cross-Boundary Wealth Management Connect pilot scheme provides GBA residents with more choices in wealth management products, further facilitates the cross-boundary flow and usage of the RMB, enhances convenience to personal investment and the bilateral liquidity of RMB capital flows, and breaks new grounds for the financial industries of these three economies.

Sep 2021 Implementing Rules for the Pilot Scheme of "Wealth Management Connect" in the Guangdong-Hong Kong-Macao Greater Bay Area Memorandum of Understanding on the Feb 2021 Launch of Cross-boundary Wealth Management Connect Pilot Scheme in the Guangdong-Hong Kong-Macao Greater Bav Area Jun 2020 Joint Announcement of the People's Bank of China, the Hong Kong Monetary Authority, and the Monetary Authority of Macao on the Launch of the Launch of Cross-boundary Wealth Management Connect Pilot Scheme in the Guangdong-Hong Kong-Macao Greater Bay Area

It has been two years since the launch of the Cross-Boundary Wealth Management Connect. According to the data released by the People's Bank of China, as of the end of May 2023, the nine mainland cities of the GBA have reported 32 eligible banks. Twenty-five banks obtained eligibility in Shenzhen. There were 53,000 individual investors participating in the scheme, amongst whom 39,500 were Hong Kong and Macau investors, involving a remittance volume of RMB3.951 billion⁷⁹. This indicates a positive sentiment of the investors, and it also reflects the fact that the Cross-Boundary Wealth Management Connect has deepened the integration of the financial markets of the GBA in the areas of regulation, product, services and system.



⁷⁹ The People's Bank of China, Guangzhou Branch, Report of Business Conditions under the Cross-Boundary Wealth Management Connect (May 2023)

The Shenzhen-Hong Kong Stock Connect

Since its launch in December 2016, the Shenzhen-Hong Kong Stock Connect has continued to expand its offering of eligible stocks in order to catch up with the pace of development in the two markets and facilitate the joint development of the capital markets. The listed companies on the Hong Kong Stock Exchange (HKEX) with weighted voting rights (WVR), biotechnology companies, and the A+H Share companies on the Growth Enterprise Market were included into the eligible stock list in Southbound trading. Eligible Exchange Traded Funds (ETF) listed in the two markets were also included into the Shenzhen-Hong Kong Stock Connect.

Sep 2016, Sep 2018, Measures of Shenzhen Stock Exchange Oct 2019, for the Implementation of Mar 2020, Shenzhen-Hong Kong Stock Connect Jan 2021, *Programme (Amendment)* Jun 2022, Mar 2023 Dec 2016 Notice on the Tax Policies Related to the Pilot Programme of the Shenzhen-Hong Kong Stock Connect Sep 2016 Several Provisions on the Connectivity Mechanism for Trading on Stock Markets in the Mainland and Hong Kong Aug 2016 Implementation Plan for the Shenzhen-Hong Kong Stock Connect

On 3 March 2023, the Shenzhen Stock Exchange amended the Measures of Shenzhen Stock Exchange for the Implementation of Shenzhen-Hong Kong Stock Connect Programme. It added some new categories on the basis of the current eligible stocks, including the stocks of eligible major foreign companies listed in the Hang Seng Index and the stocks of more enterprises listed in Shenzhen. In July 2023, according to a report of the Shanghai Securities News, the regulatory authorities of Shenzhen and Hong Kong are exploring the extension of the stock connect initiative to the real estate investment trusts (REITs) market. This will certainly engender a higher level of bilateral market opening in the REITs sector in Shenzhen and Hong Kong.

According to the statistical data of the Shenzhen Stock Exchange, since the launch of the Shenzhen-Hong Kong Stock Connect and up till the end of 2022, the total transaction volume has been RMB47.26 trillion

for the Northbound. The same for the Southbound was HK\$13.48 trillion. The daily average transaction volume for the Northbound grew from RMB1.541 billion in the first month to RMB62.461 billion in June 2023, a growth of 39.53 times. The daily average transaction volume for Southbound grew from HK\$509 million in the first month to HK\$13.586 billion in June 2023, a growth of 25.69 times⁸⁰. Overall, the Northbound transactions are relatively more active.



Cross-boundary investments and financing

As one of the few areas in the mainland that initiated the early and simultaneous development of Qualified Foreign Limited Partnership (QFLP) and Qualified Domestic Limited Partner (QDIE), Shenzhen, by now, has foreign-invested enterprises with unique characteristics and leveraging effects after years of stable development. This has made critical contribution in attracting foreign enterprises with global influence,

80 Shenzhen Stock Exchange Transaction Information for the Shenzhen-Hong Kong Connect

especially Hong Kong enterprises, to establish their presence in Shenzhen, This has supported the social and economic developments in Shenzhen.

Opinions on Financial
Support for the Development
of the Guangdong-Hong Kong
-Macao Greater Bay Area
issued by the State Administration
of Foreign Exchange and other
authorities

2014
2020
2017
2021

The first interim measures for QFLP issued by the Local Financial Regulatory Bureau of Shenzhen Municipality The Local Financial Regulatory Bureau of Shenzhen Municipality issued the Measures for the Pilot Programme of Foreign-invested Equity Investment Enterprises in Shenzhen The Local Financial Regulatory Bureau of Shenzhen Municipality amended the relevant policies on QFLP and ODIF

On the basis of Guidance on Supporting the Development of the Guangdong-Hong Kong-Macao Greater Bay Area through Financial Sector Opening-up⁸¹, the Local Financial Regulatory Bureau of Shenzhen Municipality, the Shenzhen Branch of the State Administration of Foreign Exchange and other relevant government bodies made amendments to the policies on QFLP and QDIE trial schemes in 2021 and gave these policies a full upgrade. As of the end of June 2022, 177 QFLP management enterprises were established in Shenzhen, and 55 QFLP funds were founded with a scale of US\$7.6 billion. Capital was mainly invested in pioneering industries such as biopharmaceuticals, high-end manufacturing, big consumption, information technology and new materials. This has given the impetus to the next round of upgrades, including the establishment of 71 QDIE management enterprises, with an expected volume of US\$2.015 billion82.

Since the promulgation of the Opinions on Providing Financial Support for the Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone with its 30 measures, Shenzhen has put more effort in promoting its implementation and breathing new life into cross-boundary financial reforms. The Shenzhen Branch of the State Administration of Foreign Exchange, local financial regulatory bureaus and the local financial regulatory bureau of Qianhai have begun the amendment of QFLP regulations, currently in the stage of consultation and implementation, which is expected to be completed in the near future.

QFLP Management Enterprises
(as of end of June 2022)

QFLP Funds
(as of end of June 2022)

QDIE Management Enterprises
(as of end of June 2022)

Collaboration in financial regulation

The joint meeting of the insurance regulators of Guangdong, Hong Kong, Macau and Shenzhen

Under the auspices of the China Banking and Insurance Regulatory Commission, the Shenzhen Office of the China Banking and Insurance Regulatory Commission, the Guangdong Banking and Insurance Regulatory Bureau and the monetary authorities of Hong Kong and Macau established the joint meeting of the insurance regulators of Guangdong, Hong Kong, Macau and Shenzhen. As of now, 22 joint meetings have already been held. It is an important exchange platform for the general development of the insurance industry, the interconnectivity initiatives and the enhancement of regulatory coordination for the four economies.

Cooperation in the regulation of cross-boundary public listing

In regard to the implementation of *Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies* effective on 31 March 2023, the China Securities Regulatory Commission (CSRC) and the Securities and Futures Commission of Hong Kong (SFC) entered into a Memorandum of Understanding, which clarifies the arrangements

⁸¹ https://research.hktdc.com/en/article/NDMyMjl3MDYx

⁸² The People's Bank of China, Shenzhen Branch, Shenzhen's Cross-Boundary Remittance under the Cross-Boundary Wealth Management Connect reaches 400 million, QFLP Funds reach a scale of US\$7.6

and procedures for share issuance and listing, crossboundary enforcement, supervision of intermediaries, and exchange of information between the CSRC and the SFC. The CSRC and SFC will carry out their respective supervisory duties, join hands in combating crossboundary misconduct and offences, safeguard the legitimate interests of investors and ensure the steady and healthy development of both markets.

With supervision by the CSRC, the Shenzhen Office of the CSRC will engage in talent training and exchange with the SFC. Cooperation in respect to cross-boundary regulatory oversight will also be enhanced by way of the CSRC's investigation division, which will assist the investigation of matters for which the SFC has requested attention.

Future prospects for the Financial and Currency Connect in Shenzhen and Hong Kong

On 29 June 2023, the People's Government of Shenzhen Municipality published Shenzhen's Implementation Plan on the Opinions on Providing Financial Support for the Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone (Qianhai Implementation Plan), in which it proposes six main aspects with 115 articles. It also provides explanations and specifications on the 30 measures as stipulated in the Opinions on Providing Financial Support for the Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, with the aim of detailing its implementation with designated responsible units. According to the Qianhai Implementation Plan, governance is conducted under the umbrella of the Shenzhen Branch of the People's Bank of China, the Shenzhen Office of the China Banking and Insurance Regulatory Commission, the Shenzhen Office of the CSRC and the Local Financial Regulatory Bureau of Shenzhen Municipality and other government bodies. The major financial institutions in

the Qianhai Cooperation Zone will comprise the market. The Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone will be the piloting site in the cross-boundary financial initiatives between Shenzhen and Hong Kong. It will be the window of demonstration for the opening up of China's financial industry as the trial region for cross-boundary RMB businesses. Finally, it is the way in for Hong Kong to integrate with China's ongoing initiatives for the reform and opening of China's financial industry.

The integration of the GBA requires the latest insights from global experience. Shenzhen should make reference to worldwide practices and cases for further enhancement of information security of cross-border capital flow, institutional establishments such as tax infrastructure, the application contexts for e-currencies, the connectivity amongst the financial markets of Guangdong, Hong Kong and Macau, the combination of financial innovation and technological advancements, and finally the regulatory collaboration for the prevention of financial risks between Shenzhen and Hong Kong.

The Financial and Currency Connect initiatives draw out the complementary effects of Shenzhen and Hong Kong's respective strengths to provide both economies with mutual benefits. The two governments have steadily implemented the relevant policies with joint efforts, leading to positive interactions and integration of capital, enterprises and talent. At the moment, connectivity has been achieved in fintech and crossboundary finance including wealth management and investment and financing. What follows will be the integration of financial infrastructures, with continuous improvements of the relevant legal and regulatory frameworks. It is expected that financial innovations and high technological advancements will be converged in applications, thereby promoting further connectivity in the region, raising the efficiency of resource allocation and supporting the high-quality development of the GBA economy.



科技及数据通 Technology and Data Connect

根据《中国城市数字经济发展报告(2023年)》⁸³的定义,数字经济是以数字化的知识和信息作为关键生产要素,以数字技术为核心驱动力量,以现代信息网络为重要载体,通过数字技术与实体经济深度融合,不断提高经济社会的数字化、网络化、智能化水平加速重构经济发展与治理模式的新型经济形态。具体包括四大部分:数据价值化、数据产业化、产业数字化、数字化治理。



▲ 数字经济的"四化"框架

数据要素和数字基建作为数字经济的发展的上层建筑,重塑生产要素体系。云计算、人工智能、物联网等核心技术以及工业软件、应用软件等服务构成数字经济产业链,是数字经济中数字产业化的核心。智能制造、金融科技等工业领域及服务业领域的核心应用,是数字经济产业数字化的应用实例,大力推动及促进经济发展。数字化治理,通过数字化技术,助力国家治理,提升公共服务效率,增加行政效率。

深港数字经济现状

深圳数字经济及重点行业现状

> 深圳数字经济现状

深圳的数字经济发展处于国内领先水平,数字经济产业规模亦居全国前列。近年来,深圳围绕数字产业化、产业数字化大力发展数字经济。2022年,深圳数字经济核心产业增加值近万亿元,占GDP比重

超过30%,其产业规模和GDP占比均列全国大中城市之首,产业的强劲动能也带来深圳与东盟数字贸易的"黄金时代"⁸⁴。深圳数字经济的主要优势表现在三个方面:

- 1) 信息技术创新能力不断提升:深圳作为数字经济的平台载体,产业集聚效应良好。
- 2) 信息基础设施完善: 2020年8月, 深圳成为全球 5G独立组网第一城⁸⁵; 2021年4月, 国家(深圳·

⁸³ 中国信息通信研究院,《中国数字经济发展研究报告 (2023年)》,http://www.caict.ac.cn/kxyj/qwfb/bps/202304/t20230427_419051.htm

⁸⁴ 深圳市人民政府新闻办公室官方公众号 https://mp.weixin.qq.com/s/Gynq2sVUo_chpcD4w0ehqA

⁸⁵ 中国小康网,《新基建 再提速! 深圳: 打造全球5G"第一城"》,https://m.thepaper.cn/baijiahao_19280908

前海)新型互联网交换中心正式揭牌运营⁸⁶,成为深圳首个国家级信息基础设施;2021年底,深圳获评全国首批"干兆城市";2022年初,深圳入选IPv6技术创新和融合应用综合试点城市⁸⁷;2023年2月,深圳市工信局发布的《深圳市极速先锋城市建设行动计划》⁸⁸提出,2023年底前,将建成高速率、大容量、低时延的超级宽带网络,实现"双干兆、全光网、1毫秒、万物联"网络建设目标。

3) 数字经济生态企业实力强劲:深圳培育出华为、中兴通讯、腾讯、平安科技等一批具有核心竞争力的主导型企业,大企业带动中小企业发展、中小企业为大企业注入活力,形成企业融会贯通、并肩发展的良好局面。

> 深圳科技及数字产业现状

深圳作为具有国际竞争力的制造业基地,在智能制造产业拥有明显优势,主要集中于人工智能、装备制造、工业互联网三大领域。其中,涉及人工智能企业1,920家⁸⁹,高端制造装备突破4,000家⁹⁰,机器人企业达1,018家⁹¹;在5G技术加持下,深圳工业互联网技术取得突破性进展。2022年5月,工信部公示跨行业跨领域工业互联网平台清单中⁹²,华为、富士康、腾讯、华润数科等4家深圳平台上榜,占据清单的七分之一。

香港数字经济及重点行业现状

▶ 香港数字经济现状

香港特区政府对数字经济的发展持积极态度,并致力推动数字经济发展。2017年12月,香港特区政府发布《香港智慧城市蓝图》⁹³(以下简称《蓝图》),就香港的数字经济发展订立蓝图,构建一个世界闻名、经济蓬勃及市民拥有优质生活的智慧香港;3年后,《蓝图》升级为《香港智慧城市蓝图2.0》⁹⁴。《蓝图》在6个智慧范畴(即"智慧出行""智慧生活""智慧环境""智慧市民""智慧政府"和"智慧经济")下提出了76项措施,以创新科技应对城市管理挑战和市民生活

质量改善,其中,超过40项措施已经完成。目前,已如期完成的多项数码基建项目包括:快速支付系统"转数快",增设免费公共Wi-Fi热点,在2020年9月已投入服务的新一代政府云及大数据分析平台,以及在同年12月推出的"智方便"一站式个人化数码服务平台等。香港特区政府亦积极推动公私营机构通过开放数据,以促进科研及创新,便民利民,同时协助业界拓展商机。

香港科技及数字产业现状

在香港,金融行业仍占据不可动摇的主导地位。金融科技生态在香港迸发出充分活力,并彰显着多元化魅力。

香港金融科技的发展和应用取得良好进展:目前,香港拥有超过800家金融科技公司⁹⁵,提供移动支付、跨境支付、智能理财顾问、区块链等服务。凭借"一国两制"体制独特优势,香港充分享受粤港澳大湾区发展带来的大量机遇。此外,香港还拥有与国际接轨的规管制度及友好的营商环境,特区政府也积极推动金融科技发展,通过加强金融科技基建、促进第三代互联网(Web3)发展,以及增加金融科技人才等手段,提升金融科技公司落户香港的吸引力和号召力,全面、持续推动香港的金融科技发展。

深港数字经济、科技及数字领域的 融合

为促进深港在金融、现代服务业、人工智能等行业 的科技融合,国家在数据跨境融合领域已配套相关 政策指引,引导、规范健康融合与发展。

2021年9月出台的《全面深化前海深港现代服务业合作区改革开放方案》⁹⁶提出,前海需推进与港澳规则衔接、机制对接,丰富协同协调发展模式,打造粤港澳大湾区全面深化改革创新试验平台。

《2022年广东省数字经济工作要点》97特别提到"发

- **86** 深圳特区报,《国家(深圳·前海)新型互联网交换中心揭牌》,https://baijiahao.baidu.com/s?id=1697074962485088377&wfr=spider&for=pc
- **87** 中国电子报,《全国首批"干兆城市"名单发布 京津沪等29个城市获评》,http://m.cena.com.cn/industrynews/20211226/114610.html
- 88 深圳市工业和信息化局,《深圳市极速先锋城市建设行动计划》,http://www.caict.ac.cn/kxyj/qwfb/bps/202304/t20230427_419051.htm
- 89 澎湃新闻,《全国前三!》,https://www.thepaper.cn/newsDetail_forward_23450051
- 90 中国质量报,《深圳推进智能制造标准应用试点申报工作》,https://baijiahao.baidu.com/s?id=1734240936592184440&wfr=spider&for=pc
- **91 OFweek机器人网,《重磅! 深圳机器人产值达1644亿,企业数量首次超过1000家》,**https://robot.ofweek.com/2023-04/ART-8321200-8100-30593318.html
- 92 工业和信息化部办公厅,《2022年跨行业跨领域工业互联网平台名单》,https://wap.miit.gov.cn/jgsj/xxjsfzs/xxgk/art/2022/art_80b8a550b-65d4954a02d7300056c849a.html
- 93 香港創新及科技局,《香港智慧城市蓝图》,https://www.smartcity.gov.hk/modules/custom/custom_global_js_css/assets/files/HongKongSmartCity-Blueprint(CHI).pdf
- 94 香港創新及科技局,《香港智慧城市蓝图2.0》,https://www.smartcity.gov.hk/modules/custom/custom_global_js_css/assets/files/HKSmartCityBlue-print(CHD)v2 ndf
- 95 证券时报,《香港科创产业谋变 积极推动大湾区多领域合作》,http://hmo.gd.gov.cn/ygahz/content/post_4136565.html
- 96 中共中央 国务院,《全面深化前海深港 现代服务业合作区改革开放方案》,https://www.gov.cn/gongbao/content/2021/content_5637944.htm

挥数据要素作用",包括依托现有交易场所建设省数据交易场所,支持创新建设深圳市数据交易所,为数据要素市场建设探路。

目前,深圳数据交易所(深数所)已与香港相关单位建立了良好的合作关系,共同推动两地数据要素流通探索,发挥深圳毗邻港澳的地域优势,率先制定跨境数据交易技术标准和业务规范,建立跨境数据流通备份审查、跨境数据流通和交易风险评估管理机制,搭建跨境数据可信流通技术平台,开展跨境数据流通融合应用创新。

此外,深数所将陆续在前海深港现代服务业合作 区、河套深港科技创新合作区开展数据交易合作试 点,重点以跨境科学研究、金融科技、数字证书和 电子签名互认等为应用场景,开展深港、深澳跨境 数据流通融合应用创新,探索安全规范的跨境数据 合作模式。

现时深港在数字经济、科技以及数据领域的融合已 经初具规模。

在现代服务业、通信领域,港交所集团在国内设立前海联合交易中心,积极开展"前海仓单"建设项目,采用区块链、物联网、人工智能等科技,为仓单注册、管理、流转、融资、保险等环节提供核心风控技术;香港电讯与深圳前海新型互联网交换中心启动合作项目,发挥各自在信息通信领域的优势,共同推进湾区信息融通,为未来粤港澳大湾区信息基础设施互联互通和产业融合探索新的道路⁹⁸。

在金融领域,包括跨境支付、数字人民币、其他金融科技等,深港正开展各类科技融合,实现两地生活、支付便利接轨以及金融机构的高效协同。此外,深港正在构建金融科技对接机制,打造具有全球影响力的金融科技产业高地。

在新兴行业,深港也在积极探索融合实践,包括在落马洲河套地区港深创新及科技园的建设中,人工智能被列为优先发展的合作领域之一,以提升深港科技竞争力⁹⁹。

深港在科技、数字经济领域的纵深合作,是政策的 积极引导,也是谋求进一步发展的必然结果。香港 具备领先科研能力、顶尖科技人才储备、成熟的国 际金融市场以及与国际市场的无缝接轨等优势。然 而受限于自然资源、人力成本等限制,本地市场规 模有限、成果转化困难等劣势正在不断显现。而深 圳具备完整的产业链、强大的成果转化能力、规模 巨大的市场、充足的资本、全球领先的数字经济水 平等优势。深港在科技与数据领域的融合,可为香港企业打通内地市场、提供成果转化渠道与人才发展平台,也是内地企业打通国际市场、进一步积累 技术优势、提高管理水平的快速通道。

深港跨境数据流动的合规方案

数字经济的核心是数据,而数据的价值在于流动,如何对数据流动进行管理是数据治理的核心问题,同时也是地区间合作或博弈的重要议题。

深港数据融合面临的问题

尽管深港在近年来不断探索数据跨境交互与共享,但目前香港与内地尚未建立协商一致的数据跨境机制。此外,由于深港两地法律法规的历史根源、立法模式、规制方式以及司法确认都存在差异,数据安全、个人信息保护等标准也不统一,故导致跨境的协同监管遇到难题,不利于促进两地数据跨境的合法、安全与便利开展¹⁰⁰。

深港数据流动的合规建议

▶ 制定一套大湾区数据管治标准¹⁰¹

大湾区涵盖三个司法管辖区,各司法管辖区均有不同的法律制度。尽管这是大湾区的独特体制,但这种监管上的差异不应成深港两地数据跨境融合的障碍。长远而言,应建立一个覆盖大湾区的法律及监管数据框架,以减少在不同司法管辖区转移数据的问题。大湾区各地也应制定一套符合司法管辖区监管规定的标准合同条款,模板条款有助于减少企业的谈判及合规成本和时间,同时确保个人资料在境外转移时得到保护。

▶ 开展试点项目,探讨跨境数据共享的可行性¹⁰²

可参考自由贸易区的政策,在深港两地进行跨境 数据试点。具体而言,试点项目的开展可以考虑 以下几个方面:

首先,应进一步探索在深港试点商业区或经济特区开展的试点项目。前海深港现代服务业合作区已设立为试点商业区,推动中国内地与香港在金融服务、信息科技服务及物流活动方面的合作,

⁹⁷ 广东省工业和信息化厅,《2022年广东省数字经济工作要点》,http://gdii.gd.gov.cn/jcgk2139/content/post_3911822.html

⁹⁸ 深圳前海管理局,《前海深港现代服务业合作区2020-2021年度营商环境蓝皮书》,http://qh.sz.gov.cn/sygnan/qhzx/dtzx/content/post_9436844.html

^{99 《}大湾区国际科技创新重要引擎—河套深港科技创新合作区创新纪实》,http://www.szgba.gov.cn/yw/content/post_752720.html

¹⁰⁰ 专访深数交王腾: 开展深港、深澳跨境数据流通融合应用创新,探索安全规范合作模式》,https://www.thepaper.cn/newsDetail_forward_23450051

¹⁰¹ 香港金融发展局,《连接数据: 将香港打造为跨境金融数据枢纽》,https://www.fsdc.org.hk/media/qabm1myv/20221209-datahub-report-final-tc.pdf

¹⁰² 香港金融发展局,《连接数据:将香港打造为跨境金融数据枢纽》,https://www.fsdc.org.hk/media/qabm1myv/20221209-datahub-report-final-tc.pdf

更多的试点项目可有效推动数据跨境的安全、合规 与高效推进,并成为标杆,为企业与监管部门提供 参考。

同时,建议在深港建立数据海关,旨在规管跨境数据转移并支持区内数据整合。建议在中国内地与香港现行数据法律寻找共同点,就跨境数据转移的不同目的和情况制定一套规则、法规及指引。

最后,为推动试点项目,建议成立由行业代表组成 的工作小组,指导并促进整体协调。

建立白名单及灰名单,促进大湾区内的跨境数据 转移¹⁰³

根据目前法律框架,离开中国内地及香港的数据须取得不同程度的监管批准及履行不同程度的责任。因此,建议香港政府及内地机构放宽或豁免若干数据类型的监管规定,推动深港数据跨境交易,相关交易惟须遵守对所转移数据的安全及保障有明确责任的规则及协议。该方法可以用白名单及灰名单的形式表示。如白名单将允许若干类别数据自由进出;灰名单仅适用于获准在大湾区内转移的数据类别,不得转移到区域以外。

但是由于识别各名单中包含的数据类型具有挑战性,因此各类数据的定义及范围都需要清晰而明确的界定。当决定列入白名单及灰名单的数据类别时,香港及相关内地机构可参考其他司法管辖区规管若干数据类别转移的方法。

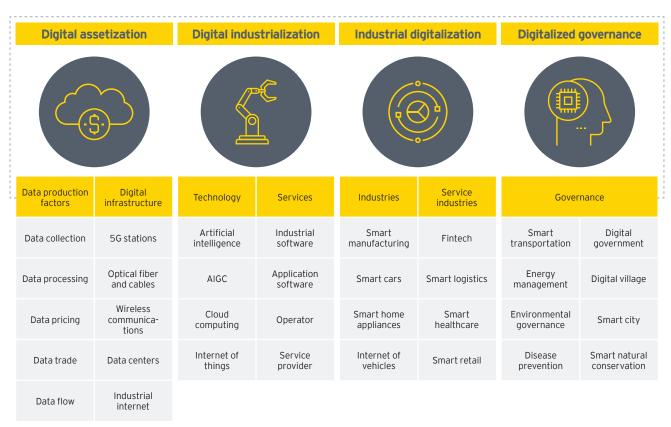
目前,针对深港跨境数据流动的合规方案,深港两 地政府已推出一系列举措。香港创新科技及工业局 与国家互联网信息办公室2023年6月签署《促进 粤港澳大湾区数据跨境流动的合作备忘录》,共同 推动粤港澳大湾区数据跨境流动工作104。根据备忘 录,创科及工业局和政府资讯科技总监办公室会与 国家网信办紧密合作及深入探讨,以期通过采取有 效管理措施, 促进数据在大湾区内跨境安全流动。 国家"十四五"规划明确支持香港建设国际创新科技 中心。促进数据在大湾区流动是推动粤港澳三地高 质量发展的重要举措, 既能降低企业跨境数据流动 的合规成本, 亦能促进大湾区数字经济发展, 助力 香港积极融入国家发展大局。我们期待在备忘录以 及其他政策合作的推动下,能构建便利、安全、高 效的两地数据跨境合作渠道与路径,促进两地科技 融合及数据流通。



^{103 《}从香港个人资料跨境传输规则展望与内地的数据跨境流动合作》,https://www.secrss.com/articles/41445

¹⁰⁴ 香港特别行政区政府,《创新科技及工业局与国家互联网信息办公室签署合作备忘录》,https://sc.isd.gov.hk/TuniS/www.info.gov.hk/gia/gener-al/202306/30/P2023063000208.htm?fontSize=1

According to the *White Paper on the Development of Digital Economy in Chinese Cities (2023)* ⁸³, digital technology is the core driving force of the digital economy with bases on digitalized knowledge and information as key production factors. Modern information network serves as the means of delivering economic growth. A thorough integration between the digital economy and the real economy raises the level of digitalization, network prevalence and smart capabilities in the society. Known as the new economy, the digital economy entails a re-imagination of the relationship between economic development and governance. To this end, there are four aspects of digital transformation, namely digital assetization, digital industrialization, industrial digitalization and digitalized governance.



The four categories of digital transformation

As the superstructure of the digital economy, digital factors and digital infrastructures have reshaped the system of factors of production. Core technologies such as cloud computing, artificial intelligence (AI), the Internet of Things (IoT) networks and industrial software and application software constitute the industrial chain for the digital economy. They are the core of digital industrialization. Practical applications of digital industrialization are seen in the core utilization of digital technology in the industry and service sectors such as smart manufacturing and fintech. These practical application scenarios have driven economic development. Digitalized governance is the use of digital technology in governance matter to raise the efficiency of public service provision and general administration.

The current state of the digital economies of Shenzhen and Hong Kong

The current state of key industries in Shenzhen's digital economy

► The current state of the digital economy in Shenzhen

Shenzhen's digital economy development leads the nation, so does the scale of its digital industries. In recent years, Shenzhen has extended significant effort in developing the digital economy in the two areas of digital industrialization and industrial digitalization. In 2022, the core industries of Shenzhen's digital economy

⁸³ The China Academy of Information and Communications Technology (CAICT), The White Paper on the Development of Digital Economy in Chinese Cities (2022), http://www.caict.ac.cn/kxyj/qwfb/bps/202304/t20230427_419051.htm

have grown nearly a trillion yuan in value, accounting for more than 30% of its GDP. Both its industrial scale and its percentage to the GPA rank top in the nation. The strong development of its digital industries has also brought forth the "golden era" in the digital trade between Shenzhen and ASEAN⁸⁴. There are three main areas of comparative advantage in Shenzhen's digital economy.

- Shenzhen's capability to innovate in information technology rises consistently. Good cluster effects in Shenzhen's industries have resulted in Shenzhen being a main platform for digital economy development.
- 2) There is a good basic infrastructure for information technology in Shenzhen. Shenzhen is the world's first city to equip with a standalone 5G network in August 2020⁸⁵. In April 2021, the National (Shenzhen Qianhai) New-type Internet Exchange Point was inaugurated⁸⁶, becoming the first national-level information infrastructure in Shenzhen. At the end of 2021, Shenzhen was assessed to be one of the first group of "gigabit cities" in the nation. In early 2022, Shenzhen was selected as one of the pilot cities for IPv6 technology innovation and integrated application87. In February 2023, the Industry and Information Technology Bureau of Shenzhen Municipality issued Shenzhen's Action Plan for Ultra Speedy Urban Development for a Pioneering City⁸⁸, in which it proposed that Shenzhen will construct an UWB (Ultra Wide Band) network with ultra speed, enormous capacity and low time delay before the end of 2023. The foregoing developments will shore up Shenzhen's capability in meeting the network development goal of "dual gigabit, full optical network coverage, one millisecond, and ten thousand IoT".
- 3) Shenzhen's enterprises have a strong showing in the digital ecosystem. Shenzhen is the city that brought up leading enterprises with core competitiveness, such as Huawei, ZTE, Tencent and Ping An Technology. Large enterprises motivate the development of small and medium sized enterprises. And small and medium sized enterprises

inject vitality into large enterprises. This symbiotic relationship sets the stage for an integrated development that will benefit the whole innovative ecosystem.

The current state of Shenzhen's technology and digital industries

As a globally competitive industrial base for manufacturing, Shenzhen has a clear competitive edge in its smart manufacturing industry. The three key areas of strength are AI, equipment manufacturing and Industrial Internet. There are 1,920 enterprises operating in the AI space⁸⁹, 4,000 enterprises in highend equipment manufacturing⁹⁰ and 1,018 enterprises in robotics⁹¹. With the upgrade of a 5G infrastructure, Shenzhen's Industrial Internet sector has made significant breakthroughs. In May 2022, the Ministry of Industry and Information Technology (MIIT) announced the List of Cross-Industry and Cross-Sector Industrial Internet Platform⁹². On the list were the four Shenzhen platforms of Huawei, Foxconn, Tencent and CR Digital, constituting one-seventh of the total number on the list.

The current state of Hong Kong's digital economy and key industrial trends

The current state of Hong Kong's digital economy

The Hong Kong Special Administrative Region (HKSAR) has adopted a proactive approach in the development of its digital economy. In December 2017, the Government of the HKSAR (Hong Kong Government) released the *Hong Kong Smart City Blueprint* ⁹³ (Blueprint), in which the path of development of Hong Kong's digital economy was mapped out. The aim is to create a world-famous, economically vibrant smart city, where its residents have a high quality of life. Three years later, the Blueprint was upgraded to *Hong Kong Smart City Blueprint* 2.0 ⁹⁴.The Blueprint proposed 76 measures under the six Smart Areas of Smart Mobility,

- $\textbf{84 The Information Office of Shenzhen Municipal People's Government}, \ https://mp.weixin.qq.com/s/Gynq2sVUo_chpcD4wOehqA$
- 85 China Xiaokang Net, www.cnxk.com, New Infrastructures Speeding Up! Shenzhen: the World's First 5G City, https://m.thepaper.cn/baijiahao_19280908
- 86 Shenzhen Special Zone Daily, National (Shenzhen Qianhai) New-type Internet Exchange Point Unfolds, https://baijiahao.baidu.com/s?id=1697074 962485088377&wfr=spider&for=pc
- 87 Industry and Information Technology Bureau of Shenzhen Municipality, Industry and Information Technology Bureau of Shenzhen Municipality, http://www.caict.ac.cn/kxyj/qwfb/bps/202304/t20230427_419051.htm
- 88 Industry and Information Technology Bureau of Shenzhen Municipality, Industry and Information Technology Bureau of Shenzhen Municipality, http://www.caict.ac.cn/kxyj/qwfb/bps/202304/t20230427_419051.htm
- 89 The Paper, Top Three in the Nation! https://www.thepaper.cn/newsDetail_forward_23450051
- 90 China Quality News, Shenzhen Rolls Out Smart Manufacturing Standard Application Pilot Scheme Reporting, https://baijiahao.baidu.com/s?id=17 34240936592184440&wfr=spider&for=pc
- 91 Robot.OFweek.com, Robotics Industries in Shenzhen Reaches 164.4 billion, Number of Enterprises Exceeds 1,000 for the First Time! https://robot.ofweek.com/2023-04/ART-8321200-8100-30593318.html
- 92 General Office of Ministry of Industry and Information Technology, List of Cross-Industry and Cross-Sector Industrial Internet Platform, https://wap.miit.gov.cn/jgsj/xxjsfzs/xxgk/art/2022/art_80b8a550b65d4954a02d7300056c849a.html
- 93 Innovation, Technology and Industry Bureau of the Government of the HKSAR, Hong Kong Smart City Blueprint, https://www.smartcity.gov.hk/modules/custom/custom_global_js_css/assets/files/HongKongSmartCityBlueprint(CHI).pdf
- 94 Innovation, Technology and Industry Bureau of the Government of the HKSAR, Hong Kong Smart City Blueprint 2.0, https://www.smartcity.gov.hk/modules/custom/custom_global_js_css/assets/files/HKSmartCityBlueprint(CHI)v2.pdf

Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy. New technology will be applied in meeting the challenges of urban management and improving the quality of life for Hong Kong's residents. Amongst these 76 measures, 40 of them have already been completed. At the moment, a number of digital infrastructure projects have also been completed, including the Fast Payment System, the expansion of Wi-Fi hotpots for free and public access, the new-generation government cloud and big data analysis platform that has begun operations in September 2020, and the eID/"iAM Smart" one-stop personalized digital service provision platform that was rolled out in December of the same year. The Hong Kong Government has also been active in promoting open data for both public and private entities in order to facilitate scientific research and innovations, which will eventually benefit Hong Kong's residents and also encourage new opportunities for commerce and industry.

The current state of Hong Kong's technology and digital industries

The finance industry of Hong Kong continues to be the unrivalled industry leader in Hong Kong's economy, with a fintech ecosystem that is vibrant and diverse.

The development and application of fintech in Hong Kong has been a well-charted course. Currently, there are 800 fintech companies in Hong Kong⁹⁵, providing services in mobile payment, cross-boundary payment, smart wealth management consultation, blockchain, etc. Hong Kong has unique strengths under the "one country, two systems" framework and with it comes the enormous opportunities from the GBA. Furthermore, Hong Kong has long developed regulatory systems that align with international standards, and business environments that are open and globally oriented. The Hong Kong Government has also promoted the development of fintech by fostering its fintech infrastructure, facilitating the development of Web3 and boosting the supply of fintech talent. These measures aim to raise the fintech profile of Hong Kong to attract the establishment of relevant industry participants, and promote and sustain a comprehensive course of development for this industry in Hong Kong.

The integration of digital economy, technology and digital initiatives in Shenzhen and Hong Kong

In order to promote the integration of finance, modern services industries and AI for Shenzhen and Hong Kong, the Chinese Government has rolled out relevant policy guidance for cross-boundary integration of digital initiatives, providing regulatory support for robust developments in the future.

In September 2021, the Comprehensive Deepening of the Reform and Opening-up Plan for Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone⁹⁶ proposed that a coordinated development model must incorporate policy, regulatory and institutional alignment with Hong Kong and Macau, and result in synergies that will deepen the reform and opening of the GBA.

In the Working Agenda for the Digital Economy in Guangdong Province 2022⁹⁷, specific mention was made to "fully realize the functions of digital economic production factors", including the establishment of a provincial-level data exchange upon the basis of existing infrastructures, and support for the newly established Shenzhen Data Exchange, both of which are the building blocks for production factors in the two digital economies.

Currently, the Shenzhen Data Exchange has forged working relationships with a number of Hong Kong institutions. Looking ahead, efforts will be dedicated to enabling the flow of production factors, establishing the technical standards and business regulations for cross-boundary data exchange, instituting record-filing and due diligence for cross-boundary data flow, setting up the management mechanisms for cross-boundary data flow and exchange risk assessments, creating the technical platform for trustworthy data flow across the boundary, and developing innovations in the integration of cross-boundary data flow applications.

Furthermore, the Shenzhen Data Exchange will continue to develop innovations in the integration of cross-boundary data flow applications and explore a cross-boundary data cooperation model that is safe and regulated, with emphases on the application scenarios of cross-boundary scientific research, fintech, digital certificates and mutual recognition of digital signatures. The Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone and the Shenzhen-Hong Kong Innovation and Technology Cooperation Zone will be the primary pilot sites for policy and institutional application.

The integration of digital economy, technology and digital initiatives has already taken shape with some scale.

For example, in modern services and the communications industries, the Hong Kong Stock Exchange has established the Qianhai Mercantile Exchange in furtherance of the "Qianhai warehouse receipt" construction project. Technologies such as blockchain, IoT and AI provide core risk management

⁹⁵ Securities Times, Changes Sought in Hong Kong's Technology Innovation Sector, Active Promotion of Multi-arena Cooperation in the GBA, http://hmo.qd.qov.cn/yqahz/content/post 4136565.html

⁹⁶ The Central Committee of the Chinese Communist Party and the State Council, Comprehensive Deepening of the Reform and Opening-up Plan for Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, https://www.gov.cn/gongbao/content/2021/content_5637944.htm

⁹⁷ Department of Industry and Information Technology of Guangdong Province, Working Agenda for the Digital Economy in Guangdong Province 2022, http://gdii.gd.gov.cn/jcgk2139/content/post_3911822.html

capabilities for warehouse receipt registration, management, flow, financing and insurance, etc. Hong Kong Telecom has also cooperated with the National (Shenzhen Qianhai) New-type Internet Exchange Point to capitalize on the respective strengths of the two entities and promote the integration and connectivity of information infrastructures in the GBA. Together they will blaze a new trail in the GBA's construction of and mutual access to basic information infrastructure⁹⁸.

In the finance industry, efforts have been made to develop integrative ventures, such as cross-boundary payment, e-CNY and other types of fintech. These technologies are envisioned to bless day-to-day transactions with convenience and connectivity, and result in significant synergies on the institutional level. Furthermore, Shenzhen and Hong Kong have also been working on the alignment mechanisms for fintech, laying the groundwork for a fintech hub with global influence.

The same spirit of cooperation has also been shown for the integration of emerging industries. The development of AI is touted to be the top priority in the establishment of the Shenzhen-Hong Kong Innovation and Technology Cooperation Zone in Lok Ma Chau, as it is expected to raise the technological competitiveness of both Shenzhen and Hong Kong⁹⁹.

As policy guidance brings deepening ties between Shenzhen and Hong Kong on the technology and digital economy fronts, cooperation is imperative for further developments in both economies. Hong Kong is capable of leading science and technology research with its reserve of top talent. Its international financial markets are mature and highly regarded by world investors. However, it is subject to some limitations, such as the lack of natural resources, high labor costs, small domestic market and the difficulty in commercializing research findings. Shenzhen has full production chains and expertise in transforming research findings into viable products in its enormous market. The industries are backed by ample capital and a world-leading digital economy. These are the strengths that both cities will benefit from during integration. Hong Kong is well positioned in opening up the mainland markets, making its way through the commercialization of innovative research and talent training. At the same time, Hong Kong will be the expedited means through which mainland enterprises can access the global market, and further hone their technical capabilities and management practices.

Compliance plan for cross-boundary data flow between Shenzhen and Hong Kong

Data is the very core of the digital economy. The value of data lies in its fluidity. Therefore, how to manage data flow is the core concern in data governance. It is also an important theme for both the collaborative and the competitive aspects of regional economic relationships.

Some issues concerning data integration between Shenzhen and Hong Kong

Although the two cities have been exploring the exchange and sharing of cross-boundary data in recent years, there has been no agreement on a cross-boundary mechanism. Furthermore, owing to differences in heritage, legislation, rule-making and judicial enforcement in the two legal systems, the standards for data security and privacy protection are not yet unified. This results in the difficulty in implementing joint and cross-boundary regulation, as such stalling cross-boundary data transfer and integration in a compliant, secure and convenient way¹⁰⁰.

Compliance suggestions for data flow between Shenzhen and Hong Kong

 Draw up a set of standards for data governance for the GBA¹⁰¹

The GBA consists of three jurisdictions with different legal systems. This unique feature of the GBA should not be the barrier to the regulatory integration for cross-boundary data initiatives. In the long run, there should be a legal and regulatory framework for data governance for all jurisdictions within the GBA. A unified framework will minimize the problem of data transfer amongst different legal jurisdictions. The GBA cities should also develop standard contract clauses that meet the regulatory requirements of their respective jurisdictions. Such standard contract clauses will reduce the time and costs of negotiation and compliance for enterprises. At the same time, personal information will be protected during cross-boundary transfer.

⁹⁸ Shenzhen Qianhai Authority, Blue Paper on the Business Environment of *Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone 2020-2021*, http://qh.sz.gov.cn/sygnan/qhzx/dtzx/content/post_9436844.html

⁹⁹ Important Engine for International Technological Innovations in the GBA-Documenting the Innovations in the Shenzhen-Hong Kong Innovation and Technology Cooperation Zone, http://www.szgba.gov.cn/yw/content/post_752720.html

¹⁰⁰ An Interview with Wang Teng of Shenzhen Data Exchange: Innovative Application of Cross-Boundary Data Flow Integration, Explore Model for Security Regulation Cooperation, http://www.21jingji.com/article/20220811/herald/943d58c0b3348637df4a904db65a084f.html

¹⁰¹ Financial Services Development Council, Connecting Data: Establishing Hong Kong as a Cross-Boundary Financial Data Hub, https://www.fsdc.org.hk/media/qabm1myv/20221209-datahub-report-final-tc.pdf

▶ Develop pilot schemes to explore the feasibility of cross-boundary data sharing¹⁰²

The policies in the free trade zones will serve as a handy reference. The cities can introduce pilot schemes for certain cross-boundary data, with specific consideration of the following three aspects:

The cities should further explore possibilities in the pilot schemes already in place in the pilot commercial zones or special economic zones of Shenzhen and Hong Kong. The Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone has been established as a pilot commercial zone with the purposes of promoting cooperation in financial services, information technology services and logistics between the mainland and Hong Kong. Effective implementation of more pilot schemes there may promote the security, compliance and effectiveness of cross-boundary data. In the case of success, the experience will become a benchmark for enterprises and regulators.

At the same time, Shenzhen and Hong Kong should set up data customs offices, with the aim of regulating cross-boundary data transfer and supporting data integration in the region. It is suggested that the respective governments find common ground in the existing data legislation in their jurisdictions, and formulate a set of rules, regulations and guidance meeting different purposes and contexts of cross-boundary transfer.

Finally, in order to promote these pilot schemes, Shenzhen and Hong Kong should form working groups with membership from the representatives of enterprises, who will guide and facilitate the overall coordination effort.

► Make whitelists and grey lists to facilitate crossboundary data transfer¹⁰³

According to the current legal framework, data exiting the Chinese mainland and Hong Kong must receive differing degrees of regulatory approval with attendant duties. Therefore, it is suggested that the Hong Kong Government and mainland authorities relax or exempt the regulatory restrictions on certain types of data, to give room for cross-boundary data trades to develop – although the clear duties arising under the rules and agreements on data security and protection must be adhered to. This regulatory intention may be reflected in the form of whitelists and grey lists. For example, whitelists denote the free

transit of certain types of data; while grey lists are applicable for the transfer of certain types of data within the GBA only and must not be transferred outside.

However, challenges exist in the identification of the types of data in the lists, as it entails the making of clear and unequivocal provisions on the definition and scope of each type of data. When the determination is made on which types of data appear on which list, Hong Kong and the relevant authorities in the mainland should study how the transfer of these data are regulated in other jurisdictions.

Currently, the Shenzhen and Hong Kong governments have already rolled out some compliance measures for cross-boundary data flow. Hong Kong's Innovation, Technology and Industry Bureau and the Cyberspace Administration of China signed the Memorandum of Understanding on Facilitating Cross-boundary Data Flow Within the Guangdong-Hong Kong-Macao Greater Bay Area (MOU), and join forces in promoting the development of cross-boundary flow in the GBA¹⁰⁴. According to the MOU, the Innovation, Technology and Industry Bureau and the Office of the Government Chief Information Officer will work closely with the Cyberspace Administration of China to explore the effective regulatory mechanisms that ensure the safe flow of cross-boundary data within the GBA. The 14th Five-Year Plan affirms China's support for Hong Kong in its effort to establish itself as an international innovative and technological center. The facilitation of data flow within the GBA is an important measure for the high-quality development of the GBA. It will lower the compliance cost for cross-boundary data flow while facilitating the GBA's digital economy. Hong Kong participates in this process as a key player in China's overall development. We expect to see the establishment of convenient, secure and effective cooperation for cross-boundary data development within the framework of the MOU and other policies, and eventually further integration in the innovation and digital economies of Shenzhen and Hong Kong.

¹⁰² Financial Services Development Council, Connecting Data: Establishing Hong Kong as a Cross-Boundary Financial Data Hub, https://www.fsdc.org.hk/media/qabm1myv/20221209-datahub-report-final-tc.pdf

¹⁰³ From the Cross-Boundary Transfer Rules for Hong Kong's Personal Data to the Outlook of Cross-Boundary Cooperation of Cross-Boundary Data with the Mainland. https://www.secrss.com/articles/41445

¹⁰⁴ The Government of the HKSAR, Memorandum of Understanding on Facilitating Cross-boundary Data Flow Within the Guangdong-Hong Kong-Macao Greater Bay Area, https://sc.isd.gov.hk/TuniS/www.info.gov.hk/gia/general/202306/30/P2023063000208.htm?fontSize=1

医疗通 Health Connect

深港医疗创新合作探索

粤港澳大湾区作为中国开放程度高、经济活力强的区域,近年来在医疗方面不断探索创新实践。在这个过程中,两个具有鲜明特色的创新领域(深港跨境医疗、数字化医疗),逐渐成为大湾区医疗创新探索的排头兵。

一方面,深圳和香港作为大湾区最具代表性的城市,其在医疗发展中的差异性以及禀赋的不同为推动两地医疗优势互补、协同发展提供天然土壤。香港作为综合国际化医疗中心,拥有先进的管理理念并遵循严格的国际标准。而深圳作为一个期望与国际医疗水平接轨的城市,通过深港医疗融合可以进一步促进其自身发展。深港医疗融合将为国家建设国际化标准的医疗体系提供重要参考样板,具有重要的战略意义。

另一方面,随着人工智能(AI)理论和技术在医疗领域的日趋成熟,深圳也不断鼓励开发数字化医疗的运用。《深圳市卫生健康事业发展"十四五"规划》中提出,深圳在将来需要形成可信、共享的统一卫生健康数据底座¹⁰⁵。已经拥有较为成熟数字化医疗的香港,可在粤港澳大湾区的政策推动下,帮助深圳达成其数字化医疗目标。

深港跨境医疗

随着大湾区居民健康意识的提升,以及越来越多的香港居民到大湾区内地城市谋求发展,湾区内地提升医疗水平的需求与日俱增。然而,湾区内地患者面临医疗资源不够丰富的问题。而放眼大湾区内,香港所具有的高水平医疗服务和扎实的医疗网络,正是湾区内地所需要的。将香港的医疗资源引入湾区内地将有助于满足湾区内地对提升医疗水平的迫切需求。

另一方面,香港虽具有雄厚的药物研发科研基础、强劲的医学科研实力和人才,但受限于当地生产制造能力不足及市场规模较小,优质的医疗科研成果面临难转化落地的难题。而以深圳为代表的湾区内地,其较完善的医疗医药产业链和广阔的医药消费市场恰恰为香港科研成果的转化提供土壤。

因此,基于深港两地在医疗领域的不同需求,以及在资源禀赋上各自的优势,资源优势互补就成为拉动两地协同发展难得的好机会。深港之间的资源互补有助于香港医疗科研成果产业化,也有助于深圳(乃至大湾区)获得优质的医疗资源。近年来国家政策支持和鼓励深港医疗协同发展,深港跨境医疗合作成为大湾区的一项具有鲜明特色的举措:

2018年,粤港澳三地签署《粤港澳大湾区卫生与健康合作框架协议》,提出要在医学人才、机构办医等方面推动大湾区医疗协同发展。

2019年,国务院印发《粤港澳大湾区发展规划纲要》,提出要塑造健康湾区。同时,在医疗协同发展方面,需要推进深度合作,支持香港医疗卫生服务提供主体在大湾区设立医疗机构,发展区域医疗联合体和区域性医疗中心,加强医疗卫生人才的联合培养和交流,探索在指定的公立医院开展跨境转诊合作的试点等。

2021年,深圳市《关于加快推动医疗服务跨境衔接的若干措施》(以下简称《跨境医疗措施》)正式出台,促进优质医疗卫生资源跨境流通,加速国外新药的使用,让更多香港居民在内地就医,也使病人的跨境转运更加便捷。

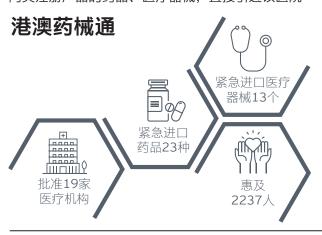
深圳香港(深港)跨境医疗



在政策支持和激励下,深港跨境医疗已经涵盖新药引进、内地办医、人才流通、内地就医四个领域。

▶ 新药引进

通常,国外新药在进入中国内地市场前,必须先针对内地患者开展临床试验。这使得国外新药需要时隔数年才能在国内上市,中国内地患者无法及时使用先进药物治疗疾病。针对这一痛点,《跨境医疗措施》给予深圳一项特殊政策,使国外前沿新药在中国内地市场正式上市前,可以在深圳指定的医疗机构先行先试。目前,这项政策已经开始在深圳的部分医疗机构落地。例如,香港大学深圳医院于2021年开始试点"港澳药械通"计划,将部分临床急需、已在港澳上市,有成功临床使用经验且内地无同类注册产品的药品、医疗器械,直接引进该医院



供患者使用。同时,为促进香港与内地的医疗合作,从2022年11月1日起,香港根据国家药品监督管理局药物监管机构发出的注册证明,让已经在内地完成注册的药物,在符合香港的要求后,在香港注册及销售¹⁰⁶。

内地办医

相对于香港,在内地办医的审批流程和环节更加繁琐。 《跨境医疗措施》也鼓励港资、澳资医疗机构在深圳办 医,并通过持续优化港澳医疗机构的审批流程,大大缩 短在深圳办医的机构设置和执业登记审批的时间。截至 2022年,深圳已有11家港资医疗机构投入运营。

目前国内优质三甲医院尚未取得国际认可。全球医院评审制度是由国际保健品质协会(ISQua)设立的标准。为建设与世界接轨的医院评审标准,香港和深圳在专家的支持下,制定出一套融合国际与国家标准的"医院质量国际认证标准(2021)版",并已成功通过ISQua认证,未来将在大湾区进一步推广¹⁰⁷。未来,深圳还有望进一步提供配套政策,完善和优化内地医保在香港医疗机构使用的制度和流程,鼓励更多内地居民享受香港医疗机构提供的优质高效服务,进一步促进深圳与香港之间的医疗合作,提升整体医疗服务水平。

106 立法会: 医务卫生局局长就"推动跨境医疗合作"议员议案总结发言(只有中文), https://www.info.gov.hk/gia/general/202211/24/P2022112400413.htm

107 立法会: 医务卫生局局长就"推动跨境医疗合作"议员议案总结发言(只有中文), https://www.info.gov.hk/gia/general/202211/24/P2022112400413.htm

▶ 人才流通

由于深圳和香港地区的医疗管理体系、培养机制、考核方式和医疗习惯存在差异,高水平医学人才的流动成为提升区域内医疗质量的关键因素。

坐落于深圳的深港医学专科培训中心就是一个成功实 现深港医学人才流动的典型案例。2019年,深港医学 专科培训中心成立并意在建立与国际标准对接、具备 深港特色的专科医师培训制度。该中心由深圳市医师 协会、香港医学专科学院和香港大学深圳医院共同派 员参与,并设有常设管治委员会108。中心引入香港医 学专科学院的核心课程,组织学员赴海外培训,开展 联合培养项目,组织国际学术交流会和讲座。在2022 年,香港医管局推出"大湾区医疗人才交流计划",许 可大湾区内地城市的专科护士,在没有注册和免考职 业考试的情况下交流10-12个月。首批平均工龄8年以 上的70名护士已经安排进医院的老人科室109。随着大 湾区内跨境医疗合作的积极推进, 越来越多来自香港 的医生通过获得内地医师资格、申请短期行医等方式 取得多地执业资格。2021年,37位港籍医生获得深圳 市颁发的高级职称医生证书,成为全国首批获得该职 称的港籍医生110。这些港籍医生同时获得在内地的手 术资质也对其所在科室的研究经费申请带来积极影响。

内地就医

在香港向深圳跨境办医的过程中,通过积极引入香港 医疗资源,使在深圳的香港居民享受到优质特色的香港医疗服务。

2009年,香港特区政府实施长者医疗券计划,旨在资助年满70岁的香港长者使用私营医疗服务,作为公营医疗服务的补充。2015年,港大深圳医院成为内地首家试点医院,接受长者医疗券,合格的长者可以使用医疗券支付港大深圳医院指定门诊的预防护理、治疗和康复服务费用,但不包括住院费用和预先付费的医疗护理服务。由于医疗券以港元计价,而港大深圳医院的医疗服务费用以人民币结算,因此试点计划会根据香港政府每月更新的汇率来计算从长者医疗券户口扣除的港元金额。医院还会在负责办理医疗券申报的收费处标示当月的医疗券汇率,供长者参考。

由于新冠疫情,2020年,香港特区政府公布"香港医管局在粤患者复诊治疗服务香港大学深圳医院支援计划"。在当时的疫情防控措施下,香港复诊患者可以选择在深圳指定医院就诊。目前,深圳指定医院会在门诊医技楼大厅设有专属窗口,"香港医管局在粤患者"

可以在此挂号、缴费和取药,并配有明显的指引标识。香港患者按照指引和流程有序就诊,方便快捷。该支援计划采用"一站式服务"方式,医生在"香港医管局在粤患者专属诊室"等候患者,避免患者在不同科室之间奔波,提供更便利的就医体验。

尽管深港两地在跨境医疗已在较多领域进行拓展,但 目前仍面临一些常态化发展的挑战。例如,香港应该 如何激励名医前往深圳进行学术交流和问诊服务?深 圳又该如何利用香港在医疗管理培训上的经验来丰富 本地医院人才培养和规划?我们认为,医疗领域有待 进一步完善,并可以借鉴国际经验。举例来说, 2013年,新加坡卫生部、国立健保集团和陈笃深医 院共同投资开发HealthCity Novena项目。该项目是 由十三栋建筑组成的医疗中心,将治疗、护理、科研 和教育融入一个商业体内111。 项目选址考虑到其靠 近Newton(新加坡的重要公交交通枢纽)。Health-City Novena将医生职业发展规划(从医学院到医院/ 研究院)统一建立在同一环境中112。这不仅有利于 医疗人才之间的学术交流和合作,同时也吸引医学人 才来新加坡发展。新加坡的案例可以帮助深圳思考如 何借助香港的资源和创新结合,吸引本地和香港的医 学人才在深圳扎根。

数字化医疗趋势

在发展跨境医疗的同时,深港也非常注重数字化的发展,积极打造智慧医院。打造数字化医疗是深圳"十四五"规划的重点之一,深圳已将加快推动卫生信息化的统筹管理、信息互联互通,推动智慧医院的建设作为重要举措¹¹³。数字化医疗将对提高医疗资源的共享和利用效率、优化医疗服务流程、降低患者的就医成本和负担、改善医患沟通和协作,提升整体医疗体验等方面具有重要意义。我们注意到,深圳和香港的医院已在探索借助大数据、互联网、AI语音等信息技术,对现有医院进行数字化升级,赋能患者诊疗和医院管理。其中,较为突出的是电子健康病历的普及和先进数字化技术的应用。

▶ 电子健康病历

香港医管局和有关部门拥有丰富的电子病历实施经验。2015年香港议会通过了电子健康记录互通系统(医健通)条例,打通了公立医院与私立医院对患者健康记录档案的共享障碍,同时保证了患者信息的安全和隐私¹¹⁴。鉴于国家同时在开展"电子病历"的全

108 深港医学专科培训中心-香港大学深圳医院,http://www.hku-szh.org/xgdxszyy/wqrh/sgyxzkpxzx/index.html

- 109 幫到手! 首批交流護士在港實習溫暖順利 議員倡交流應恆常化-香港經濟導報 , jdonline.com.hk
- 110 全国首批!深圳为37名港籍医务人员颁发正高级职称证书--部门动态, sz.gov.cn
- 111 了解诺维娜健康城 | 新加坡的中央区医疗保健枢纽与区域商业中心,haoproperty.com
- 112 HealthCity Novena, https://www.ttsh.com.sg/About-TTSH/healthcitynovena/Pages/default.aspx
- 113 深圳公布一大批医疗机构建设规划,数字健康应用工程推动行业转型升级-健康界,https://www.cn-healthcare.com/article/20220427/content-569010.html
- 114 第625章 《电子健康纪录互通系统条例》,https://www.elegislation.gov.hk/hk/cap625!sc?xpid=ID_1466492943444_001

面普及,香港过往的经验可以帮助深圳乃至大湾区实现电子病历的普遍化¹¹⁵。

目前,深港已经在电子病历共同发展层面迈出了第一步。在新冠疫情期间,为解决因疫情滞留内地的香港患者复诊问题,香港特区政府推出"在粤患者复诊特别支援计划"(以下简称"支援计划"),为疫情期间滞留广东且符合条件的港籍复诊患者提供费用津贴,方便其在港大深圳医院就诊。香港电子病历在"支援计划"中起到重要作用。在获得患者同意后,"医健通"会将患者的病历副本,以加密形式发送至深圳的指定医院¹¹⁶。虽然目前只实现了局部的互通,但是未来深圳和香港也会探索扩大电子病历互通的范围,涵盖更多医院,实现两地电子病历系统的全面对接。

▶ 先进数字化技术应用

作为深港交流的重要平台,香港大学深圳医院的许多数字化创新路径可以为将来大湾区和其他地区数字化医疗提供借鉴。在医院健康管理方面,该医院推动数据的创新运用。通过信息技术,把就诊环节规范化、标准化、数字化,并将5G技术贯穿于院前、院中、院后的整个诊疗环节,加快5G在疫情预警、院前急救、实施会诊、远程手术以及医院和香港的跨境医疗等智慧医疗服务场景中的应用,打造未来创新医疗服务中心¹¹⁷。同时,医院也会把大数据应用于内部管理,打造智慧绩效考核系统。香港大学深圳医院的数字化试点有望在大湾区普及并推广到国内其他地区。

医疗产业是大湾区的重点发展领域,粤港澳大湾区在 医疗领域的潜力也不言而喻。

跨境医疗合作在大湾区的重点发展领域中占据重要地位,体现了粤港澳大湾区在医疗领域的巨大潜力。深港医疗合作的成功实践为其他地区提供了借鉴和参考,为中国医疗改革注入了新的动力和思路。

数字化医疗的联合发展是深港医疗对未来的高度期望。虽然数字化医疗概念尚未完全落地,但深港在数字化领域的协作有望加速医疗行业的发展,为患者提供更先进、更便捷的医疗服务。

随着大湾区医疗合作的深化和推进,我们可以预见到更多跨界合作、医疗技术的引进与创新、医疗资源的共享与优化。大湾区将成为一个充满活力和创新的医疗科技中心,为患者提供更广泛、更高水平的医疗选择。深港医疗的合作与发展将不断推动中国的医疗事业向前迈进,为人民的健康福祉做出更大贡献。

- 115 国家卫健委: 正在研究建立全国统一的电子病历--健康·生活--人民 网, people.com.cn
- 116 筑医台资讯—粤港电子病历首次实现跨境互通 大湾区医疗融合驶 入快车道, https://news.zhuyitai.com/21/0120/43d6d297f56c-4b39902eb850e4453a35.html
- 117 案例分享 香港大学深圳医院: 通过一体化系统推动数字化转型与智慧医院建设-中国医院协会信息专业委员会,https://www.chima.org.cn/Html/News/Articles/15960.html

Innovative collaboration in health care between Shenzhen and Hong Kong

The GBA's economy is open and vibrant. In recent years, the GBA has been exploring innovations in its health care industry. During this process, there are two particular innovative areas of development. Cross-boundary health care and digital health care are priorities in the GBA's development agenda for health care.

On the one hand, Shenzhen and Hong Kong have notable strengths to offer in their respective health care systems as two of the most representative cities of the GBA. Systemic differences are what give rise to the complementation and synergistic developments between the two cities. Hong Kong is an international health care center. Its comprehensive health care infrastructure meets the latest management practices and complies with strict international standards. Shenzhen is aspired to upgrade its health care system to meet international health care standards. An integration in this respect will further enhance Shenzhen's health care, in turn inform the development of the same in China. Shenzhen's experience in upgrading its health care infrastructure thus lends itself to the role of a strategic predecessor within the nation's overall health care agenda.

On the other hand, as Al continues to develop in theory and practice, its application in health care gradually matures. Shenzhen has been pioneering the practice of digital health care. In its 14th Five-Year Plan for the Development of the Hygiene and Healthcare Industries, Shenzhen proposes the formation of a trustworthy, shared and integrated health care database ¹⁰⁵. Hong Kong's digital health care is relatively well-developed. Along with the GBA's favorable policies, Hong Kong will help Shenzhen reach its goal of digitalizing health care.

Cross-boundary health care between Shenzhen and Hong Kong

There is an increasing awareness of healthy living and wellbeing in the GBA. Meanwhile, a progressively growing number of Hong Kong residents have been seeking opportunities in the GBA's mainland cities, thus raising the demand for high-quality health care. However, there is an ongoing issue with the relative scarcity of health care resources in the GBA. Hong Kong's high-quality health care services and well-established health care network are just the model of development that the mainland cities of the GBA need. The channeling of Hong Kong's health care resources in the GBA will help relieve the urgent demand of high-quality health care in Shenzhen.

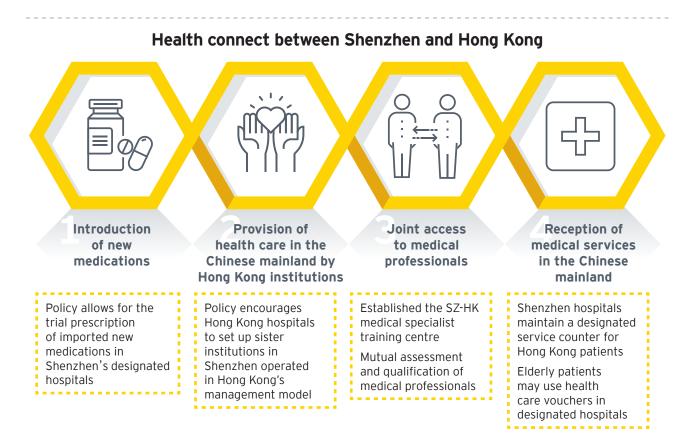
105 14th Five-Year Plan for the Development of the Hygiene and Healthcare Industries, Shenzhen Municipal Health Commission website Furthermore, Hong Kong has already nurtured the bases for research and development in pharmaceuticals with medical research expertise. It does, however, confront the problems of lacking production capacity and a small domestic market. Despite good research and development findings, they are not readily translated into practical application. The GBA, with Shenzhen as a representative city, has a relatively developed pharmaceutical production chain and a broad user market. It will serve as the testing ground for Hong Kong's medical research and development.

The different needs in the health care industries of Shenzhen and Hong Kong and their respective comparative advantages present a good opportunity for complementary development. For Hong Kong, Shenzhen's manufacturing resources will help turn its research and development into viable products. For Shenzhen and the GBA, Hong Kong is where high-quality research and development originates. National-level policy support for the synergistic development of Shenzhen and Hong Kong's health care industries is already in place, with measures that come with a clear incentive structure.

In 2018, Guangdong, Hong Kong and Macau signed the Framework Agreement on Hygiene and Health Cooperation of the Guangdong-Hong Kong-Macao Bay Area, in which it proposed that the synergistic development of health care in the GBA will proceed with two key aspects of development, namely medical professionals and institutional cooperation in health care provision.

In 2019, the State Council promulgated the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area* and put forward the idea of a healthy GBA. In terms of collaborative development, in-depth collaboration is expected. In particular, the State Council supports the main health care providers of Hong Kong in establishing sister institutions in the GBA, with the goals of establishing integrated, region-wide health care centers, enhancing the joint training of and exchanges between medical professionals, and exploring the possibility of cross-boundary referrals among designated public hospitals.

In 2021, Shenzhen promulgated the Measures on Speeding Up the Cross-Boundary Alignment of Health Services (Cross-Boundary Health Measures), which facilitates cross-boundary access to health and hygiene resources and the expedition of the local prescription of new foreign medications, so that more Hong Kong residents may receive medical care in the mainland with convenience in cross-boundary transfers.



With the support of policy incentives, the cross-boundary health care initiative already covers the four main areas of introduction of new medications, provision of health care in the mainland by Hong Kong institutions, joint access to medical professionals, and the reception of medical services in the mainland.

Introduction of new medications

Generally speaking, the adoption of foreign new medications in the domestic markets of China must be preceded by a period of clinical trials conducted on mainland patients. This results in a lag of a few years before the new medications become generally available in China. As such, mainland patients may not benefit from the latest pharmaceutical advancements. In order to address this issue, the Cross-Boundary Health Measures stipulated a new special policy, whereby cutting-edge foreign new medications may be prescribed in the designated health care providers in Shenzhen before they are approved for China's domestic markets. Currently, this measure is in effect in some of Shenzhen's health care providers. For example, the University of Hong Kong - Shenzhen Hospital (HKU-SZH) began the pilot scheme based on the Measure of Using Hong Kong Registered Drugs and Medical Devices Used in Hong Kong Public Hospitals in the Guangdong-Hong Kong-Macao Greater Bay Area. As its name suggests, this program enables the use of medications and medical devices that have been in use in Hong Kong's public hospitals with successful clinical results, but not yet in use in China. Mostly intended for urgent

Medical drugs and devices connect between Shenzhen and Hong Kong



need, the program allows for immediate adoption of these medications and devices in HKU-SZH. At the same time, in order to facilitate health care collaboration between Hong Kong and the mainland, beginning on 1 November 2022, Hong Kong may introduce, certify and sell medications that have obtained the mainland's registration certificates, which show that they have been duly certified by the National Medical Products Administration, provided that they also meet the relevant requirements in Hong Kong¹⁰⁶.

Provision of health care in the Chinese mainland by Hong Kong institutions

As opposed to Hong Kong, the approval process and requirements for health care provision in the mainland are more complex. With a view to encouraging Hong Kong and Macau-funded health care providers to provide medical services in Shenzhen and improving the approval process for the same, the *Cross-Boundary*

Health Measures have considerably reduced the approval time for institutional establishment and clinical licensing. As of 2022, there are already 11 Hong Kong-funded medical services providers operating in Shenzhen.

At the moment, China's Grade 3A hospitals are not yet recognized internationally. The global health care external evaluation system is a standard set up by the International Society for Quality Health Care (ISQua). In order to establish hospital assessments that meet international standards, Hong Kong and Shenzhen have formulated a set of criteria that meet both international and China's national standards. The cities came up with the International Hospital Quality Accreditation Standards (2021 version) after expert consultation, and it has been accredited by ISQua. It is expected to be promoted in the GBA¹⁰⁷. In the future, Shenzhen will roll out relevant policies to support this initiative, and continue to improve the systemic and procedural features of the application of mainland medical insurance coverage in Hong Kong's health care institutions, thereby enabling mainland residents to enjoy the high-quality health care services that are available in Hong Kong. A deepening cooperation between Shenzhen and Hong Kong's health care industries will raise the overall quality of health care, with significant benefits to mainland residents.

Joint access to medical professionals

There are notable differences in health care management, training requirements, examination and assessment, and medical practices between Shenzhen and Hong Kong. The joint access and exchange of highly qualified medical professionals are critical for raising the quality of health care in the region.

The SZ-HK Medical Specialist Training Centre (the Center), as part of HKU-SZH, is a classic case of success for the joint access and exchange of medical professionals between Shenzhen and Hong Kong. In 2019, the Center was established with the intention of establishing a training academy for specialist doctors that meets both international standards and the unique medical needs of both Shenzhen and Hong Kong. The Shenzhen Medical Doctor Association, the Hong Kong Academy of Medicine and HKU-SZH participated with shared professional expertise. There is also a Governing Committee for the Center¹⁰⁸. The Center incorporates the core training program of the Hong Kong Academy of Medicine, organizes overseas training for its students, develops joint training programs and holds international conventions and seminars. In 2022, Hong Kong's Hospital Authority rolled out the Healthcare Talents Exchange Programme, through which nurses in specialty fields from the GBA cities may come to Hong Kong for an exchange period of

¹⁰⁶ The Legislative Council of Hong Kong: The Health Bureau Chief's Address to Members of the LegCo on Cross-Boundary Healthcare Cooperation (Chinese only) https://www.info.gov.hk/gia/general/202211/24/P2022112400413.htm

¹⁰⁷ The Legislative Council of Hong Kong: The Health Bureau Chief's Address to Members of the LegCo on Cross-Boundary Healthcare Cooperation (Chinese only) https://www.info.gov.hk/gia/general/202211/24/P2022112400413.htm

¹⁰⁸ SZ-HK Medical Specialist Training Center, The University of Hong Kong - Shenzhen Hospital, http://www.hku-szh.org/xgdxszyy/wqrh/sgyxzkpxzx/index.html

10 to 12 months. They are exempt from registration or occupational assessments. The first cohort of 70 nurses with over eight years of experience worked in geriatric wards in Hong Kong's hospitals¹⁰⁹. As the pace of medical cooperation in the GBA accelerates, more and more registered medical practitioners of Hong Kong obtained the qualification to practice medicine in the Chinese mainland. By applying for short-term practice, they become qualified in multiple jurisdictions. In 2021, 37 Hong Kong doctors were granted the Senior Doctor Certificate by the Shenzhen municipality. They were the first Hong Kong doctors in the nation to have earned this accreditation¹¹⁰. Furthermore, being qualified as surgeons in the mainland, these doctors may be benefited in the applications for funding in their research portfolio.

Reception of medical services in the Chinese mainland

As Hong Kong extends its medical services provision across the boundary, the introduction of Hong Kong's health care resources in Shenzhen will benefit Hong Kong residents that reside in Shenzhen.

In 2009, the Hong Kong Government implemented the Health Care Vouchers Programme, which provides subsidies to Hong Kong's elderly residents aged 70 or above to obtain medical care at Hong Kong's private health care providers. This program was intended to supplement the provision of health care services by the public hospitals. In 2015, the HKU-SZH became the first pilot hospital in Shenzhen to accept the Health Care Vouchers. Eligible elderly patients may use these vouchers to pay for designated outpatient services in the HKU-SZH, covering the costs of preventive care, treatment and rehabilitative services. However, the vouchers do not cover inpatient costs or pre-paid medical care. Because the vouchers are denominated in Hong Kong dollars, and payment for the HKU-SZH are settled in the Renminbi, the pilot scheme charges the Health Care Voucher accounts with the HKD equivalent of the costs involved in accordance with the Hong Kong Government's exchange rate of the month. The exchange rate will also be displayed at the counter that handles payment for patients' easy reference.

In response to the pandemic, the Hong Kong Government announced the Special Support Scheme for Hospital Authority Chronic Disease Patients Living in the Guangdong Province to Sustain Their Medical Consultation under Coronavirus Disease in 2020. As quarantine measures during the pandemic severely restricted cross-boundary travel, Hong Kong patients may choose to receive medical care at the designated hospital in Shenzhen. Currently, the designated hospital

in Shenzhen maintains a special customer service window dedicated to the appointment, payment and prescription for Hong Kong Hospital Authority patients in Guangdong. There are clear signs on site indicating this special service. Hong Kong patients receive an orderly, convenient and efficient arrangement for their medical consultation with clear directions and procedures. The scheme operates in the manner of a one-stop service provision, whereby doctors will wait for patients in a consultation room dedicated to Hong Kong patients. This prevents Hong Kong patients from having to go back and forth between different specialties. The whole experience is closely tailored to the patients' needs.

Although Shenzhen and Hong Kong have made some significant headway in their collaboration in a number of health care services, there remains some ongoing challenges. For example, how does Hong Kong encourage top physicians to engage in academic exchange and clinical practice in Shenzhen? How does Shenzhen take full advantage of Hong Kong's experience in health care management and professional training in order to benefit the same for their local hospitals? We think that there is room for further improvement in the health care industry, and international experience may provide some critical insights. For instance, in 2013, the Ministry of Health of Singapore, the National Healthcare Group and Tan Tock Seng Hospital jointly invested in and established the HealthCity Novena initiative. This initiative consists of 13 buildings in a health care hub. The health care compound embodies medical treatment, care, research and development, and education¹¹¹. The site was selected for its proximity with Newton (an important transportation hub in Singapore). HealthCity Novena places the lifetime trajectory of a physician's career within one environment, first from medical school to hospital, then finally at a research institute¹¹². Not only does this enhance the academic exchange and collaboration amongst medical professionals, but also attracts top talent from abroad. This case study from Singapore may provide insights for Shenzhen to explore further innovative utilization of Hong Kong's resources and attract medical professionals both locally and from Hong Kong to establish their medical practice in Shenzhen.

Trends in digitalized health care

Besides cooperative initiatives in cross-boundary health care, both Shenzhen and Hong Kong have been keen to develop digital health care and create the conditions for smart hospitals. Indeed, the digitalization of hospitals is one of the key features of Shenzhen's 14th Five-Year Plan¹¹³. To this end, Shenzhen has stepped up the

¹⁰⁹ Great Help! First Exchange Nurses Arrive in Hong Kong for Practice, LegCo Member Advocates for a Permanent Programme idonline.com.hk

¹¹⁰ First in the Nation! Shenzhen Grants Senior Doctor Certificates to 37 Hong Kong Medical Personnel - Latest News of the Department sz.gov.cn

¹¹¹ Health City Novena | Singapore's dynamic healthcare precinct and regional commercial centre in central Singapore happroperty.com

¹¹² HealthCity Novena https://www.ttsh.com.sg/About-TTSH/healthcitynovena/Pages/default.aspx

¹¹³ Shenzhen Announces: Large Scale Development Plan for Healthcare Institutions, Implementation of Digital Health Application and Its Eventual Transition https://www.cn-healthcare.com/article/20220427/content-569010.html

planning, management and connectivity of health care informatics. Digital health care will promote the sharing and efficient use of medical resources, streamline medical service provision, lower the medical costs for patients, improve communication and cooperation between medical professionals and patients, and create a better experience in health care. We have noticed that hospitals in Shenzhen and Hong Kong have been exploring the use of the latest information technologies, such as big data, the internet and Al voice generator, to empower diagnostics and hospital management. At the forefront of this effort is the application of e-health records and cutting-edge digital technologies.

eHealth and electronic medical records

The Hong Kong Hospital Authority and the relevant departments have rich experience in the implementation of Electronic Health Record Sharing System (eHealth). The passage of the Electronic Health Record Sharing System Ordinance by the Legislative Council of Hong Kong in 2015 enabled the sharing of patients' health records between public hospitals and private health care service providers while ensuring the security and privacy of the patients' information¹¹⁴. As China has begun adopting the Electronic Medical Records (EMR) nationwide, Hong Kong's experience will serve as a key reference for Shenzhen and the GBA in their respective efforts¹¹⁵.

Shenzhen and Hong Kong have taken the first step in the joint development of EMR. During the COVID-19 pandemic, the Hong Kong Government rolled out the Special Support Scheme for Hospital Authority Chronic Disease Patients Living in the Guangdong Province to Sustain Their Medical Consultation under COVID-19 (Support Scheme), which provided subsidized followup consultation services at HKU-SZH for eligible patients who were in Guangdong Province. With this development, eHealth rose to the occasion. After obtaining the patient's consent, eHealth will send an encrypted copy of the patient's medical record to the designated hospital in Shenzhen¹¹⁶. Although the connectivity is limited in scope, Shenzhen and Hong Kong will continue to explore further enhancement of connectivity for electronic medical records in the future, including the expansion of the coverage to more hospitals. There will also be a complete alignment of the electronic medical record systems between Shenzhen and Hong Kong.

Application of advanced digital technologies

As an important platform for mutual exchange between Shenzhen and Hong Kong, the HKU-SZH has

been the trailblazer in digitalization, providing useful reference for the health care industry in the GBA and beyond. For hospital management, HKU-SZH has implemented innovative application of digital data. By using information technologies, clinical diagnosis is streamlined, standardized and digitalized. Furthermore, there has been a comprehensive introduction of 5G technology throughout the clinical assessment process. 5G adoption has been accelerated in health care services, such as early warning of pandemic, emergency care, consultation, remote surgery and the cross-boundary health care between the hospital and its Hong Kong counterparts. These are the latest contexts in which smart health care has been implemented, and the experimentation will create ripe conditions for the innovative health care of the future¹¹⁷. Meanwhile, the hospital has also applied big data in its internal management, particularly in creating smart systems for performance appraisal. The trial digitalization at HKU-SZH is likely to be replicated in the GBA and other regions in China.

The health care industry is a key area of development for the GBA. It goes without saying that the GBA bears enormous potential in health care innovations.

Cross-boundary health care cooperation lies at the forefront of the GBA's key area of development. It is where the enormous development potential of the GBA will be put to new contexts of experimentation. Successful cooperation between Shenzhen and Hong Kong in the health care industry will guide the course of development in other regions. It will become the source of motivation and innovative approach for China's health care reforms.

Looking forward, both Shenzhen and Hong Kong pin great hopes on joint digitalization initiatives in health care. Although the overall concept of health care digitalization is not yet mature, Shenzhen and Hong Kong are well-positioned to speed up their cooperation in health care in the future, with the ultimate objective of providing more advanced and convenient medical services to patients.

As the health care industry in the GBA continues to foster mutual ties, we foresee more opportunities for cross-boundary collaboration, cross-introduction of latest technologies and techniques in medicine, and optimization of shared medical resources. The GBA will become a vibrant health care hub that thrives on innovations, offering broader and higher-quality medical choices for patients. The continuous cooperative efforts between Shenzhen and Hong Kong's health care providers will have significant implications for nationwide developments and important contributions to the health and wellbeing of the Chinese people.

¹¹⁴ Cap. 625, Electronic Health Record Sharing System Ordinance https://www.elegislation.gov.hk/hk/cap625!sc?xpid=ID_1466492943444_001

¹¹⁵ The National Health Commission: Ongoing Research on the Establishment of a Unified Electronic Medical Records System people.com.cn

¹¹⁶ Zhuyitai - First Implementation of Cross-Boundary eHealth between Guangdong and Hong Kong, Fast Track for Healthcare Integration in the GBA https://news.zhuyitai.com/21/0120/43d6d297f56c4b39902eb850e4453a35.html

¹¹⁷ Case Study - HKU-SZH: A Unified System Promotes Digital Health Transition and the Establishments of Smart Hospitals, CHIMA https://www.chima.org.cn/Html/News/Articles/15960.html

基建通 Infrastructure Connect

深港基础设施互联互通

深港两地是引领粤港澳大湾区发展的前沿阵地。根据《北部都会区发展策略报告书》,两地将以港深接壤地区"两湾一河"(深圳湾、大鹏湾、深圳河)的地理形态,构建"双城三圈"(深圳湾优质发展圈、港深紧密互动圈和大鹏湾/印洲塘生态康乐旅游圈)的空间结构,以推动两地创新科技、消费、文旅等产业的融合发展。2023年2月14日,深圳市市长在《政府工作报告》中提出深圳将继续深化深港澳的更紧密合作,主动对接香港北部都会区发展策略,携手建设世界级湾区、发展最好的湾区。



图片来源: 北部都会区发展策略报告书

《粤港澳大湾区发展规划纲要》指出,要加强基础设施建设,畅通对外联系通道,提升内部联通水平,推动形成布局合理、功能完善、衔接顺畅、运作高效的基础设施网络,为粤港澳大湾区经济社会发展提供有力支撑。深港基础设施全面合作以来,在交通互联、信息网络互通、能源保障和大湾区水资源共享等方面紧密协作,新项目基建的体量和数量较国内其他地区遥遥领先。如此宏大的基础设施开发,不仅需要强大的投资力量和技术支持,更需要深港两地在政策、法律制度协调和人才培养等方面加强合作。以下将从多个角度对深港基础设施发展进行探讨,全面展示深港融合基建通的重要性和挑战。

交通运输体系互联互通

2018年9月,高铁香港段开通,香港连接进入国家高铁网络,14分钟即可从香港直达深圳福田;2019年,高铁香港段每日平均乘客量超过54,000人次,周末平均乘客量超过65,000人次;2020年8月,莲塘/香园围口岸启用,作为深港边界第七个陆路口岸,备有"人车直达"设施,连接深圳东部过境高速,预计每天可处理车辆17,850架次,旅客30,000人次。高强度的客货跨境量突显了深港之间的密切联系及互联互通的重要性。2021年10月,深港两地政府成立港深跨界轨道基础设施建设专班,其中,港深西部铁路(洪水桥至前海)的次阶段研究已经展开,预计2024年年中完成。

2019年(疫情前)深港客货跨境量

60.8

↓。 万辆 2,040

日均客流总量

日均交通量

陆路货运吞吐量

未来,深港将在港口、机场、综合运输通道、快速交通网络、客货运输服务等方面深入合作,也迫切需要解决以下两个关键问题:

- (1) 互联互通基础设施项目面临规划协调难度大、运作机制难统一、技术标准难一致等挑战。
- (2) 深港互通枢纽投资规模巨大,如何通过市场化模式筹集资金,缓解财政投入压力是深港两地政府均须 探索解决的问题。

拓展洞见

增强深港协调衔接力度,加快两地互联互通,具体包括以下方面:

- 创新深港协调衔接机制。在政策、规划、标准等层面形成一体化顶层设计,并共同推动落实;
- 推动深港互通重大项目落地。高位推动项目实施, 合并或优化审批流程;加快有关深港口岸衔接的轨 道交通项目建设,优化深港跨境货运布局、降低货 运对城市中心区口岸资源的占用;
- 搭建跨区域智慧交通平台。通过整合深港区域的智慧城市体系,共同搭建深港智慧互通大数据平台,为项目的规划、决策及精细化管理提供数据支撑,为后续实现深港交通"一卡通"、智慧物流、智慧清关等便利措施做好铺垫。

创新开发机制,落实资金来源,具体而言:

- 创新联合运营机制,提高枢纽交通效率。对于承担深港衔接功能的口岸型互通枢纽(例如罗湖、机场等口岸以及未来深港西部铁路枢纽),建立健全互通枢纽内部场站开发协调机制,结合各方需求,形成权责明晰、协同性强、投入和收益分配科学合理的综合枢纽联合建设运营机制,提高交通衔接能力和枢纽运营效率。
- 创新规划用地机制,提高土地利用效率。开展枢纽与产业空间融合规划用地制度创新,综合考虑深港两地开发主体的需求,通过用地性质兼容、一体化设计等方式,为深港互通枢纽上盖及周边的综合高强度开发创造条件,缓解土地紧张问题。

▶ 创新投融资模式,拓展资金来源。秉承综合开发和 动态平衡的理念,在规划设计阶段就纳入投融资分 析,明确资金来源;探索通过场站建设与商业开发 权及土地使用权同步招标等方式引导社会资本投入, 缓解政府的资金压力;通过深港政府联合投入、深 港企业市场化合作、政府与社会资本合作以及房地 产投资信托基金(REITs)等模式,形成枢纽及周 边区域开发的投融资良性循环。

信息基础设施的互联互通优化提升

深港的信息基础设施建设均处于较高水平。2022年3月,深圳市人民政府办公厅印发了《深圳市推进新型信息基础设施建设行动计划(2022-2025年)》,旨在到2025年底基本建成新型信息基础设施供给体系,使深圳成为全球领先的新型信息基础设施标杆城市。该计划的目标是建设泛在先进、高速智能、天地一体、绿色低碳、安全高效的信息基础设施。这表明深圳正在致力提升城市的数字化、智能化水平,并为未来的科技创新和发展打下坚实基础。

香港在信息技术方面成就显著。根据香港特区政府资讯科技总监办公室的统计数据,香港目前运营着12个对外海底通讯光缆系统、23条陆上光缆和9个通讯卫星,连接世界各地。此外,香港宽带网络几乎覆盖全港商业和住宅楼宇,家庭使用宽带接入普及程度高达99.5%。这些数据表明香港具有广泛、先进的通信设施。

深港未来的信息化互联将着力在新一代信息基础设施 建设、新型智慧城市试点示范、网络安全保障等方面 进一步深化合作,需要打通市场壁垒和信息流通限制 ,以确保信息安全,并在以下领域实现全面提升:

▶ 5G基础设施建设

5G作为数字化经济的重要基础设施,对智慧城市、智能制造、自动驾驶、远程医疗等各行业的数字化转型和升级起到重要推动作用。深港两地虽在5G科研领域合作不断,但仍在产业链、技术应用和运营层面存在薄弱环节。例如:在5G网络设备芯片方面仍存在"卡脖子"问题,在消费领域仍缺乏革命性的"杀手级"应用场景,在边境信号干扰、长途漫游等方面仍存在不足之处。

▶ "数字湾区"一体化建设

香港在全球数据中心市场排名靠前,而深圳作为广州和深圳之间协同发展的"双子星",也在数据中心市场迅速发展。然而,两地在政治、经济、法律、文化等方面体现出较大的差异性和多样性,在基础架构和数据标准方面也不尽相同,这对数据资源的跨越式融合互通造成巨大挑战,但同时也为未来数据打通后所能带来的"数据红利"以及经济增长带来巨大想象空间。

人工智能基础设施建设

人工智能技术被称为继电力技术、互联网技术之后最大的一波技术浪潮,成为驱动新一轮科技革命的重要力量。香港拥有16个国家重点实验室、6个国家工程技术研究中心,基础科研力量不可小觑;深圳拥有1,600多家人工智能企业,其中,超过60%专注于场景应用,在智能硬件、计算机视觉、自动驾驶、智慧金融、智慧医疗等领域的"AI+应用"发展全国领先。然而,随着OpenAI的语言模型快速升级迭代,ChatGPT在多场景、多领域的应用潜力引起全社会广泛热议,也引发国内AI行业的深刻反思,探索如何实现快速赶超。

▶ 工业互联网基础设施建设

深港两地可以垂直整合产业链,打造全产业工业互联 网平台,为产业发展创造新的动能,支撑经济高质量 发展。深圳和香港都具备雄厚的工业基础、完备的产业链和领先的信息基础设施,可以抓住升级转型的契机,积极推进工业互联网的发展。此外,在新能源汽车充电桩、轨道交通和智慧电网领域,深港两地还有广阔的市场空间和合作潜力,可以进一步打通智慧交通网、智慧能源网,实现基础设施、人文交流、资金流通、产业发展等方面的互联互通。

城市绿色发展的互联互通

二十大报告指出,"推动经济社会发展绿色化、低碳化是实现高质量发展的关键环节"。城市的绿色低碳发展将通过技术进步、提升效能等手段,降低资源消耗和污染物排放,减少温室气体和对自然生态破坏,形成资源高效、排放较少、环境清洁、生态安全的高质量发展格局。

基础设施节能减排是实现城市绿色发展目标的重要举措,深港在绿色发展方面的协同既为深化两地绿色产业合作交流提供了机会,同时也为城市可持续发展赋予了能量。

生态环境保护的携手并进

城市绿色发展离不开生态环境的可持续。从西向东,深港接壤和隔水相邻的部分包括深圳湾、深圳河、陆地边界和大鹏湾,是密不可分的生态体系。两地将联合开展深圳湾整体保护修复、深圳河综合整治,协作保育和提升深圳湾内湿地(香港米埔自然护理区)和红树林(深圳福田红树林自然保护区)的自然景观,构建梧桐山/红花岭/八仙岭生态走廊,且双方已于2023年1月签订深圳湾(后海湾)湿地保育合作框架协议。

深港的地理形态决定了两地构建生态共同体的必要性,建议双方建立统一的生态账户,共同规划、共同管理,加速从协调机制向共同治理机制转变,为深港两地打造生态环境友好城市创造机遇。

促进可再生能源的共同发展

能源的绿色发展是城市可持续发展的重要一环。香港在2010年就提出大幅减少依赖化石燃料,推出可再生能源发展计划。在能源消费方面,香港走在发达城市前列,在高经济产出的同时,能耗保持下降趋势,能源利用率程度非常高。深圳的新能源(包括核能与可再生能源)的装机占比超过78%,绿电的适用范围更加广泛,同时,政府大力推动新型电力系统建设,在"碳普惠"应用、虚拟电厂、数字电网方面均有创新发展,为搭建绿色能源平台走出"深圳特色"。

电力行业的减碳是深港两地的共同追求目标,深港两地应在技术研发、基础设施建设、电力交易等方面进行全面合作;以深港科技创新合作区为平台,加速布局新能源产业,推动深港两地在该产业技术创新和研发上的深入合作;研究海上发电的可行性,建立共用共享机制,保障两地能源安全,推动能源消费结构转型,加快实现低碳发电目标。

绿色建筑标准的互认互通

现阶段,深圳和香港两地均出台了有关于绿色建筑的条例。自2022年7月开始施行的《深圳经济特区绿色建筑条例》强调了对于新建建筑、大型公共建筑和国家机关办公建筑、既有建筑的建设和运行的绿色建筑标准要求。而香港早在1998年就已推出自愿参与的《香港建筑物能源效益注册计划》,为进一步推广建筑物能源效益,当局制定了《建筑物能源效益条例》,并于2012年全面实施,截至目前,所有受《条例》管辖的建筑物均已达到最低能源效益要求。

现阶段,应考虑以深港两地主要建设任务为试点,加强两地绿色建筑标准化建设体系的研究,推动两地绿色建筑标准的互认和统一,为深港"双城三圈"节能减排,打造绿色、可持续、智慧的社区打下坚实基础。

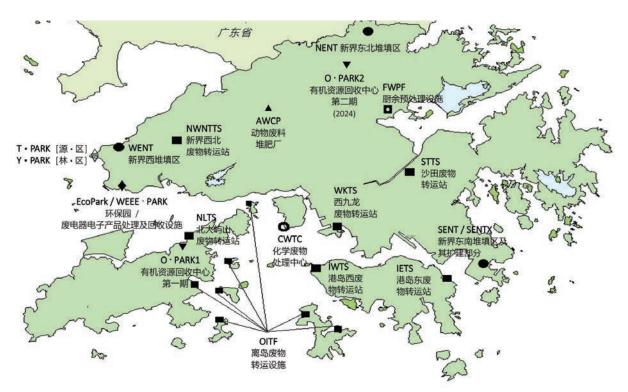
循环资源利用的互惠互利

废弃物的转废为能和循环利用是节能减排、绿色发展的重要一环。深圳市作为"无废城市"试点,2022年生活垃圾回收利用率达到47.2%,现已实现原生生活垃圾100%无害化处理,基本实现全量焚烧、趋零填埋。香港仍以垃圾填埋为主要的垃圾处理方式,2021年都市固体废物回收循环利用率31%。其三个堆填区有两个位于新界,临近深圳。

对于香港和深圳这类土地资源紧张的城市,生活垃圾无害化、减量化和固体废弃物循环利用化及跨区域处置补偿机制可有效破解"无处可填""土壤污染""邻避效应"等问题,促进两地和谐共融,实现城市节能减排、居民环境宜居。

▶ 城市绿色发展赋能经济高质量发展

推动深港"双城三圈"在绿色发展方面统一规划,建立统一的区域内生态系统生产总值(GEP)指标体系,推动区域经济与生态协调发展。在规划项目时,融入生态环境导向开发(EOD)理念,以环境保护法律法规、绿色建筑标准、环境-社会-治理(ESG)披露准则等为监管手段,以绿色基础设施建设为引导,打定"社区宜居""环境宜业""景色宜游"的融合城市圈。粤港澳是中国最具有代表性和竞争意义的重点区域。在交通运输体系、信息基础设施以及城市绿色发展的互联互通,将加速深港创新圈和深港经济增长,建设湾区两种制度、三个关税区、三个货币的异质城市群,实现大湾区要素便捷流通、现全球经济科技制高点并拥有核心竞争力的使命担当。



图片来源: 香港特别行政区政府环境保护署

Shenzhen and Hong Kong are the leading frontiers of development in the GBA. According to the *Northern Metropolis Development Strategy Report*, Shenzhen and Hong Kong shall draw on the geological endowment of "Two Bays, One River", which consists of the Shenzhen Bay, Dapeng Bay and Shenzhen River, to fulfil the spatial vision of "Twin Cities, Three Circles". The "Three Circles", namely the Shenzhen Bay Quality Development Circle, the Hong Kong-Shenzhen Close Interaction Circle and the Mirs Bay/Yan Chau Tong Eco-recreation/tourism Circle, are expected to play a key role in the integrated development of innovation and technology, consumption, and culture and leisure, etc. On 14 February 2023, the mayor of the Shenzhen Municipality stated in his *Government Work Report* that Shenzhen will continue to deepen cooperation with Hong Kong and Macau and adopt a proactive approach in implementing the corresponding developments of the Northern Metropolis. Together, Shenzhen and Hong Kong will make the best of the GBA with world-class features.



Source: Northern Metropolis Development Strategy Report

The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area sets out the ultimate objective for the construction of infrastructure and facilities in the GBA. The enhancement of both outbound and internal connectivity, along with a soundly-designed, fully-functional, smoothly-aligned and highly-efficient network of infrastructure facilities, will be the backbone of economic and social developments in the GBA. Since Shenzhen and Hong Kong began their unswerving efforts in infrastructure construction, significant developments have taken off in the areas of transportation connectivity, mutual access to information network, the safeguard of energy sources and the sharing of GBA water resources. Be it in scale or in quantity, these new infrastructure projects are unmatched in other regions of China. Construction

in such multitude and magnitude requires not only enormous capital input and technical expertise, but also enhanced cooperation between Hong Kong and Shenzhen in policy coordination, legal system as well as talent training.

The below is a multipronged analysis of the infrastructure development in Shenzhen and Hong Kong, highlighting its importance and challenges.

Transportation connect

In September 2018, the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link opened. Hong Kong's railway system becomes linked to the nation's high speed railway network. For just 14 minutes, travelers can arrive in Futian of Shenzhen

from Hong Kong. In 2019, the Hong Kong Section of the Express Rail Link had an average daily patronage of more than 54,000. On weekends, the average patronage was over 65,000. In August 2020, the Heung Yuen Wai Control Point commenced service. It is the seventh land boundary crossing in Hong Kong. Some key features of the Heung Yuen Wai boundary crossing are that drivers of private cars may drive through the checkpoint and the roadways at the boundary crossing are connected to Shenzhen's Eastern Transit Expressway. The control point is

designed to handle 17,850 vehicle trips and 30,000 passenger trips daily. The high cross-boundary traffic volume highlights the importance of connectivity in infrastructures between Shenzhen and Hong Kong. In October 2021, the two governments set up the Task Force for Hong Kong-Shenzhen Cooperation on Cross-Boundary Railway Infrastructure. The second stage of the study on the Hong Kong-Shenzhen Western Rail Link (Hung Shui Kiu to Qianhai) has commenced and is expected to be completed by the middle of 2024.

Pre-pandemic volume for cross-boundary passenger and cargo passage in 2019

608,000 visit

Daily average of pessaenger passage

19,000 vehicles

Daily average of traffice volume

20.4 million metric tonnes

Cargo throughout by land

In the future, Shenzhen and Hong Kong will be collaborating further in many areas, including ports, airports, comprehensive external transport links, rapid transport networks, and passenger and cargo transport services. However, there is an urgent need to address the following two critical issues:

- 1 Infrastructure connect projects face challenges such as difficulties in coordination, differences in operation systems and inconsistency of technical standards.
- 2 The transportation connect between Shenzhen and Hong Kong involves enormous capital investment, as such both governments must seek possibilities in market financing in order to alleviate the pressure on the fiscal budget.

Some insights for future development

Increase linkage between Shenzhen and Hong Kong to enhance interconnectedness, in particular:

- Engage in innovative approaches of coordination between Shenzhen and Hong Kong, with integration in policies, planning and standards at the top level followed by joint promotion and implementation.
- Promote and implement major Shenzhen-Hong Kong connectivity projects. Promote project implementation and improve the approval process by merging and optimizing the procedures; accelerate the construction of transportation projects that link up the ports between Shenzhen and Hong Kong, improve the conditions of cross-boundary cargo traffic, and reduce the use of port resources in urban centers.
- Build a cross-regional smart transportation platform. By integrating the smart city infrastructures of Shenzhen and Hong Kong, the two cities can build an interconnected big data platform, which will support the planning, policy-making and management of the infrastructure projects. It will be the foundation for further developments of "Yikatong" (or

transportation smart card), smart logistics, smart customs clearing, etc.

Innovate development mechanisms to secure capital investments, in particular:

- Innovate joint operation models and raise the efficiency of the transportation hubs. For boundary checkpoints that serve both hub and connectivity functions (such as the Luohu checkpoint, Shenzhen airport checkpoint and the planned Hong Kong-Shenzhen Western Rail Link hub), establish a concerted coordination mechanism for the development of intra-hub stops. Create a joint operation model for constructing and running comprehensive transportation hubs with a clear division of labor, strong synergies and a reasonable rate of return on investment. Improve the connection capability and the operational efficiency of the transportation hubs.
- Innovate land-use planning mechanisms and raise land-use efficiency. Introduce innovative land-use approaches that integrate the hub with industrial development. Thoroughly consider the interests of both Shenzhen and Hong Kong. Innovative land use encompasses multiple purposes and integrated

- designs. The available space is developed fully by enhancing the combined space at the hub's top-side development and at its periphery. This will in turn alleviate the shortage of land supply.
- Innovate investment and financing models to expand capital channels. To strike a balance between development and capital needs, the investment and financing analysis must be included in the project's planning phase to ensure the source of funding. Private capital for terminal construction may be attracted by a simultaneous bidding process for commercial development rights and land-use rights, thereby easing funding pressures on the government. With joint investments from the two governments, market-oriented cooperation between Shenzhen and Hong Kong's enterprises, the use of Public Private Partnerships and Real Estate Investment Trusts (REITs), a robust investment and financing cycle for the development of transportation hubs and the surrounding areas can be formed.

Information infrastructure connect

The information infrastructures of Shenzhen and Hong Kong had a head start. In March 2022, the People's Government of the Shenzhen Municipality published The Action Plan for the Promotion of New-Type Information Infrastructure for the Shenzhen Municipality (2022-2025), in which it envisioned that the supply infrastructure for new-type information will be completed by 2025, positioning Shenzhen as a world-leading benchmark city in new-type information infrastructure. The goal of this proposal is to construct an information infrastructure that is ubiquitous, advanced, smart, high-speed, uniform, low-carbon and green, safe and reliable. This shows that Shenzhen has been dedicating its efforts in digitalization and smart urban construction, both of which are the solid foundation for the city's innovation and technology developments in the future.

Similarly, Hong Kong has remarkable accomplishments in information technology. According to the statistics of the Office of the Government Chief Information Officer, there are currently 12 operating external submarine optical fiber cable systems, 23 overland optical fiber cables and nine communications satellites connecting Hong Kong with places around the world. Furthermore, Hong Kong's broadband network provides near-complete coverage of commercial and residential buildings within its territory. The household broadband penetration rate is 99.5%. These data show that Hong Kong's information and communications technology is very advanced with wide coverage.

The information infrastructure connect between Shenzhen and Hong Kong will focus on a few areas, namely new-type information infrastructure, new-type smart city pilot scheme and network security protection. There is a need to open up market access and information flow to ensure information security and develop information infrastructures.

5G infrastructure

As an important basis for digital economy, 5G is a catalytic driver for a wide array of digital transformation such as smart cities, smart manufacturing, autonomous driving and remote medicine. Although there has been close collaboration between Shenzhen and Hong Kong in the 5G arena, current efforts remain weak in terms of production chains, technological application and operation. For example, the availability of the microchips that are critical for 5G network equipment is constantly subject to unfavorable political developments abroad. There is yet a "killer application" scenario in the consumption end. There also remains weakness in signal interference at the boundary, and long-distance roaming.

Digital GBA – Integrative development

Hong Kong ranks high in the global data center market. Driven by the synergistic cooperation with Guangzhou, Shenzhen has also developed its data center market rapidly. However, there are differences between the two cities in politics, economies, legal systems and cultures. These differences are reflected in their basic infrastructures and data standards. As such, there are enormous challenges for cross-territorial integration in data resources. Yet, the situation also presents a wealth of possibilities. An imaginative solution to these challenges in data connectivity will generate positive spillover effects and drive economic growth.

Artificial intelligence infrastructure

Al technology is often seen as the biggest wave of technological evolution after electricity and the internet. It will be the driving force for a new round of technological revolution. With 16 State Key Laboratories and six branches of Chinese National Engineering Research Centers, Hong Kong has a strong foundation in research capability. Shenzhen has more than 1,600 Al enterprises. Amongst them, 60% operate mainly in application scenarios, computer vision, automated driving, smart finance and smart medicine. However, just as OpenAI's language model is upgrading rapidly, ChatGPT steals the show with its diverse applicability in multiple scenarios and sectors. There has been some soul-searching in China's Al industry, in how AI may pick up the race again and regain its market prominence.

Industrial Internet infrastructure

Shenzhen and Hong Kong may consider a vertical integration of their production chains. The establishment of Industrial Internet that covers the full production process will drive innovations and support high-quality development of the industries. Both Shenzhen and Hong Kong have strong traditions in industries with full production chains and advanced information infrastructures. Industrial Internet presents the opportunity for industry upgrade and transition. Furthermore, there is ample room for

market development in new energy vehicle charging stations, rail transportation and smart power grids, as such collaborative efforts will certainly result in the development of smart transportation and energy networks. These advancements in information infrastructures will enhance connectivity in infrastructural facilities, cultural exchange, capital flow and industries.

Green city connect

The Report to the 20th National Congress of the Communist Party of China affirms the vision of green development, stating that "a green and low-carbon economy and society are crucial to high-quality development". Green and low-carbon cities reduce resource wastage, pollution, greenhouse gas and damages to the environment by introducing technological and efficiency advancements. Several factors indicate the favorable conditions for high-quality development, including high energy efficiency, low emission, clean environment and biosecurity.

Energy-saving for basic infrastructures is a key measure for green city development. The cooperation between Shenzhen and Hong Kong in the green initiative not only provides the opportunity for exchange between their respective green industries, but also powers the sustainable development of their urban space.

Concerted efforts in ecological protection

Sustainability in ecology and environment goes hand in hand with green city development. From the west to the east, Shenzhen and Hong Kong neighbor each other on an expanse of land separated by the waters of Shenzhen Bay, Shenzhen River and Dapeng Bay, with a strip of land boundary in between. An ecological system thrives in this area. The two cities are making concerted efforts in the conservation and restoration of Shenzhen Bay, the regulation of the Shenzhen River, the conservation and improvement of the natural landscape of wetlands in Shenzhen Bay (the Mai Po Nature Reserve), the mangroves in Futian (Futian National Mangrove Nature Reserve), and the Wutong / Robin's Nest / Pat Sin Leng ecological corridor. The two governments signed a framework agreement for the conservation of Shenzhen Bay (Deep Bay) wetlands in January this year.

This shared natural heritage brings Shenzhen and Hong Kong together in addressing ecological issues. It is suggested that Shenzhen and Hong Kong take joint account of the state of the environment, and plan, manage and coordinate their efforts. Eventually, the governance of this shared ecology should be done jointly, so that both cities may become environmentally friendly cities.

► Facilitate joint development of renewable energy

Green development of energy is an important aspect of sustainable city development. Since 2010, Hong

Kong has proposed a substantial reduction on the city's reliance on fossil fuels and rolled out the plan for renewable energy. In terms of energy consumption, Hong Kong is ranked high amongst developed cities. Its high economic output is coupled with a decreasing trend in energy consumption, indicating a very high level of energy efficiency. In Shenzhen, the new energy (including nuclear and renewable energy) installation ratio exceeds 78%, with an even wider application of green power. At the same time, the government has also promoted innovative initiatives, such as the construction of new electricity systems, the application of carbon reduction incentives (Tanpuhui) scheme, virtual electricity plants and digital power grids. These are the unique features of Shenzhen's green energy platform.

Both Shenzhen and Hong Kong have set their sights on carbon reduction in energy industries. The cities have cooperated extensively on areas such as technological research and development, construction of basic infrastructures and power trade. The Shenzhen-Hong Kong Innovation and Technology Cooperation Zone is the basis upon which speedy development can be made in new energy industries. The two cities will cooperate further in the technological innovations and research and development aspects of the industry there, as well as exploring the feasibility of marine energy, establishing energy-sharing mechanisms, protecting the energy security of the respective cities, and promoting the transition of energy consumption structure, etc. These measures will encourage low-carbon power generation.

Mutual recognition of green building standards

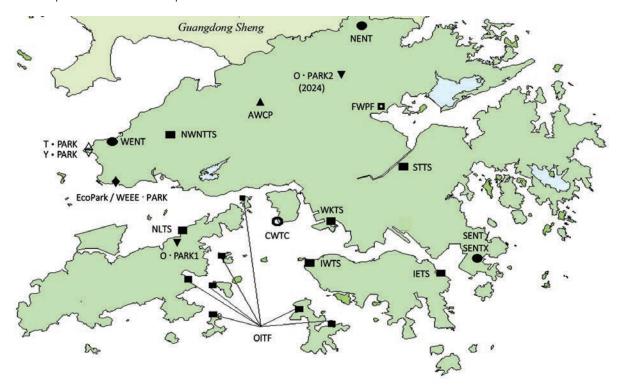
Currently, both Shenzhen and Hong Kong have set forth laws and regulations to govern green buildings. The Regulations of the Shenzhen Special Economic Zone on Green Buildings came into effect in July 2022, stipulating the green building standards and requirements for newly constructed buildings, large public use structures, the buildings of national government bodies and the facilities and operation of existing buildings. For Hong Kong, the *Energy Efficiency* Registration Scheme for Buildings was rolled out as early as 1998, and it was carried out on the basis of voluntary participation. In order to further promote the energy efficiency of Hong Kong's buildings, the Hong Kong Government passed the Buildings Energy Efficiency Ordinance of Hong Kong, which became effective in 2012. As of now, all buildings that are within the jurisdiction of the Buildings Energy Efficiency Ordinance of Hong Kong have already met the stipulated energy efficiency requirements.

It is suggested that the main construction projects in the two cities to be designated pilot sites for green and sustainability initiatives. Research in the standardization of green building construction requirements will promote the mutual recognition and unification of green building standards in Shenzhen and Hong Kong. As the "Twin Cities, Three Circles" save energy, reduce carbon emissions, turn green and become sustainable, smart communities will form in harmony with nature.

Mutually beneficial use of recycled resources

Waste-to-energy and recycling are part and parcel of green development. Shenzhen is a pilot site for the

"waste-free city" initiative. In 2022, the recycle and reuse rate of common waste reached 47.2%. As of now, the goal of conducting 100% non-hazardous treatment on waste has been accomplished by practicing full incineration and no landfill. In Hong Kong, the landfills remain the primary means for waste disposal. In 2021, solid waste recycling and reuse reached 31%. Of the three landfills, two are located in the New Territories and close to Shenzhen.



Source: Environmental Protection Department of the Government of the HKSAR

It is no news that both Shenzhen and Hong Kong confront the problem of scarcity in land supply. Issues such as "no more space in the landfills", "soil pollution" and "not in my backyard" may be addressed effectively with detoxification treatments, waste reduction, recycling and reuse of solid waste and the "polluter pays" compensatory mechanism. This aspect of integration between Shenzhen and Hong Kong brings about harmony in their official relationship and elevates the sense of wellbeing for the city dwellers.

Green city development powers highquality development

As a vision, the "Twin Cities, Three Circles" is accommodative to innovative policy initiatives, such as centralized planning, a uniform regional index for Gross Ecosystem Product (GEP), and a concerned and coordinated approach in economic development and its relationship with ecology. To this end, Ecology Oriented Development (EOD) should serve as guidance in devising regulatory measures, such as environmental

protection legislation and regulations, green building standards and ESG disclosure requirements. Green infrastructure lies at the foundation of ecology and environmental protection. It powers high-quality regional development, which is manifested in well-integrated cities with livable communities, suitable work environments and the aesthetic qualities that draw many travelers.

The GBA may well be the nation's most representative and ambitious development project to date. Connectivity in transportation systems, information infrastructures and green city development will generate economic growth in Shenzhen, Hong Kong and their joint innovative zones. The differences in the economic, legal and political structures amongst the GBA cities should be carefully navigated in policymaking, and governments should create the conditions for the free flow of capital and talent, highly efficient resource allocation and synergies in industry clusters. For all eyes are on them as the torchbearers for China's future as a technology giant.

人才及创业通

Talent and Entrepreneur Connect

2019年2月18日,《粤港澳大湾区发展规划纲要》颁布。整体来说,至今的四年间,广东省和大湾区内各城市均因地制宜,积极出台符合城市优势和特色的人才和创业支持政策。

疫后通关以来,大湾区人才跨境流动恢复常态,作为"双循环"的排头兵,深港人才融合加速,两地积极推进多领域合作,优化人才资源配置,助力粤港澳大湾区高水平人才高地建设。以下将聚焦深港两地,围绕深港人才及创业互联互通展开讨论。

人才培养

人才供需现状、趋势及挑战

人才现状

需求端: 高学历人才需求提升,技术研发类人才 需求量最大

数字经济下,创新成为引领发展的第一动力,核心技术高质量人才亟待补充。2021年广东省发布的《紧缺人才目录》显示,高学历与科技创新类人才需求持续上升,其中,产品开发师、软件工程师需求位居前列¹¹⁸。2023年一季度香港公布的人才清单中,亦明确鼓励引进人工智能专家、数据科学家等创新科技类人才¹¹⁹,作为信息与通信技术(ICT)、先进制造等战略新兴产业的重要驱动力,驱动数字经济的可持续发展。

人才需求高学历占比



数据来源:《2020年粤港澳大湾区(内地)急需紧缺人才目录》, 广东省人力资源和社会保障厅,http://hrss.gd.gov.cn/gkmlpt/content/ 3/3490/mpost_3490754.html#1274;

大湾区需求岗位清单

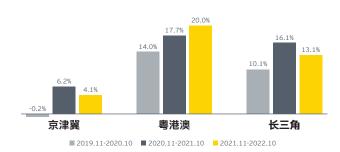
内陆需求排名前三岗位	香港创新技术需求岗位	
产品开发师	人工智能专家	云端基础设施 专家
渠道经理	数据科学家	软件专家
软件工程师	创新及科技专家	网络安全专家

数据源:《2020年粤港澳大湾区 (内地) 急需紧缺人才目录》,广东省人力资源和社会保障厅,http://hrss.gd.gov.cn/gkamlpt/content/3/3490/mpost_3490754.html#1274; "人才清单创新科技",香港政府官网,https://www.talentlist.gov.hk/sc/iso7.html,2023年

供给端:人才吸引力不断加强,深港人才优势具有差异

人才需求日益提升,识别并保障人才供给成为核心议题。大湾区人才增幅连续3年提速¹²⁰,人才吸引力持续增强,基本形成人才引领产业、产业集聚人才的良性循环,如深圳人才优势集中在ICT、制造业,香港金融人才充沛,深港两地人才优势差异显著,可实现互补、合力发展。

不同城市群近三年人才增长



数据来源:《2020年粤港澳大湾区人才发展报告》,2020年, 猎聘,安永分析

- 118 《2020年粵港澳大湾区 (內地) 急需紧缺人才目录》,广东省人力资源和社会保障厅,http://hrss.gd.gov.cn/gkmlpt/content/3/3490/mpost_3490754.html#1274;香港统计局,https://www.dsec.gov.mo/zh-CN/Statistic?id=302;澳门统计局,https://www.censtatd.gov.hk/sc/web_table.html?id=215-16001;安永分析
- 119 "人才清单创新科技",香港政府官网,https://www.talentlist.gov. hk/sc/iso7.html, 2023年
- 120 《2022年粤港澳大湾区人才发展报告》,2022年,猎聘

人才趋势

随着技术发展与产业调整,新兴技术人才、数据合规人才、战略新兴产业人才的需求将持续提升

如前所述,人才需求因数字经济被重新定义。一方面,传统产业升级、新兴产业壮大,相关人才需求扩大。如2021年7月,民建联议员发布"香港工业4.0"¹²¹以改善产业空心化、单一化问题,但当前香港工程技术人才流失问题凸显¹²²,亟需补充智能制造等新兴产业人才。另一方面,新技术加速应用场景和商业模式创新,核心技术人才至关重要,调研显示¹²³,深圳AIGC人才需求在全国位居前列。此外,技术高速发展下,政府监管趋严,数据合规相关人才不可或缺。

新兴行业的挑战

大湾区整体创新影响力尚有提升空间,或影响高端人才、战略新兴产业人才供应

加速建设智能社会需汇聚创新人才,但数据显示¹²⁴,大湾区在研发投入占GDP比、高校数量等创新影响力方面仍有待提升,或将影响深港人才供应。大湾区紧缺软件工程师、机电工程师等技术研发类高端人才,或将制约深港高层次人才供应,进而影响数字经济竞争力。

▶ 人才跨境流动困难,人才供需存在错配

大湾区"一国两制、三关税区、四核心城"格局独特,其中,深港在发展模式、政策、文化等方面存在差异且未充分联通,人才市场配置效率不及预期。例如:大湾区正着力发展智能制造,香港资金富集、具备高附加值环节优势,但相关人才供不应求,2022年香港制造业人才空缺率¹²⁵同比增长39%¹²⁶,受限于人才跨境流动,有"工业立市"之称的深圳人才优势或难以充分发挥、助力协同发展。

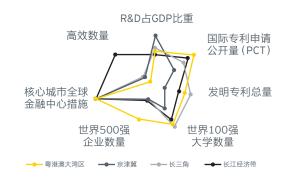
- 121 "周浩鼎议员发布香港工业4.0——再工业化启动建议书",香港民建 联网,https://www.dab.org.lk/post/%E5%91%A8%E6%B5%A9%E9 %BC%8E%E8%AD%B0%E5%93%A1%E7%99%BC%8E%A1%A8%E3%80 %8C%E9%A6%99%E6%B8%AF%E5%B7%A5%E6%A5%AD4-0-%E5%86 %8D%E5%B7%A5%E6%A5%AD%E5%8C%96%E5%95%9F%E5%8B%95 %E5%BB%BA%E8%AD%B0%E6%9B%B8%E3%80%8D, 2021年7月13日
- 122 2021-2023年《香港统计数字一览》,香港政府统计局,https://www.censtatd.gov.hk/sc/EIndexbySubject.html?scode=460&p-code=B1010006
- 123 《2023年第一季度AIGC人才求职洞察》,拉勾招聘;《2023AIGC 人才趋势报告》,脉脉招聘;《2023AIGC人才趋势洞察》,猎聘; 安永分析
- **124** 粵港澳大湾区(广东)人才港人才大数据平台,https://ygadwqrc-gtest.bokeyun.com.cn/#/talentService/oneServce
- 125 指空缺职位人数占所有职位人数的比值。空缺职位指悬空并需要立刻 填补,而单位正积极进行招聘以填补的职位;所有职位人数指空缺职 位人数与就业人数合计
- **126** 香港统计局,https://www.dsec.gov.mo/zh-CN/Statistic?id=302

人才流失情况



数据来源: 1.2021-2023年《香港统计数字一览》。香港政府统计局, https://www.censtatd.gov.hk/sc/ElndexbySubject.html? scode=460&pcode=B1010006,检索于2023年; 2.香港总商会人人才流失调查2022,香港奇点财经报,检索于2023年

四大城市集群创新影响力



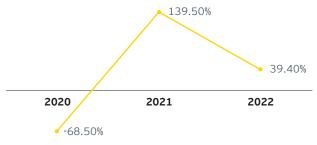
数据来源:粤港澳大湾区(广东)人才港人才大资料平台, https://ygadwqrcgtest.bokeyun.com.cn/#/talentService/oneServce, 检索于2023年

新兴产业学历需求占比



数据来源:粤港澳大湾区(广东)人才港人才大资料平台, https://ygadwgrcgtest.bokeyun.com.cn/#/talentService/oneServce, 检索干2023年

香港制造业人才空缺率同比变动



数据来源: 香港统计局, https://www.dsec.gov.mo/zh-CN/Statistic?id=302,检索于2023年

► 产业升级与数字化深化发展,或带来存量技能转型问题

高校培养与人才吸引能够缓解深港人才高质量供给问题,但还需关注存量就业人群的技能提升和转型。随着科技变革与产业发展,技能折旧加速,未来近一半存量技能将可能被淘汰,34%的企业认为应进行技能重塑,但60%的企业提出弥合技能差距困难¹²⁷。据安永调研¹²⁸,缺乏人才规划前端输入、难以衡量和跟踪产出价值、人才培养资源不足、"重塑"周期较长是核心难题,需深港两地企业重点关注。

企业对劳动力市场看法的调研



最佳实践



调研企业认为弥合 技能差存在巨大的 地战

数据来源: 《未来工作报告2023》, 2023年, 世界经济论坛

▶ 当前跨境人才流动政策举措

深港两地在激活人才市场、增强人才"磁力"上发挥重要作用。以下将梳理深港部分人才政策¹²⁹。两城协同前海深港现代服务业合作区,共同加速人才吸引、互认与培养,主要集中在如下方面:

大湾区人才政策机理

区域/城市	政策名称	政策类别	发布日期
广东省	广东省人才优粤卡实施办法	人才引进	2023年4月
	推进粤港澳大湾区高等教育合作发展规划	人才培养	2020年9月
	关于推进粤港澳大湾区职称评价和职业资格认可的实施方案	人才认证	2019年11月
	财政部 税务总局关于粤港澳大湾区个人所得税优惠政策的通知	人才引进	2019年3月
	贯彻落实金融支持前海深港现代服务业合作区全面深化改革开放意见的实施方案	人才引进、培养	2023年7月
	深圳市前海深港现代服务业合作区管理局支持科技创新实施办法 (试行)	人才培养	2022年8月
	全面深化前海深港现代服务业合作区改革开放方案	人才引进、培养	2021年9月
前海	港澳涉税专业人士在中国(广东)自由贸易试验区深圳前海蛇口片区执业管理暂行办法	人才认证	2021年1月
	深港口岸经济带罗湖先行区支持港澳专业人才创业就业发展及配套服务实施方案(试行)	人才引进	2020年11月
	深圳前海深港现代服务业合作区香港工程建设领域专业人士执业备案管理办法	人才认证	2020年9月
	港澳服务提供商在前海深港现代服务业合作区独资举办非学历职业技能培训机构 实施办法	人才培养	2020年1月
深圳	深圳市进一步支持港澳两年就业创业实施细则	人才引进	2023年5月
	进一步完善深圳市高层次人才奖助补贴发放有关事项的通知	人才引进	2022年3月
	关于进一步便利港澳居民在深发展的若干措施	人才引进	2021年3月
 W	香港优秀人才入境计划	人才引进	2023年6月
	科技人才入境计划	人才引进	2022年12月
香港	香港高端人才通行证计划	人才引进	2022年10月
	香港专才计划(输入内地人才计划 / 一般就业政策)	人才引进	2022年2月

数据来源: 广东省推进粤港澳大湾区建设领导小组办公室, 粤港澳大湾区门户网, https://www.cnbayarea.org.cn/policy/policy%20release/policies/index.html?geo-graphical_labal_string=%67%9C%81%67%BA%A7&policy_label_string=all&page=7, 检索于2023年; 广东省人民政府官网, https://sqzc.gd.gov.cn/rdzt/yga/gdzc/index.html, 检索于2023年; 香港政府官网, 入境事务处, https://www.immd.gov.hk/hks/services/index.html#tab_b_1, 检索于2023年; 安永分析

127 《未来工作报告2023》, 2023年, 世界经济论坛

^{128 《}中国ICT人才生态白皮书》,2022年,安永、华为

¹²⁹ 广东省推进粤港澳大湾区建设领导小组办公室,粤港澳大湾区门户网,https://www.cnbayarea.org.cn/policy/policy%20release/policies/index.html?-geographical_label_string=%E7%9C%81%E7%BA%A7&policy_label_string=all&year=all&page=7; 广东省人民政府官网,https://sqzc.gd.gov.cn/rdzt/yga/gdzc/index.html; 香港政府官网,入境事务处,https://www.immd.gov.hk/hks/services/index.html#tab_b_1; 澳门特别行政区政府官网,https://bo.io.gov.mo/bo/i/2023/22/lei07_cn.asp; 安永分析

▶ 完善人才保障机制:人才引进政策持续出台,人 才服务政策进一步完善

深港两地已出台多项人才绿卡、柔性引才政策, 其中,"前海金融30条"¹³⁰着力引进高层次金融人 才;同时广东社保"跨境办"在港服务点、"前海港 澳e站通"等人才服务项目,加速人才引进。目前 在粤登记就业的港澳居民超8.5万人¹³¹,在深参保 的港澳居民超4万人¹³²。

打通认证体系:推进多领域的职业资格、学历互 认,优化评价认证体系

《粤港澳大湾区规划纲要》¹³³颁布后,深港两地加速人才互认落地,如《深圳市境外职业资格便利执业认可清单》发布¹³⁴,香港证监会明确将承认内地学历及专业资格¹³⁵,极大推动人才认证体系的统一,打破人才流动桎梏。

加强人才培养合作:推进教育合作、校企合作, 链接人才培养资源

在《推进粤港澳大湾区高等教育合作发展规划》¹³⁶等政策指引下,深港高校合作办学、加强基础教育交流,共建教育高地。同时,"前海金融30条"中,深港青年金融机构实习计划、深港澳金融科技师专才计划¹³⁷等将促进校企间合作,提高培养效率。

助力跨境人才实现高质量可持续发展

系列政策的出台提供了明确而有力的战略指引,然而政策执行仍面临挑战。目前各方均积极探索解决方案,但部分角色仍未明晰,尚未形成规模效应。我们建议,深港及其他大湾区城市参与方应协同目标、互补能力,共筑人才生态。短期看,政府、行业、企业等人才需求方需进一步提升深港两地劳动力市场的全球吸引力与配置效率;长期看,高校等人才供给方应持续加速培养供给,提升人才服务与留存。

政府: 定方向、定规则,推动城市间人才互认,促进人才供需的链接

协调政策以推进人才自由流动

深港人才优势差异明显,应结合自身创新与产业 方向,制定城市间互相协调的人才政策,加速人 才融合,实现优势互补,放大发展合力。

▶ 加快对齐人才标准和职业资格等方面规则

人才评价认证体系是人才评价客观性与合理性的 重要支撑,也是连接人才供需的桥梁。政府应牵 头协调对齐人才技能认证标准,尤其针对深港关 键及新兴领域,加快资格互认进程。此外,政府 还应依据行业、技术与企业需求变化,联合各方 适配调整人才标准与认证体系。

行业: 聚集高校、企业等生态各方,制定 大湾区人才技能框架,促成信息共享

在市场需求导向型的人才培养模式下,生态各方需充分了解人才及技能的现状与趋势。技能供需影响因素复杂,因此,行业应发挥自身优势,全面整合信息,基于人才大数据平台,结合行业特性定期开展人才及技能的评估与预测,通过信息共享实现生态共赢。同时,还需制定人才技能框架,链接市场需求与培养资源,提升人才市场配置效率。

企业:将人才的"选、用、育、留"作为战略 优先事项

人岗匹配方面,企业需比对业务技能匹配程度,提升技能有效利用率;人才培养方面,企业应定期开展人才盘点,并积极探索产教融合,针对性进行技能培训,使现有人才向短缺技能岗位过渡;企业还需制定配套激励政策,在组织内部激活技能。此外,深港两地龙头企业有人才培养能力外溢基础,中小企业可寻求合作,降低培养成本。

¹³⁰ "关于贯彻落实金融支持前海深港现代服务业合作区全面深化改革开放意见的实施方案",深圳政府网,http://www.sz.gov.cn/gkmlpt/content/10/10703/post_10703647.html#20044, 2023年7月10日

^{131 &}quot;打造国际一流湾区",新华社,http://www.news.cn/politics/2023-07/01/c_1129726831.htm

^{132 &}quot;超4万港澳居民在深参加职工养老保险",深圳特区报,http://www.sznews.com/news/content/mb/2023-05/04/content_30210684.htm, 2023年5 月4日

^{133 &}quot;粤港澳大湾区发展规划纲要",中央政府网,https://www.gov.cn/zhengce/2019-02/18/content_5366593.htm#1, 2019年2月18日

^{135 &}quot;有关发牌规定的简易参考指南——内地人员在香港执业",香港证监会,https://sc.sfc.hk/TuniS/www.sfc.hk/TC/Regulatory-functions/Intermediaries/Licensing/Quick-licensing-guide/Mainland-Practitioners, 2023年3月22日

^{136 &}quot;粤港澳大湾区发力打造教育高地",中国发改委,https://www.ndrc.gov.cn/xwdt/ztzl/ygadwqjs1/202108/t20210825_1294623.html, 2021年8月 25日

¹³⁷ "关于贯彻落实金融支持前海深港现代服务业合作区全面深化改革开放意见的实施方案",深圳政府网,http://www.sz.gov.cn/gkmlpt/content/10/10703/post_10703647.html#20044, 2023年7月10日

高校:参与人才框架制定、连接更多教育资源

面对数字化转型与技能供需错配,高校应重新思考如何真正培养市场所需技能,积极参与未来人才框架制定,以指导教研活动的开发,实现需求导向的人才培养。高校还需构建对外协作基础,持续探索具有深港特色的产教合作模式,整合市场化优质教育资源,提供敏捷高效的教育服务。

个人: 保持持续学习的好奇心与热情

在技术与行业发展迅猛的当下,终身学习是每一个人的课题。个人应对新知识、新技能保持好奇心与热情,持续关注人才技能趋势,完善职业发展规划,实现高质量就业。

创业支持

2019年2月18日,《粤港澳大湾区发展规划纲要》颁布。整体来说,至今四年间,广东省和大湾区内各城市均因地制宜,积极出台符合城市优势和特色的创业支持政策。

深圳和珠海享有毗邻香港和澳门的独特地理位置,分别建立了前海深港现代服务业合作区和横琴粤澳深度合作区,在税收上也出台相关优惠政策。而其他城市,则多通过创业补贴吸引更多初创企业落地。

> 深圳

深圳是大湾区内科创企业最密集的城市,有前海深港青年梦工场等深港澳青年双创基地,还配套了各专项资金扶持政策。

城市/ 深圳138 地区 通用政策类: 如《深圳前海深港现代服务业合作区企业所 得税优惠政策》《粤港澳大湾区个人所得税 优惠政策》《关于支持前海深港风投创投联 政策 动发展的十八条措施》等。 措施 除通用政策外, 2022年, 深圳市前海深港合 作区管理局发布《深圳市前海深港现代服务 业合作区管理局支持科技创新实施办法(试 行)》。 前海地区: 前海深港青年梦工场拓展创新创 业空间至13.9万平方米,累计孵化香港创业 团队358家。 目前 河套地区: 2022 年落户重点科研机构、国际 成效 化平台和高精尖项目逾150个,初步形成世界 500强研发中心、深港"独角兽"企业、港澳 青年创新创业平台等"六大科创产业集群"。

▶ 香港

香港拥有香港科技园和数码港等成熟的科研社群, 还有香港科技园创投基金、策略性创科基金,以及 杰出创科学人计划、研究人才库、科技人才入境计 划等,共同帮助企业成长。

城市/ 地区

香港139

蓝图政策:

2022年12月,香港特区政府颁布《香港创新科技发展蓝图》,系统性提出八大策略,包含基础研究、成果转化、新型工业化、创投融资、创科人才、智慧城市、与内地创科合作、全球创科合作等诸多方面。

创业资助:

政策 措施

- (一) 中小企业市场推广基金, 最高5万港元:
- (二)企业支援计划,最高1,000万港元;
- (三) 科技券计划,最高20万港元;
- (四)科创生活基金,最高500万港元;
- (五) 专利申请资助计划, 最高25万港元;
- (六)零售业人力需求管理科技应用支援 计划,5万港元。

广州

广州颁布了《广州南沙深化面向世界的粤港澳全面 合作总体方案》,围绕航运物流、高端制造、金融 商务、科技创新、生命健康五大主导产业深化与港 澳及全球合作,大力支持港澳青年创业发展。

城市/ 地区

政策

措施

广州140

- (一)对在南沙区创办企业的港澳青年给予 全链条补贴与奖励,一次性提供最高 30万元落户补贴;
- (二) 对参加国家、省或粤港澳大湾区市级相关部门举办的创新创业大赛获奖,并落户南沙的港澳青年创新创业项目给予一次性5万元奖励,获得大赛奖金高于5万元的按照1:1配套,提供最高30万元获奖配套奖励;
- (三) 开辟港澳青创企业落户绿色通道,提供登记注册、场地租赁、人才招聘、法律咨询等全方位服务;
- (四)鼓励支持港澳青创项目积极对接市场、 培育市场,发起设立港澳青年创新创业 基金,重点投向港澳青创企业。

珠海

粤港澳大湾区的宝藏之地——珠海横琴,自2022 年开始实质性运营,明确企业享受税收优惠政策标准,夯实产业发展基础。

城市/ 珠海141 地区 《横琴粤澳深度合作区建设总体方案》《关于 横琴粤澳深度合作区符合条件的产业企业实 质性运营有关问题的公告》《财政部 税务总 政策 措施 局关于横琴粤澳深度合作区企业所得税优惠 政策的通知》,符合实质性运营要求的企业 享受减按15%的税率征收企业所得税。 据统计,2022年实际经营地在合作区的企业 同比增长39%, 月均新增涉税市场主体约400 户, 其中, 四大产业新登记总企业户数占比 目前 77.38%。辖区内企业增值税发票开票户数同 成效 比增长5.92%,企业职工参保人数和社保费金 额稳步增长。在合作区注册运营的澳资企业 超过5,300户,同比增长约11.8%,注册资本 总额突破1,400亿元。

▶ 澳门

澳门特区政府高度重视青年创业工作,将其作为特区政府经济局的一项重要工作内容。在现有政策中,既有专门针对青年创业而实施的支持政策,也有涵盖更广范围的支持政策。

城市/ 澳门142 地区 (一) 青年创业援助计划 援助金额上限为澳门币30万元,最长还 款期为八年。 (二) 中葡青年创新创业交流计划 针对21至44岁的澳门青年创业者前往 葡萄牙开展创业活动提出资助,例如: 境外创业场地、创业培训及咨询服务, 以及相应资金支持等。 政策 (三) 专业顾问服务互换计划 措施 通过相互认可的青年创业项目, 推介澳 门青年进驻内地孵化中心,协助青年在 内地成功创业。 (四) 澳门青年创业孵化中心 创业孵化中心实行24小时全天候开放 模式, 以资源共享、合作引进的方式, 为进驻会员提供完善的基础设施及专业 服务

★ 东莞

在毗邻深圳的东莞,不断提升科技企业孵化载体建设力度,提升孵化效能。市科技局发布一系列政策办法,对服务国家高新技术企业的孵化载体给予一定奖励。

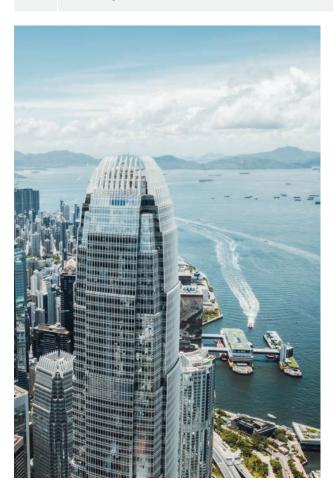
城市/ 东莞¹⁴³

政策

措施

《东莞市科技企业孵化载体孵化效能提升支持 暂行办法》明确:

- (一) 对国家级科技企业孵化载体年度考核 (运营)评价A级的科技企业孵化器、科 技企业加速器、大学科技园等单位择优 给予一次性最多不超过人民币30万元的 奖励,省级最高奖励人民币15万元的 奖励;
- (二)省级以上众创空间年度考核(运营)评价A级的单位最多给予人民币10万元的奖励;
- (三)《东莞市科技企业孵化载体孵化效能提 升支持暂行办法》鼓励科技企业孵化载 体延展孵化服务场地范围,孵化服务企 业。



▶ 其他城市

除此之外,大湾区其他城市也结合各自区域优势,在地方特色产业上积极推进产业发展和创业创新,并积极探索与港澳形成更深层合作。例如:

城市/地区	主要趋势 ¹⁴⁴
江门大广海湾经济区	主要在高端装备制造、生物医药与健康、新材料、清洁能源等产业方面与港澳加强合作。
江门银湖湾滨海新区	建设进一步加快,谋划与深圳共建深江经济合作区,核心区项目全面启动并加快推进。
中山翠亨新区	以人工智能与数字经济、生物医药、高端装备制造业、现代服务业为重点,积极构建产业合作平台,引进港澳合作项目。
佛山南海粤港澳合作 高端服务示范区	积极探索粤港澳合作体制机制创新,推动粤港澳高端服务与民生领域合作。
佛山顺德粤港澳协同 发展合作区	以规则相互衔接为重点,进一步推动在产业优化升级、科技创新发展、高端服务贸易、青年创新创业、人文交流融合等领域的协同发展,打造佛山顺德参与粤港澳大湾区建设的重要载体。

^{138 《}深圳市前海深港现代服务业合作区管理局支持科技创新实施办法(试行)》

^{139 《}粤港澳大湾区发展规划纲要》、中国(深圳)综合开发研究院

¹⁴⁰ 广州市南沙区人民政府网、《广州南沙新区(自贸片区)鼓励支持港澳青年创业就业实施办法》

¹⁴¹ 国家税务总局横琴粤澳深度合作区税务局、《关于横琴粤澳深度合作区符合条件的产业企业实质性运营有关问题的公告》

^{142 《}粤港澳大湾区发展规划纲要》

^{143 《}东莞市科技企业孵化载体孵化效能提升支持暂行办法》

¹⁴⁴ 中国 (深圳) 综合开发研究院

On 18 February 2019, the *Outline Development Plan* for the Guangdong-Hong Kong-Macao Greater Bay Area was promulgated. In the four years since, the Guangdong Province and the cities within the GBA have all implemented talent and entrepreneurial support policies that draw upon the strengths and unique features of the respective cities.

The cross-boundary talent flow has returned to normal since boundary crossing resumed after the pandemic.

As Shenzhen and Hong Kong both lie at the forefront of the nation's "dual circulation" economic strategy, the pace of integration of their talent markets has accelerated. There has been increasing collaboration in various aspects of talent market development. Effective allocation of human resources is key in the high-quality development of the GBA. This chapter turns the focus to the developments in the talent market and policies in talent flow, with suggestions for the future.

The nurture of talent

Current trends and challenges in the talent market

Current trends in the talent market

 On the demand end: Strong demand for highly educated talent, with the highest demand for technology research and development professionals

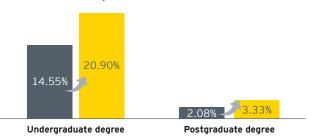
Technology innovation is the driving force of growth in the digital economy. There is an urgency for highly qualified talent for core technology development. In 2021, the Guangdong Province released the List of Urgently Needed Talent in the GBA, which shows that the demand for highly educated and innovations and technology talent to be consistently rising. The demand for product developers and software engineers ranks the highest 118. Hong Kong's Talent List released in Q1 2023 also recommends bringing in talent in the technology field, such as AI specialists and data scientists 119. These types of talent are critical to Information and Communications Technology (ICT), advanced manufacturing and sectors that have strategic impact in the sustainable development of the digital economy.

List of talents in need in the GBA

Top three most- needed positions	Positions needed in innovation and technology in Hong Kong	
Product developers	Artificial Intelligence specialists	Cloud infrastructure specialists
Channel managers	Data scientists	Software specialists
Software engineers	Innovation and technology experts	Cyber security specialists

Source: List of Urgently Needed Talents in the GBA (mainland) 2020, Human Resources and Social Security Department of Guangdong Province, http://hrss.gd.gov.cn/gkmlpt/content/3/3490/mpost_3490754,html#1274; Talent List, Innovation and Technology, 2023, Talent List Hong Kong, The Government of the HKSAR, https://www.talentlist.gov.hk/sc/iso7.html

Percentage of high academic attainment requirement in the talent market

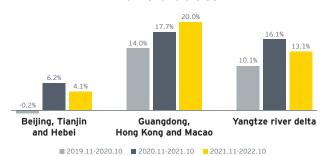


Source: List of urgently needed talents in the GBA (mainland) 2020, Human resources and social security department of Guangdong province, http://hrss.gd.gov.cn/gkmlpt/content/3/3490/mpost_3490754.html #1274;

 On the supply end: Consistent efforts in attracting talent, with differences in the strengths of talent between Shenzhen and Hong Kong

As the demand for talent rises, identifying and securing talent supply has become a critical issue. The growth rate in the talent supply of the GBA has been increasing for three consecutive years ¹²⁰. Efforts to attract talent have been enhanced. There is a positive trend of talent-led industrial development and talent aggregation in industrial clusters. For example, Shenzhen has a robust talent pool in ICT and manufacturing while Hong Kong is a prime market for finance professionals. There are significant differences in the strengths of the two talent markets, and their respective comparative advantages can complement each other in an integrated approach.

Talent growth in the past three years in different cities



Source: Report on talent development in the GBA 2022, analysis by Liepin and EY $\,$

Talent trends

Continuous development in technology and industry restructuring will drive the demand for talent in emerging technologies, data compliance and strategic emerging industries.

As discussed earlier, digital economy has redefined the demand for talent. The technological transformation of traditional industries and the growth of emerging industries have led to a surge for digital talent. For example, a proposal Hong Kong Industry 4.0 released in July 2021¹²¹ suggested that the issues of deindustrialization and excessive uniformity of the city's industrial structure should be addressed. However, there is brain drain in Hong Kong's engineering sector¹²², leading to a growing urgency in boosting the talent supply in emerging industries such as smart manufacturing. Furthermore, technological advancements have accelerated the development of new application scenarios and innovations in business models. Therefore, professionals in core technologies are critical for the economy. A survey has shown that 123 Shenzhen's demand for AIGC talent is ranked high in the nation. With the rapid development of technology and tightening of government regulations, data compliance professionals are much sought after by the market.

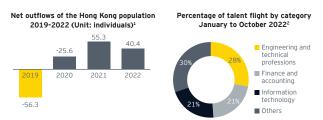
Challenges in the emerging industries

 The overall innovative impact of the GBA remains limited, affecting the supply of talent in high-end and emerging industries

A vibrant and sustainable pool of innovative talent is critical for the development of a smart society. However, data has shown¹²⁴ that the GBA still needs to enhance its influence in innovation in terms of the ratio of investment input into research and development to the area's GDP and the number of institutes of higher education, as they affect the talent supply in Shenzhen and Hong Kong. There is a pressing demand for high-end talent in innovative research and development including software engineers and electrical engineers in the GBA. This may affect the supply of high-end talent in Shenzhen and Hong Kong, weakening their competitiveness in the digital economy.

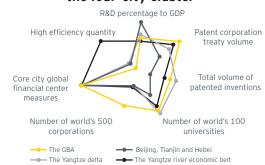
- 121 Holden Chow releases Hong Kong Industries 4.0 A Proposal to Launch Re-industrialisation, Democratic Alliance for the Betterment and Progress of Hong Kong Website, https://www.dab.org.hk/post/%E5%91%A8%E6%B5%A9%E9%E7%99%BC%E8%A1%A8%E3%80%8C%E9%A6%99%E6%B8%AF%E5%B7%A5%E6%A5%AD4-0-%E5%86%B0%E5%B7%A5%E6%A5%AD4-0-%E5%86%B0%E5%B7%A5%E6%A5%AD%E5%8C%96%E5%95%9F%E5%BB%95%E5%BB%BA%E8%AD%B0%E6%9B%B8%E3%80%BD, 13 July 2021
- 122 Hong Kong in Figures 2021-2023, Census and Statistics Department of the Government of the HKSAR, https://www.censtatd.gov.hk/sc/EIndexbySubject.html?scode=460&pcode=B1010006
- 123 AIGC Talent and Job Search Insights Q1 2023, lagou.com; AIGC Talent Trend Report 2023, maimai.cn; AIGC Talent Trend Insights 2023, liepin.com; EY Analysis
- 124 Guangdong-Hong Kong-Macao Greater Bay Area Talent Harbour Big Data Platform on Talent (Guangdong), https://ygadwqrcgtest. bokeyun.com.cn/#/talentService/oneServce

The current state of the brain drain



Source: 1. Hong Kong in Figures 2021-2023, Census and statistics department of the government of the HKSAR, https://www.censtatd.gov.hk/sc/EindexbySubject.html?scode=460&pcode=B1010006, last visited 2023. 2. Hong Kong general chamber of commerce talent shortage survey 2022, singularity financial, last visited 2023.

Innovative impact of the four-city cluster



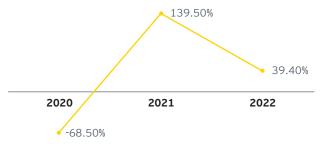
Source: Guangdong-Hong Kong-Macao Greater bay are talent harbour big data platform on talent (Guangdong), https://ygadwqrcgtest.bo-keyun.com.cn/#/talentService/oneServce, last visited 2023

Percentage ratio for academic attainment levels required by emerging industries



Source: Guangdong-Hong Kong-Macao Greater bay are talent harbour big data platform on talent (Guangdong), https://ygadwqrcgtest.bokeyun.com.cn/#/talentService/oneServce, last visited 2023

Changes in the vacancy rate in Hong Kong's manufacturing industry YOY



Source: The census and statistics department of the government of the HKSAR, https://www.dsec.gov.mo/zh-CN/Statistic?id=302, last visited 2023

Cross-boundary flow of talent remains difficult, mismatch in talent supply and demand

The GBA enjoys the distinctive advantage of "one country, two systems, three jurisdictions and four core cities." The differences that arise out of this unique feature are manifested in the mode of development, policies and cultures of Shenzhen and Hong Kong, and the two cities are yet to be fully connected. This does bear upon the efficiency of human resource allocation. For example, the GBA has been devoting significant effort in the development of smart manufacturing. Although Hong Kong is rich in capital, which is a high valueadded advantage, the talent in relevant industries is in short supply. In 2022, the vacancy rate of Hong Kong's manufacturing industries¹²⁵ has grown 39% YOY¹²⁶. Due to the difficulty in cross-boundary talent flow, Shenzhen's comparative advantages from its industrial foundation cannot readily translate into the synergistic developments that would benefit Hong Kong.

Industrial upgrade and digitalization drive skills transformation

Nurturing talent in higher education institutions and talent attraction are ways to alleviate the talent shortage in Shenzhen and Hong Kong.

However, the reskilling and upskilling of the workforce is also important. With developments and transformations in technology, job skills are obsoleting at a rapid rate. In the future, nearly half of the existing job skills may be phased out. 34% of enterprises believed that there should be reskilling of the workforce. However, 60% of the enterprises raised the issue of the skill gap¹²⁷. A survey by EY¹²⁸ highlighted issues such as the lack of talent planning, difficulty in assessing and tracing the value of output, the lack of resources in talent training and the relatively long time required for reskilling. These are the key areas of concern for Shenzhen and Hong Kong.

A survey on corporate perceptions of the labor market



of surveyed enterprises think that reskilling is the best way to meet this challenge



of surveyed enterprises think that there are significant challenger in mending the skill gap

Source: The future jobs report 2023, world economic forum

¹²⁵ Refers to the ratio between the number of job vacancies to the total number of jobs. Job vacancies refers to the vacancies that require immediate filling, for which the relevant work unit is actively recruiting candidates; the total number of jobs refers to the total of all vacancies and the number of people in employment

¹²⁶ Census and Statistics Department of the Government of the HKSAR, https://www.dsec.gov.mo/zh-CN/Statistic?id=302, last visited 2023

¹²⁷ The Future Jobs Report 2023, World Economic Forum

¹²⁸ China's ICT Talent Ecosystem White Paper 2022, EY, Huawei

¹²⁹ Office of the Guangdong Province Leading Group for Development of Guangdong-Hong Kong-Macao Greater Bay Area, www.cnbayarea.org. cn. https://www.cnbayarea.org.cn/policy/policy%20release/policies/index.html?geographical_label_string=%E7%9C%81%E7%BA%A7&policy_label_string=all&page=7; Website of the People's Government of the Guangdong Province, https://sqzc.gd.gov.cn/rdzt/yga/gdzc/index.html; Website of the Immigration Department, Government of the HKSAR https://www.immd.gov.hk/hks/services/index.html#tab_b_1; Website of the Government of the Macao SAR, https://bo.io.gov.mo/bo/i/2023/22/lei07_cn.asp; EY Analysis

¹³⁰ Implementation Plan on the Opinions on Providing Financial Support for the Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, Shenzhen Government Online, http://www.sz.gov.cn/gkmlpt/content/10/10703/post_10703647.html#20044, 10 July 2023

¹³¹ Creating a World-Class GBA, Xinhua News, http://www.news.cn/politics/2023-07/01/c_1129726831.htm

¹³² More than 40,000 Residents of Hong Kong and Macao Joins Social Security, Shenzhen Special Zone Daily, http://www.sznews.com/news/content/mb/2023-05/04/content_30210684.htm, 4 May 2023

Current measures on cross-boundary talent flow

Shenzhen and Hong Kong play an important role in activating the talent market and enhancing talent attraction. The following table presents a general overview of some of Shenzhen and Hong Kong's talent policies. ¹²⁹ The two cities will capitalize on the opportunities in the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone and join hands in talent attraction, mutual recognition of credentials and training, with an emphasis on the following aspects.

An overview of the talent policies of the GBA

City/ Region	Policies and measures	Policy category	Date of promulgation
	Implementation measures of the talent residency pass of Guangdong province	Talent luring	April 2023
Guangdong province	Plan for the promotion of cooperation in higher education in the Guangdong-Hong Kong-Macao Greater bay area	Talent nurture	September 2020
	Implementation measures for the recognition of title evaluation and occupational qualifications in the Guangdong-Hong Kong-Macao Greater bay area	Recognition of qualifications	Novemeber 2019
	Notice on preferential individual income tax policies in Guangdong-Hong Kong-Macao Greater bay are jointly issued by the ministry of finance and the state taxation administration	Talent luring	March 2019
	Implementation plan on the opinions on providing financial support for the comprehensive deepening reform and opening up of the Qianhai Shenzhen-Hong Kong modern service industry cooperation zone	Talent luring, nurture	July 2023
	Shenzhen Qianhai Shenzhen-Hong Kong modern service industry cooperation zone authority supporting the implementation measures of scientific and technological innovation (trial)	Talent nurture	August 2022
	Plan for comprehensive deepening reform and opening up of the Qianhai Shenzhen-Hong Kong modern service industry cooperation zone	Talent luring, nurture	September 2021
Qianhai	Interim measures for managing the practice of Hong Kong an Macao tax-related professionals in the Shenzhen Qianhai-Shekou are of the China (Guangdong) pilot free trade zone	Talent luring	January 2021
	Implementation plan for services supporting Hong Kong and Macao professional talents in entrepreneurship and employment in the boundary control points economic belt of Luohu trial zone (trial)	Talent luring	November 2020
	Management measures for the record-filing of Hong Kong Engineering and construction professionals in the Qian Shenzhen-Hong Kong modern service industry cooperation zone	Talent luring	September 2020
	Implementation measures for Hong Kong and Macao service providers to establish non- educational vocational skills training institutions as sole proprietorship in Qianhai Shenzhen- Hong Kong modern service industry cooperation zone	Talent nurture	January 2020
	Implementation measures for Shenzhen's further support for the employment of Hong Kong and Macao youth	Talent luring	May 2023
Shenzhen	Notice on matters related to the further improvement of the grant of subsidies to high-end talents	Talent luring	March 2022
	Several measures to provide convenience for Hong Kong ad Macao residents to work in Shenzhen	Talent luring	March 2021
Haarkara	Quality migrant admission scheme	Talent luring	June 2023
	Technology talent admission scheme	Talent luring	December 2022
Hong Kong	Top talent admission scheme	Talent luring	October 2022
	Admission scheme for Mainland talents and professionals and general employment policy	Talent luring	February 2022

Source: Office of the Guangdong province leading group for development of Guangdong-Hong Kong-Macao Greater bay area, www.cnbayarea.org.cn, https://www.cnbayarea.org.cn/policy/golicy/g20release/policies/index.html?geographical_labal_string=%E7%9C%81%E7%BA%A7&policy_label_string=all&year=all&page=7, last visited 2023; website of the People's government of the Guangdong province, https://sqzc.gd.gov.cn/rdzt/yga/gdzc/index.html, last visited 2023; website of the government of the HKSAR, Immigration department, https://www.immd.gov.hk/hks/services/index.html#tab_b_1, last visited 2023; EY Analysis

 Improvements in the mechanisms for talent retention, talent attraction and talent servicing

Both Shenzhen and Hong Kong have rolled out talent attraction policies to address talent shortages, such as the talent residency pass. In this effort, the *Thirty Financial Measures of Qianhai*¹³⁰ put an emphasis on luring high-end financial talent; the Guangdong Province set up a cross-boundary office of the Human Resources and Social Security Department of Guangdong Province in Hong Kong and the Qianhai E-Services Hong Kong Macau

- Station. These are talent programs that aim to attract talent expeditiously. At the moment, there are 85,000 residents of Hong Kong and Macau who are registered employees in Guangdong¹³¹, and over 40,000 residents of Hong Kong and Macau participating in social security in Shenzhen¹³².
- Recognition of credentials: Promote the joint verification of professional qualifications in different industries and academic attainment, and improve the mechanisms for qualification assessment and verification

After the promulgation of the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*¹³³, Shenzhen and Hong Kong have sped up the implementation of policies for the mutual recognition of talent, such as the release of the *List of Recognized Overseas Professional Qualifications*¹³⁴, and the recognition by the Securities and Futures Commission of Hong Kong of mainland academic credentials and professional qualifications¹³⁵. There is significant effort in promoting a unified approach in qualification recognition, thus removing one of the major barriers in the free flow of talent.

 Enhanced cooperation in nurturing talent: Promote educational and institutional collaboration and share training resources

As guided by policies such as the *Plan for the Promotion of Cooperation in Higher Education in the Guangdong-Hong Kong-Macao Greater Bay Area*¹³⁶, the higher education institutions in Shenzhen and Hong Kong have forged ties by jointly offering educational programs and conducting exchanges. At the same time, initiatives such as the Shenzhen-Hong Kong Youth Internship Programme in Finance and the Shenzhen-Macao-Hong Kong Fintech Professional Programme¹³⁷ have also facilitated institutional-level collaboration to improve the quality and efficiency of talent training.

Talent support for high-quality sustainable development

While the relevant policies have provided clear strategic guidance, challenges remain in policy implementation. Despite the active exploration of solutions by the relevant parties, a clear division of labor is lacking, as such the policies have not yet been brought to scale. EY suggests that Shenzhen, Hong Kong and other participating cities of the GBA come up with a mutual objective and complement each other's strengths to create an ecosystem for talent attraction and retention. In the short term, governments, industries and enterprises must lift the global profile for the labor markets of Shenzhen and Hong Kong and enhance the allocation efficiency. In the long term, efforts should be dedicated to nurturing talent in the higher education institutions, with the aim of improving talent service and retention.

- 133 Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, www.gov.cn, 18 February 2019
- 134 List of Recognised Overseas Professional Qualifications 2022, Human Resources and Social Security Bureau of Shenzhen Municipality, http://hrss.sz.gov.cn/tzgg/content/post_9843689. html, 2 June 2022

Government: Set the directions and rules for inter-city mutual recognition of qualifications, promote the linkage between the supply and demand of talent

 Coordinate policies to promote the free flow of talent

There are significant differences in the respective strengths of the talent markets in Shenzhen and Hong Kong. Combining their strengths with innovation and industrial development, the two cities can formulate coordinated talent policies, facilitate the integration of talent and create synergies.

 Accelerate the mutual recognition of human resource standards and professional qualifications

Talent assessment recognition mechanism is the main vehicle through which objective and reasonable assessment of talent can be made. It is also the bridge connecting the supply and demand in the talent market. The governments should spearhead the setting of standards for skill and qualification profiles, especially for the key and emerging industries of Shenzhen and Hong Kong, to accelerate the mutual recognition of professional qualifications. Furthermore, adjustments of the recognition mechanisms should be made with the changing demand of industries, skill requirements and business needs.

Industries: Set a technical skill framework for the GBA by bringing together institutes of higher education and enterprises and facilitate information sharing

As the current talent training model is guided by market demand, all parties in the business chain must fully understand the current situation and future trends of talent and skills. Since the factors affecting the supply and demand for technical skills are complex, the industries must fully capitalize on their strengths, actively integrate information from big data, and carry out regular assessments and forecasts on their needs in technical skills and talent. This information should also be shared to create a win-win situation for the whole industry. At the same time, it is important to establish talent frameworks, which will serve as the bridge between talent demand and talent training, thereby improving the allocation efficiency of the talent market.

- 135 A Quick Guide on Licensing Requirements for Mainland Practitioners in Hong Kong, The Securities and Futures Commission, https://sc.sfc.hk/TuniS/www.sfc.hk/TC/Regulatory-functions/Intermediaries/Licensing/Quick-licensing-guide/Mainland-Practitioners, 22 March 2023
- 136 The GBA Augments Its Efforts to Create High Grounds for Education, National Reform and Development Commission, https://www.ndrc.gov.cn/xwdt/ztzl/ygadwqjs1/202108/t20210825_1294623.html, 25 August 2021
- 137 Implementation Plan on the Opinions on Providing Financial Support for the Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, Shenzhen Government Online, http://www.sz.gov.cn/gkmlpt/content/10/10703/post_10703647.html#20044, 10 July 2023

Enterprises: Set strategic visions and prioritize the selection, management, training and retention of talent

In terms of matching talent to the practical needs of the enterprise, enterprises should assess how well their employees' skillsets match with their professional roles to enhance the utilization of skills. In terms of talent cultivation, enterprises should assess their talent needs periodically, and engage education providers in matching educational training with industry needs. Technical skill training should be aimed to develop the employees' capability to fulfill the unmet needs in the workplace. Enterprises should also create incentive structures that encourage the development of technical skills in-house. Finally, the leading enterprises in Shenzhen and Hong Kong may bring forth positive spillovers in their talent training initiatives, Small and medium enterprises may collaborate with leading enterprises and reduce their respective costs in talent training.

Higher education institutions: Set up talent frameworks and pool educational resources

As they confront the demands of digital transformation and the mismatch between the supply and demand of skills, higher education institutions should rethink how to nurture the skillsets that are required by the market, and actively participate in the establishment of talent frameworks. Their research and educational endeavors should be market-oriented, and aim to meet the demand-driven dynamics of the talent market. Institutes of higher education should establish external collaboration and continue to devise integrated educational models with view of industry and enterprise needs. These models should also take into account the characteristics of Hong Kong and Shenzhen's economies. Effective education is sensitive to market demand. Efficiency and market sensitivity are indicators of success.

Individuals: Maintain motivation and enthusiasm for continuous learning

In an era of rapid technological and industrial advancements, continuous learning is essential to staying relevant and competitive. Individuals should stay motivated to acquire new knowledge and skills, pay close attention to talent and skills trends while mapping out their career plan to lead a fulfilling professional life.

Entrepreneurial support

On 18 February 2019, the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area* was promulgated. In the four years since, the Guangdong Province and other GBA cities have rolled out policies on entrepreneurial support, with a view to capitalize on their competitive edge in entrepreneurship.

Amongst the GBA cities, Shenzhen and Zhuhai have unique advantages due to their proximity to Hong Kong and Macau, and they have set up the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone and Guangdong-Macao In-Depth Cooperation Zone in Hengqin respectively. Relevant preferential tax policies have already been promulgated in these cooperation zones. For other cities, entrepreneurial subsidies are used to attract more startups.

Shenzhen

Within the GBA, Shenzhen has the greatest number of science and technology enterprises. The Qianhai Shenzhen-Hong Kong Youth Innovation and Entrepreneur Hub is an innovative entrepreneurial base for young people in Shenzhen. There are also funds earmarked specifically for policy incentives.

carriarited specifically for policy interferees.			
City/Region	Shenzhen ¹³⁸		
Policies and measures	General policies: For example, the Preferential Corporate Income Tax Treatment for the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, the Preferential Individual Income Tax Policy in the Guangdong Hong Kong-Macao Greater Bay Area, and 18 measures for Supporting the Linked Development of Shenzhen and Hong Kong Venture Capital Investments in Qianhai. In 2022, the management authority of Qianhai issued the Shenzhen Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone Authority Supporting the Implementation Measures for Scientific and Technological Innovation (Trial).		
Effectiveness	In Qianhai: The Qianhai Shenzhen-Hong Kong Youth Innovation and Entrepreneur Hub has expanded its innovation and entrepreneurship space to 139,000 square meters, which houses 358 Hong Kong startups. In the Shenzhen-Hong Kong Innovation and Technology Cooperation Zone: In 2022, more than 150 science and technology institutions, international platforms and high-tech projects were established, forming "six major science and technology industry clusters" including the world's top 500 research and development centers, Shenzhen and Hong Kong's unicorn enterprises and entrepreneurial platforms for young people from Hong Kong and Macau.		

¹³⁸ Shenzhen Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone Authority Supporting the Implementation Measures for Scientific and Technological Innovation (Trial)

Hong Kong

Hong Kong has well-established research and development communities, such as the Hong Kong Science and Technology Parks Corporation and the Cyberport. In terms of policies and funding, there are HKSTP Venture Fund, the Strategic Tech Fund, Global STEM Professorship Scheme, Research Talent Hub, Technology Talent Admission Scheme, etc., which aim to promote the growth and success of technology enterprises.

enter prises.		entrepreneurs from Hong Kong and Macau.			
City/Region			entrepreneurs memmeng nong una macaa.		
	Pluoprint policies:	City/Region	Guangzhou ¹⁴⁰		
Policies and measures	In December 2022, the Hong Kong Government promulgated the Hong Kong Innovation and Technology Development Blueprint, in which eight main strategies were proposed, including basic research, the transformation of research findings, new industrialization, innovation investment financing, innovation and technology talent, smart city, collaboration with the mainland in innovation initiatives, and global collaboration in innovation. Funding for entrepreneurship: 1. SME Export Marketing Fund, with a maximum of HK\$50,000 2. Enterprise Support Scheme, with a maximum of HK\$10 million 3. Technology Voucher Programme, with a maximum of HK\$200,000 4. Innovation and Technology Fund for Better Living, with a maximum of HK\$5 million 5. Patent Application Grant, with a maximum of HK\$250,000	Policies and measures	 A comprehensive coverage of subsidies and rewards for Hong Kong and Macau young people who set up enterprises in the Nansha district, with a maximum subsidy of RMB30,000 for successful registration of the enterprise. Awardees of innovation and entrepreneurship contests organized by relevant government bodies at the national, provincial or municipal levels, who decide to start businesses in Nansha, will be given a one-off award of RMB50,000. Those who won the contest with an award of more than RMB50,000 will receive a maximum of RMB300,000. Open up a green channel for Hong Kong and Macau's young entrepreneurs to settle down in Nansha, providing all-round support including business registration, venue leasing, talent recruitment and legal consultation. Encourage and support Hong Kong and Macau young entrepreneurs to commercialize their innovations and set up an innovation and entrepreneurship fund to support youth entrepreneurship. 		
	Scheme, with a maximum of HK\$50,000				

Guangzhou

Guangzhou has promulgated the Overall Plan for

Guangzhou. The plan aims to deepen cooperation with

Hong Kong, Macau and the world in five key industries,

namely shipping and logistics, high-end manufacturing,

Promoting Comprehensive Cooperation among

Guangdong, Hong Kong and Macao by Further

finance and commerce, science, technology and innovations, and health and wellbeing, to support young

Deepening Opening-up in Nansha District of

Zhuhai

Hengqin of Zhuhai is the jewel of the GBA. There has been substantial operation of industries in Hengqin since 2022 with clear provisions of preferential tax policies for enterprises, which laid a solid foundation for industrial development.

City/Region	Zhuhai ¹⁴¹
Policies and measures	According to the Overall Plan for the Construction of Hengqin Guangdong-Macao In-Depth Cooperation Zone, the Announcement on the Substantive Operation of Qualified Industries and Enterprises in the Guangdong-Macao In-Depth Cooperation Zone in Hengqin, and the Notice of the Ministry of Finance and the State Taxation Administration on the Preferential Policies for Enterprise Income Tax in Guangdong-Macao In-Depth Cooperation Zone in Hengqin, qualified enterprises meeting the requirements of substantial operation in Hengqin will enjoy a preferential 15% tax rate for its Corporate Income Tax.
Effectiveness	Statistics show that the number of enterprises that have substantial operation in the Hengqin cooperation zone has grown 39% YOY. The number of registered market entities increased on a monthly average by about 400. The newly registered enterprises within the four main industries accounted for 77.37% of the total. The number of VAT invoices has grown 5.92% YOY, and both the employee participation in social security and the amount contributed have grown steadily. There are over 5,300 registered Macau-funded enterprises operating in the Hengqin cooperation zone, an increase of 11.8% YOY. Total registered capital has exceeded RMB140 billion.

¹³⁹ Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, China Development Institute

¹⁴⁰ Nansha District People's Government of Guangzhou Municipality, Implementation Measures for the Encouragement and Support of Hong Kong and Macao Youth in Entrepreneurship and Employment in the Nansha Development Zone by Nansha District of the Guangzhou Municipality

¹⁴¹ State Taxation Administration Office the Guangdong-Macao In-Depth Cooperation Zone in Hengqin Tax Service, Announcement on the Substantive Operation of Qualified Industries and Enterprises in the Guangdong-Macao In-Depth Cooperation Zone in Hengqin

Macau

The Macao SAR Government attaches great importance to youth entrepreneurship and it is an important aspect of the work of the Economic and Technological Development Bureau. There are policies that favor youth entrepreneurship, with an overall supportive policy framework that covers broader areas.

City/Region Macau¹⁴² 1. Young Entrepreneurs Aid Scheme The maximum amount of assistance is MOP300,000, with a maximum repayment period of eight years. 2. Youth Innovation and Entrepreneurship Exchange Programme of China and Portuguese-speaking Countries Provide subsidies to Macau entrepreneurs aged between 21 and 44 for starting business in Portugal, such as foreign domicile for the business, entrepreneurial training and consultation, and financial support. Policies and 3. Professional Consultation Service and measures Exchange Programme Support Macau's young entrepreneurs to start their businesses in the mainland through mutually-recognized youth entrepreneurship programs. 4. Macao Young Entrepreneur Incubation The Macao Young Entrepreneur Incubation Center is open 24/7, providing a full range of facilities and professional services to its members by sharing resources and introducing collaboration.

Dongguan

Adjacent to Shenzhen, Dongguan has been active in raising its capacity in incubating science and technology enterprises. The Dongguan Municipal Science and Technology Bureau has promulgated a series of policies and measures to provide incentives to the incubators of technology enterprises that serve national high-tech enterprises.

criter prises.		
City/Region	Dongguan ¹⁴³	
	The Interim Measures on Raising the Effectiveness of the Incubators of Technology Enterprises in Dongguan states that:	
Policies and measures	1. Incubators, technology accelerators and university technology parks that are ranked Grade A in the annual assessment of national-level technology incubators (operations) will receive a one-time grant of a maximum of RMB300,000. For those at the provincial level, the grant amounts to a maximum of RMB150,000.	
	2 For innovation space annual assessment (operations) at the provincial level and above, those are ranked Grade A will be given a reward of RMB100,000.	
	3 Interim Measures on Raising the Effectiveness of the Incubators of Technology Enterprises in Dongguan encourages technology incubators to extend their scope of service.	

Other cities

Other cities in the GBA also leverage their regional strengths to promote the development of industries and entrepreneurship, and maintain a close relationship with Hong Kong and Macau with the following initiatives:

City/Region	Main trends ¹⁴⁴
Jiangmen's Daguang Bay Economic Zone	Foster relationships with Hong Kong and Macau in high-end equipment manufacturing, biopharmaceuticals and health, new materials, clean energy, etc.
Jiangmen's Yinhu Bay Area	Speed up the construction of infrastructures, prepare for the joint establishment of the Jiangmen-Shenzhen Economic Cooperation Zone with Shenzhen, and initiate and launch key projects.
Zhongshan's Cuiheng New District	Focus on AI, digital economy, biopharmaceuticals, high-end equipment manufacturing and modern services, and actively build industrial cooperation platforms to develop joint projects with Hong Kong and Macau.
Foshan's Guangdong-Hong Kong- Macao Cooperation High-end Services Demonstration Zone in Nanhai	Explore innovative approaches in the cooperation mechanisms with Hong Kong and Macau, and promote the development of high-end services and livelihood improvement projects with Hong Kong and Macau.
Foshan's Shunde Guangdong- Hong Kong-Macao Collaborative Development and Cooperation Zone	Focus on the alignment of rules and regulations with the objective of promoting synergies in industry upgrades, technological innovation, high-end service trade, youth entrepreneurship and integrated cultural exchange, and transform Foshan into an important hub in the GBA initiative.

¹⁴² Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area

¹⁴³ Interim Measures on Raising the Effectiveness of the Incubators of Technology Enterprises in Dongguan

¹⁴⁴ China Development Institute

环境、社会及治理通 ESG Connect

环境、社会及治理(ESG)以及"双碳"战略在国家发展中的角色愈发重要。不论在金融、科技发展还是人才培育等领域,ESG已经逐渐深入该等领域,成为在建设及运营上不可或缺的元素之一。在国家层面上,"十四五"规划和2035年远景目标纲要已明确指出,要坚定不移地大力发展绿色金融。而国际市场上,不但投资者要求获取企业更多的ESG信息,且ESG产品和绿色金融亦逐渐成为资金追捧对象。

在2019年颁布的《粤港澳大湾区发展规划纲要》中,首次提出支持将香港发展为大湾区的绿色金融枢纽。为推动香港成为中国内地乃至全球范围内政府和绿色企业的首要金融平台,香港特区政府在2022年的《施政报告》中已明确表示,会重组"可持续发展委员会"为新的"碳中和及可持续发展委员会",就减碳策略提供意见。随着"可持续发展"成为大湾区的战略优先事项之一,大量资源将被投放至区内的可持续发展事业中,ESG和绿色可持续金融领域的发展将出现前所未有的机遇。

环境、社会及治理现状

凭借香港国际金融中心优势,大湾区的绿色金融发展走在全国前列。近年来,绿色金融市场发展迅速,在"一国两制"独特模式下,香港将作为连接境内外的桥梁,不断探索创新而共融的机制,令更多的海外投资者能够参与大湾区的绿色金融市场。绿色金融市场在境内外的互通,一方面能够让更多海外投资者接触内地绿色或可持续发展相关产品,与此同时,内地绿色金融市场亦能与国际市场接轨,争取国际市场接纳。

为在大湾区内建立成熟及完善的绿色金融市场,促进境内外金融市场的互联互通,香港、深圳以及广州的监管机构从政策合规、市场机制构建以及碳市场建立等方面分别进行不同尝试,在积极与国际接轨的同时,各地机构亦在探索符合中国特色的金融发展之路。

深港ESG互联互通

▶ 企业ESG披露要求的探索和接轨

随着全球各地对ESG以及气候相关议题的重视,社会各界对企业披露有关环境、社会及管治信息的期望逐渐增强,收紧ESG披露要求以及扩大企业ESG披露范围已是大势所趋。在大湾区内,香港交易所("港交

所")早在2012年就已发布有关指引,为上市公司进行自愿性ESG披露作出建议,并在2016年将对有关披露的要求转为强制汇报。在2021年12月,港交所进一步修订《企业管治守则》,要求上市公司自2022财年开始,须同时发布ESG报告和年度报告。同年,港交所发布了《气候信息披露指引》,气候相关财务披露工作小组(TCFD)为上市公司的气候相关信息披露给予指引。该指引将不迟于2025年开始强制实施,届时,相关行业需要对气候相关事宜作出更全面的披露。

香港ESG报告框架发展时间脉络



资料来源: 香港交易所

国际可持续准则理事会(ISSB)于2023年6月正式发布两份国际可持续披露准则(ISDS)的终稿,包括"一般要求(IFRS S1)"以及"气候相关披露(IFRS S2)",标志着首套全球ESG披露准则落地。为维持香港作为国际金融中心的竞争力,进一步巩固其备受信赖的集资平台的地位,港交所在2023年4月对现有的ESG框架进行全面检视,以确保其继续紧贴国际发展,反映投资者期望,促进市场调整资金分配。经咨询后修订的披露要求将在2024年1月1日生效,在港上市公司须在2026年1月1日或之后开始的财政年度,全面遵守所有新的气候相关披露规定。

另一方面,深圳证券交易所("深交所")和上海证券交易所("上交所")目前虽尚未制定任何针对上市公司的强制性ESG披露规定,但在2023年3月,两会代表议员均纷纷表示中国应加快步伐,立足国情、对标国际,制定用于规范企业ESG议题的披露准则,助力企业高质量发展。同时,在2023年2月份深交所再次修订《深圳证券交易所上市公司自律监管指引第3号——行业信息披露》¹⁴⁵,在结合上市

公司行业特点及发展中面临问题的基础上,要求上市公司逐步提高ESG信息披露要求。新修订的披露要求指引中,细化了相关行业重大环境污染事故的信息披露要求,包括:企业应当披露环境事故发生的基本情况、超标或者违法排放的情况、以及其对环境、社会及其他利益相关者造成的影响和损失等。

此外,为了带动全社会贯彻落实"双碳"目标要求,支撑国家如期实现"双碳"目标,国有资产监督管理委员会在2022年5月印发《提高央企控股上市公司质量工作方案》,要求中央企业集团公司要进一步完善环境、社会责任和公司治理工作机制,提升ESG绩效,在资本市场中发挥带头示范作用,推动更多央企控股上市公司披露ESG专项报告,力争到2023年相关专项报告披露"全覆盖"。

除上市公司外,基金管理公司亦需遵守更为严格的 ESG披露标准。在2022年8月,香港证监会发布了 《绿色和可持续金融议程》,聚焦企业披露、资产管 理、ESG基金和碳市场等议程,考虑采纳ISSB的气候 准则作为报告框架的一部分,以及使香港的相关披露 要求符合香港金融管理局的建议和ISSB气候准则。

未来,大湾区针对ESG信息披露的要求将更趋严格,各交易所的披露框架亦将逐渐清晰和完善。大湾区企业须密切关注最新监管动态,更加全面地进行ESG信息披露。而在打造成熟ESG信息披露体系的过程中,港交所及深交所可凭借自身优势和特点,相互合作,发展出既适合区内企业、资产管理及基金公司,又能接轨国际市场、获国际投资者认可的信息披露框架。

▶ 自愿及区域碳市场的建立

在推动迫切的全球气候议程方面,资本市场发挥着关键作用,碳市场的建立呼之欲出。香港在2022年10月正式推出区内自愿碳交易市场平台Core Climate,该平台是目前唯一为国际自愿碳信用产品交易同时提供港元及人民币结算的碳市场,在为亚洲及其他地区提供有效透明的自愿碳信用产品及工具交易的同时,亦有助香港进一步提升作为国际性离岸人民币枢纽及优质绿色可持续金融中心的地位。

根据港交所公布的数据,Core Climate在推出的一个月内,已经交易超过40宗,涉及约40万吨的碳信用。该平台亦提供超过30个经国际认证的碳减排项目,包括避碳、减碳及碳移除项目,涉及亚洲、南美及西非的林业、太阳能、风能、水力发电及生物质能等。

香港特区政府和监管机构十分重视碳市场的发展, 在支持香港成为区域绿色金融中心的进程中,碳市场的建立是其中一个重点。香港证监会联合绿色和可持续金融跨机构督导小组的碳市场专责团队,在2022年发布了《对香港碳市场机遇的初步可行性评估》,提到支持香港发展为国际优质自愿碳市场,同时促进与大湾区和内地的合作。在可行性研究中,碳市场专责团队明确了四个未来方向:

▶ 发展香港成为国际优质自愿碳市场;

- 与有关当局和利益相关者合作,按照内地政策推动建设粤港澳大湾区统一碳市场;
- 探索联系国际投资者与粤港澳大湾区统一碳市场 以及全国碳排放权交易市场的机会;
- 加强与广州期货交易所在碳市场发展方面的合作,使香港成为内地的离岸风险管理中心。

港交所与广州碳交所亦在2022年3月签订合作备忘录,双方将共同探索区域碳市场的深化发展,创建适用于大湾区的自愿减排机制。除自愿碳市场外,为响应国家"双碳"战略的号召进行策略部署,深化大湾区内绿色金融合作,广州市人民政府亦积极支持广州碳排放权交易场所建设。在2023年6月,广州市政府印发《2023年广州金融支持实体经济高质量发展行动方案》,支持依托广州碳排放权交易中心,建设大湾区碳排放交易市场。该方案指出,将推动广州期货交易所研究上市碳排放权,和以广东电力市场为标的的期货品种,依托碳排放现货市场开发碳金融产品,强化碳定价和碳市场风险管理。

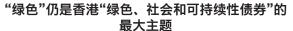
内地碳市场目前仍处于发展阶段,市场需求有待发掘,双方合作有助于推动大湾区绿色金融和可持续发展进程。此外,香港碳市场的认证标准与国际接轨,结算方式具有独特性,未来有望通过碳信用项目将更多全球资本引入中国内地,抓住与气候相关的无限机遇,助力内地与世界接轨。

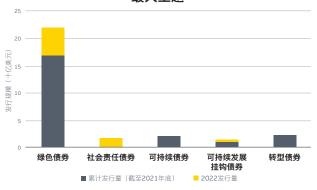
绿色金融市场逐渐成熟

近年来,全球绿色债券市场的体量已实现数倍增长,大湾区经济在进行脱碳转型过程中亦涌现大量投资机遇。据估计,大湾区在实现脱碳化目标方面的资金需求高达1.84万亿美元¹⁴⁶。

为促进绿色和可持续金融中心发展,香港在原有金融体系基础上,推出不同举措,以注入绿色和可持续发展因素。香港政府在2017年的《施政报告》中公布,带头发行绿色债券。在2021年,绿色债券的借款总额上限提升至2,000亿港元,让政府有更大空间尝试扩大绿色债券的币种、项目种类、发行渠道,进一步丰富香港的绿色和可持续金融生态。

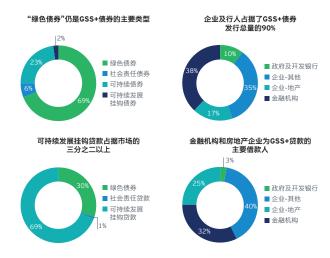
2022年,在香港安排或发行的绿色和可持续债务超过805亿美元¹⁴⁷,这一数字较2021年增长超40%,在亚洲区绿色和可持续债券市场的占有率达35%。在2023年2月,香港政府发行了1.01亿美元的代币化绿色债券,是全球首批由政府发行的同类债券,结合科技,以进一步强化对可持续议题的意识。而在2023年6月,香港政府亦发行接近60亿美元等值的美元、欧元和人民币计价绿色债券,成为亚洲最大的ESG债券发行。





资料来源: Climate Bond Initiatives

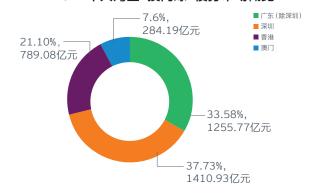
在2021年5月,香港金融管理局发布关于绿色和可持续金融资助计划的指引,以通过支持绿色和可持续发债和放贷,强化香港作为区域绿色和可持续金融中心的地位。截至2023年5月,香港政府已向约250笔在港发行的绿色和可持续债务工具批出近1.8亿元资助,涉及债务总值接近800亿美元。



数据来源: 香港金融管理局

目前,港交所仍然是中国离岸绿色债券最受欢迎的上市场所。2022年,在港交所上市的中国离岸绿色债券交易量占比达43%。另一方面,中国境内绿色债券发行规模也持续扩大,在2022年继续保持增长并创下历史新高,达1550亿美元(折合约1万亿元人民币),按年增长35%148。广东省和港澳两地在2022年共发行"投向绿"债券213只,合计规模达3,739.96亿元人民币。其中,深圳发行规模最大,达1410.93亿元人民币,在大湾区绿债市场占37.7%,港澳两地市场在2022年的绿债发行规模分别为789.08亿和284.19亿元人民币,占比分别为21.1%和7.6%149。

2022年大湾区"投向绿"债券市场概览



¹⁴⁷ https://www.info.gov.hk/gia/general/202304/14/ P2023041400143.htm

¹⁴⁸ 气候债券倡议组织、中央国债登记结算有限责任公司中债研究中心及 兴业经济研究咨询股份有限公司联合编制,2022年中国可持续债券 市场报告

¹⁴⁹ http://www.gzgfa.org.cn/uploads/ueditor/file/20230425/1682390738504454.pdf

此外,为确保国际市场对ESG投资的认可和资本流动的透明度,并减少漂绿行为,香港政府正在探讨以共通绿色分类目录(Common Ground Taxonomy)为基础,建立供香港市场采用的绿色分类框架,并对接内地和欧盟的绿色分类法,使香港标准与国际最佳做法接轨。

深港ESG互联互通展望

近年来,大湾区在绿色金融方面的合作与交流不断加强。2020年,全国首个区域性绿色金融联盟"粤港澳大湾区绿色金融联盟"于深圳正式成立。2023年4月,在香港政府财经事务及库务局、香港证券及期货事务监察委员会及香港金融管理局支持下,由粤港澳大湾区绿色金融联盟及香港绿色金融协会联合举办的"加强粤港澳大湾区在可持续金融领域的合作"主题会议在香港召开,围绕如何发挥大湾区各地

优势、进一步加强大湾区可持续金融市场合作进行 深入探讨。而大湾区绿色金融的融合发展,对中国 实现可持续发展亦具有非常重要的战略地位。

随着大湾区进一步融合发展,香港以及深圳、广州等城市在环境、社会及治理方面的角色及定位将更加清晰和明朗,有助区内绿色金融市场进一步迈向完善和成熟。香港作为国际金融中心,能够在大湾区发展大局下,进一步引领区内绿色金融和低碳经济的转型,并协助湾区经济与国际接轨。在绿色和可持续金融发展大势下,湾区城市拥有巨量投资机遇和庞大的资金需求,随着境内外进一步互联互通,大湾区城市可在环境、社会及治理领域实现突破,在各自领域推动可持续发展。



Environmental, social and governance (ESG) and the "dual carbon" strategy have become increasingly important in China's national development agenda. No matter in the field of finance, technology development or talent cultivation, ESG has gradually penetrated into these fields and become one of the indispensable elements in construction and operation. The Outline of the 14th Five-Year Plan for Economic and Social Development (2021-2025) and Long-Range Objectives through the Year 2035 has affirmed China's commitment to the development of green finance. In the international market, not only are investors demanding more ESG information from companies, but ESG products and green finance are also well sought after by market capital.

The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area promulgated in 2019 was first to propose the support for Hong Kong to develop itself into the green finance hub in the GBA. In order to position Hong Kong as the prime financial platform for governments and green enterprises in the mainland and globally, the Hong Kong Government made clear in the Policy Address of 2022 that it will reorganize the Council for Sustainable Development to remake it into a new "Council for Carbon Neutrality and Sustainable Development". It will provide policy suggestions for carbon reduction strategies. As sustainable development becomes a priority in the strategic agenda of the GBA, significant resources will be dedicated to sustainable development projects in the area. ESG and green finance will meet unprecedented, boundless opportunities.

The current landscape of ESG

With Hong Kong's strength as an established international financial center, the GBA's green finance development has long been the forerunner in the nation. The green finance market has developed rapidly in recent years. The "one country, two systems" framework enables Hong Kong to serve as the bridge connecting China and the world. The establishment of well-connected, innovative and integrated systems is key for bringing in foreign investors for the green finance market in the GBA. On the one hand, foreign investors will have the opportunity to learn about the green and sustainable products in the mainland. On the other hand, the green finance market of the GBA will develop compatibility with global standards and eventually rise to the challenge of global acceptance.

In order to establish a mature green finance market and facilitate the connectivity of financial markets onshore and offshore, Hong Kong, Shenzhen and Guangzhou have been experimenting with regulatory and policy compliance, market infrastructure and the establishment of carbon markets. While the market's compatibility with international market standards is a key objective, the institutions involved are also

mindful of charting a path of financial development that is sensitive to China's unique circumstances and characteristics.

The integration of ESG among Shenzhen and Hong Kong

The exploration and alignment of enterprise ESG disclosure requirements

ESG and climate-related issues have been in the global spotlight. The society has raised high expectations on enterprises' duty to disclose information about environmental, social and governance matters, as such imposing strict requirements for ESG-related disclosures as well as expanding its scope. In the GBA, the HKEX had already released relevant guidance in 2012, with suggestions on voluntary corporate disclosure. In 2016, the disclosure requirements were subject to mandatory reporting. In December 2021, the HKEX further amended the Code on Corporate Governance Practice, requiring listed companies to issue ESG reports along with their annual reports beginning in the 2022 Fiscal Year. In the same year, the HKEX released the Guidance on Climate Disclosures, whereby the Task Force on Climate-Related Financial Disclosures (TCFD) issued guidance for listed companies in climate disclosures. This guidance will become mandatory no later than 2025, when the relevant industries must make comprehensive disclosures on climate-related matters.

Development timeline of Hong Kong's ESG reporting framework



In June 2023, the International Sustainability Standards Board (ISSB) released two exposure drafts on IFRS Sustainability Disclosure Standards (ISDS), namely "General Requirements (IFRS S1)" and "Climaterelated disclosures (IFRS S2)". They are the first set of global ESG disclosure standards to be implemented. In order to maintain Hong Kong's competitiveness as an international financial center and further solidify its role as a trusted fundraising platform, the HKEX conducted a comprehensive review of current ESG

frameworks and published a consultation paper in April 2023. This review ensured that the frameworks would keep up with international development, respond to stakeholders' expectations and facilitate adjusted capital allocation. The revisions after consultation shall take effect starting from 1 January 2024, entailing the full compliance of listed companies in Hong Kong with the newest climate-related disclosure standards from 1 January 2026, or otherwise at the beginning of the following fiscal year.

Meanwhile, the Shenzhen Stock Exchange (SZSE) and Shanghai Stock Exchange (SSE) have yet to enforce mandatory disclosure measures toward listed companies. However, in March 2023, representatives from both the SZSE and SSE expressed the urgency to establish measures regarding ESG sustainability disclosure standards with the aim of encouraging high-quality development of companies in alignment with national conditions and international benchmarks. Based on the characteristics of its listed companies and the potential development issues they may face, the SZSE revised the Guideline No. 3 for the Application of Self-Regulation Rules for Listed Companies -Categorized Regulation of Information Disclosure in February 2023¹⁴⁵, mandating listed enterprises to gradually raise their ESG disclosure standards. This revision further specifies the disclosure standards for events with highly polluting environmental impact. including the disclosure of the event's basic situation, incidents of excessive or illegal emissions involved, as well as their consequent impact and damage to the environment, the society and other stakeholders.

Additionally, in order to lead and promote the Chinese society's fulfilment of its "dual carbon" goal, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) issued the Work Plan for Improving the Quality of Listed Companies Controlled by Central State-Owned Enterprises Controlled in May 2022, mandating that SOEs must enhance their ESG performance by further improving their environmental, social and governance-related mechanisms. This move shall have a leading and demonstrative influence in pushing the listed companies controlled by central state-owned enterprises to publish ESG disclosure reports, and for all such companies to make disclosures by 2023.

Compared to listed companies, fund management companies must comply with even stricter ESG disclosure standards. In August 2022, the SFC published the *Agenda for Green and Sustainable Finance*, with a focus on corporate disclosure, asset management, ESG funds and regulatory frameworks for carbon markets. It was considered that ISSB's climate standards be part and parcel of Hong Kong's

own sustainability reporting framework, so that its disclosure standards would comply with both the recommendations of the HKMA and the ISSB.

In the future, the ESG disclosure standards in the GBA will become increasingly stringent, as the reporting frameworks of various stock exchanges are gradually refined with better clarity and completeness. Enterprises in the GBA must therefore keep abreast of the latest regulatory developments and strive to fully embrace ESG disclosure practices. In the process of integrating them in regulation, the HKEX and SZSE can cooperate and draw on their respective strengths to develop a reporting framework that is suitable for enterprises and fund management companies in the region, while aligning with international market standards and gaining the recognition of foreign investors.

The establishment of a voluntary carbon market

In meeting the urgent need to address global climate change, the capital market plays a key role. This has resulted in the imperative call for the establishment of a carbon market. In October 2022, the HKEX launched "Core Climate", a voluntary carbon market platform for the region. At present, this is the only platform allowing internationally recognized voluntary carbon credits to be exchanged and settled in both Hong Kong dollars and Renminbi. By serving Asia and farther regions with the products and tools for effective and transparent voluntary carbon credit exchange, the platform simultaneously strengthens Hong Kong's international position as an offshore Renminbi business hub and a sustainable, green global financial center.

According to data published by the HKEX, there were over 40 completed transactions in the first month of Core Climate's launch, which concerned 400,000 tonnes of carbon credits. The platform also offered access to over 30 internationally certified projects, with forestry, solar, wind, hydropower and biomass initiatives in Asia, South America and West Africa involving carbon avoidance, carbon reduction and/or carbon removal.

The Hong Kong Government and its regulatory bodies attach high importance to the development of the carbon market. In the process of transforming Hong Kong into a regional green finance hub, the Hong Kong Government must spearhead the establishment of a carbon market. In 2022, the SFC and the Carbon Market Workstream under the Green and Sustainable Finance Cross-Agency Steering Group released the Carbon Market Opportunities for Hong Kong Preliminary Feasibility Assessment. It endorsed the development of Hong Kong into a global, high-quality voluntary carbon

market, and the facilitation of cooperation with the GBA and the Chinese mainland. The feasibility assessment outlined four directions for next steps:

- Develop Hong Kong into a global, high-quality voluntary carbon market
- Collaborate with relevant authorities and stakeholders to work toward establishing the GBA Unified Carbon Market in line with mainland policies
- Explore opportunities to link international investors with the GBA Unified Carbon Market and potentially the national emissions trading system
- Strengthen cooperation with the Guangzhou Futures Exchange on carbon market development to enable Hong Kong to act as the mainland's offshore risk management center

The HKEX and the Guangzhou-based China Emissions Exchange have also signed a Memorandum of Understanding in March 2022, in which they agreed to explore the further development of regional carbon markets. They aim to create a voluntary emission reduction mechanism that is suitable for the GBA. In response to the call for the national strategy in "dual carbon" and to foster cooperation in green finance in the GBA, the People's Government of Guangzhou Municipality has also adopted a proactive approach in the establishment of emissions exchanges besides the voluntary carbon markets. In June 2023, the Guangzhou Government published the Action Plan for Financial Support of High Quality Development of The Real Economy 2023, with the aim of supporting the establishment of carbon emissions exchanges in the GBA with Guangzhou's China Emissions Exchange as its prototype. This document points out that Guangzhou will promote the public exchange of Certification Emission Reduction (CER) and the types of futures that are targeted for trade in the Guangdong Power Market. Carbon financial products will be developed with reference to the cash market in emissions exchange, as such strengthening the pricing and risk management of the carbon market.

The carbon markets in the mainland are still in the early stage of development. There is a need to identify potential demand. Collaboration in this respect will help promote the development of green finance and sustainable development in the GBA. Furthermore, the certification criteria of Hong Kong's carbon market are consistent with international practice, its clearing and settlement also has unique features. In the future, carbon credit projects should attract global capital into China. The climate objective will present a window of opportunity for China and encourages its further integration into the global order.

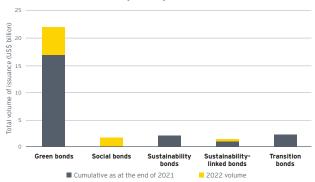
► The green finance market matures

In recent years, the volume of the global green bond market has grown multifold. Many investment opportunities emerged for the GBA as it begins a process of carbon elimination. It was estimated that the capital demand for the GBA to fulfil its carbon elimination goals is US\$1.84 trillion¹⁴⁶.

In order to encourage and facilitate the development of a green and sustainable financial center, Hong Kong has rolled out different measures that incorporate sustainability elements upon the basis of its existing financial infrastructure. In the *Policy Address of 2017*, the Hong Kong Government announced that it will spearhead the first issuance of green bond in Hong Kong. In 2021, the loan ceiling for green bond was raised to a total of HK\$200 billion, allowing greater room for the government to experiment the currency denominations, types and distribution channels of issuance. This effort has diversified Hong Kong's green and sustainable finance profile.

In 2022, the Hong Kong-arranged or issued green and sustainable bonds have exceeded a value of US\$80.5 billion¹47. This figure has grown 40% from the same in 2021, accounting for 35% of the green and sustainable bond markets of Asia. In February 2023, the Hong Kong Government issued Tokenised Green Bonds valued at US\$101 million. It was the first government-issued bond of the same kind with combined technology elements in the world and intended to raise awareness of the issues that concern sustainable development. In June 2023, the Hong Kong Government also issued nearly US\$6 billion worth of green bonds denominated in US dollars (USD), euro (EUR) and Renminbi (RMB). This would be the largest ESG bond offer in Asia.

Green remained the largest GSS+ theme from Hong Kong issuers



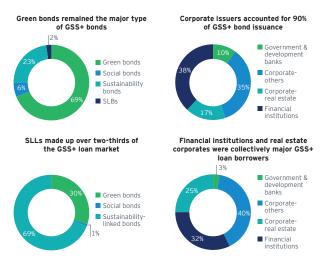
Source: Climate Bond Initiatives

In May 2021, the HKMA announced the guideline on the Green and Sustainable Finance Grant Scheme (GSF Grant Scheme). By supporting bond issuance and loan borrowing in the green and sustainable sector, it

¹⁴⁶ World Resources Institute, the Roadmap for Deep Emission Reduction and the Opportunities of Financial Support for Low Carbon Economy Transition in the GBA, 2023

¹⁴⁷ https://www.info.gov.hk/gia/general/202304/14/P2023041400143.htm

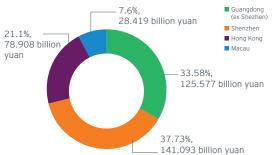
enhances Hong Kong's status as the financial center for green and sustainable development. As of May 2023, the Hong Kong Government has already approved nearly HK\$180 million worth of subsidies to around 250 green and sustainable debt instruments issued in Hong Kong, raising a total of US\$80 billion worth of debt.



Source: The Hong Kong Monetary Authority

For China's offshore green bonds, the HKEX is still the most-favored listing index. In 2022, the trade volumes for China's offshore green bonds at the HKEX constituted 43% of the total turnover. At the same time, the scale of issuance for green bonds in the domestic markets has also expanded. In 2022, such growth continued and reached the record level of US\$155 billion (about RMB1 trillion), a growth of 35% YoY¹⁴⁸. The Guangdong Province, Hong Kong and Macau have issued a total of 213 "green-oriented bonds" in 2022, in a total scale of RMB373.996 billion. Shenzhen's issuance was the largest, reaching RMB141.093 billion, accounting for 37.7% of the GBA's green bond market. The scale of bond issuance in Hong Kong and Macau in 2022 were RMB78.908 billion and RMB28.419 billion respectively, accounting for 21.1% and 7.6% of the total green bond market in the GBA¹⁴⁹.





Furthermore, in order to ensure the recognition of ESG investments by international markets and the transparency of capital flow, and also to discourage greenwashing, the Hong Kong Government has been exploring the use of Common Ground Taxonomy as the basis for building the framework for green categorization, and this will be compatible with the green categorization in the mainland and the European Union, meeting the global standard for best practices.

Outlook for ESG connectivity between Shenzhen and Hong Kong

The GBA has been actively engaged in the cooperation and exchange for green finance in recent years. In 2020, the Greater Bay Area Green Finance Alliance (GBA-GFA), the nation's first regional green finance alliance, was formally established in Shenzhen. In April 2023, the GBA-GFA and Hong Kong Green Finance Association co-organized a meeting in Hong Kong themed "Strengthening GBA Sustainable Finance Collaboration" with support from the Financial Services and the Treasury Bureau, the SFC and the HKMA. The meeting addressed how to harness the respective strengths of the GBA cities and enhance collaboration for the GBA's development of its sustainable finance market. The development and integration of the GBA's green finance profile has strategic significance for the nation's sustainable development.

As the GBA further integrates and develops, Hong Kong, Shenzhen and Guangzhou shall have an increasingly important role to play in China's ESG profile. They will be the key driving force for the maturation of the regional green financial market. As an international financial center, Hong Kong will pioneer the transition of green finance and low carbon economy in the region within the general course of development of the GBA. It is expected to enable the GBA's economy to further integrate into the world economy. The trending developments of green and sustainable finance worldwide will present enormous investment opportunities and capital demand for the GBA cities. The GBA will capitalize on the increasing connectivity amongst its cities to realize breakthroughs in the ESG agenda, enabling each city to promote sustainable development that underscore their respective strengths.

¹⁴⁸ China Sustainable Debt: State of the Market Report (2022), Published jointly by the Climate Bonds Initiative, China Central Depository & Clearing Research Center (CCDC Research) and CIB Economic Research and Consulting (CIB Research).

¹⁴⁹ http://www.gzgfa.org.cn/uploads/ueditor/file/20230425/1682390738504454.pdf

结语 Conclusion

在一个国家、两种制度、三个法域和关税区、三种货币的条件下,实现跨境协同创新、推进区域深度合作,是"一国两制"伟大创举的具体实践,在国际上没有先例。粤港澳大湾区敢闯敢试,正在开辟一条新道路。

经过多年努力,深港合作已经打下坚实基础。香港特区政府于2021年公布了《北部都会区发展策略》,致力于将香港北部片区建设成为新的"宜居宜业宜游的都会区",使其既可成为与南部(维港)都会区配套发展的新平台,也可与仅一河之隔的深圳形成"双城三圈"的战略性布局。香港特区政府正全力推动经济复苏,加快融入国家发展大局,未来5年是香港开创新局面、实现新飞跃的关键期。深圳通过做强做实深港这一极,持续推进粤港澳大湾区建设,深圳各区按照"香港需要什么,自身能做什么"的思路铺设自身平台、对接香港资源,以宽领域、深层次、高水平的深港合作来高效连接全球的优质资源和广泛的市场需求。

深港合作,基建设施先行。深港基础设施全面合作以来,在交通互联、信息网络互通、能源保障和大湾区水资源共享等方面持续推进,深港将在港口、机场、综合运输通道、快速交通网络、客货运输服务等方面深入合作;深港的信息基础设施建设均处于较高水平,未来的信息化互联将着力在新型智慧城市试点示范、网络安全保障等方面进一步深化,打通市场壁垒和信息流通限制,确保信息安全并全面提升信息基础设施建设;绿色低碳发展是实现高质量发展的关键环节,基础设施节能减排是实现城市绿色发展目标的重要举措,深港将携手并进,推动"双城三圈"在绿色发展规划,推动区域经济与生态协调发展。

在强化基础设施"硬联通"的同时,也不断推进规则机制的"软联通"。随着技术发展与大湾区产业调整,新兴产业等人才需求持续提升,跨境人才流动需求迫切。为激活人才市场,大湾区在"引才、认证、培养"等方面采取多项政策与举措,创造有利的政策条件和发展环境,增强大湾区城市"软环境"吸引力。2023年3月初,香港特区政府推出恒常化"大湾区青年就业计划",鼓励更多企业提供职位,支持香港青年到大湾区内地城市工作。毗邻香港的深圳,已成为港人港企"北上"发展的首选地。深圳以"反向飞地"形式在香港设立全国首个"港澳青年创新创业基地",创新推动

境外专业人才执业便利化,让香港青年在深学习、就业、创业、生活更加便利。深港在教育、医疗、社会保障等方面也跑出"加速度",让深港澳人员共享发展成果。

作为吸引人才"软联通"中的重要一环,深港跨境医疗和数字化医疗成为大湾区医疗创新探索的排头兵。以深圳为代表的湾区内地面临优质医疗不足、本地医疗系统不完善等问题,香港具有优质的医疗资源和扎实的医疗网络,正是内地所需;深港跨境医疗在新药引进、内地办医、人才流通、内地就医等领域不断拓展,同时深港也非常注重数字化的发展,积极打造智慧医院。通过深港的医疗协同发展,探索大湾区医疗发展新方式,切实解决患者的医疗需求。

作为支持"硬联通"及"软联通"源头活水,金融及货币通在深港互联互通中起着尤为重要的作用。作为国际金融中心,香港拥有完善的金融市场体系和监管法律制度,以及多元、高效的资本市场,汇聚了国际顶尖的金融机构和人才,是全球最庞大的离岸人民币资金池及离岸人民币结算中心。深圳是中人民币资金池及离岸人民币结算中心。深港同为大宫区引擎,可继续发挥各自独有优势,相互补充,联合贯彻落实跨境金融改革相关政策,推动两地在金融科技、数字货币、跨境金融、跨境投融资、金融监管等领域更深更广的合作,积极拓展区域市场,推动更多金融开放和创新的先行先试,成为高质量发展的示范地。

可持续发展是大势所趋,ESG以及"双碳"战略在国家发展中的角色愈发重要。香港作为国际金融中心,金融基础设施和监管制度完善,ESG披露要求紧随国际发展,在政府的大力支持下,绿色金融市场迅速扩大。内地在ESG和绿色金融发展方面正加快步伐,深港从政策合规、市场机制构建等多方面探索,积极促进境内外绿色金融市场的互联互通。在绿色和可持续金融发展大势下,湾区城市拥有巨量的投资机遇和庞大的资金需求,随着境内外进一步互联互通,大湾区可在环境、社会及治理领域实现突破,在各自领域推动可持续发展。

经过近几年的发展与融合,粤港澳大湾区综合实力显著增强,粤港澳合作更加深入广泛,区域内发展动力进一步提升,在国家双循环发展格局中发挥重

要的链接、枢纽作用,正努力朝着全面建成国际一流湾区的目标奋进。安永与凤凰卫视一直致力推动十一城在六大领域中的互联互通,配合大湾区城市和企业客户,为深化粤港澳融合发展、建设一流湾区和世界级城市群贡献力量。我们将继续"六通十一城"的洞察研究,积极分享专业经验、知识和技能,提供具有国际视野、适应大湾区发展需要的高质量专业服务,助力大湾区企业提升核心竞争力。

The GBA is blazing a new trail in its development. Upon the basis of a unified one country, the GBA is consisted of two systems with three legal and customs jurisdictions, as well as three currencies in circulation. At the heart of "one country, two systems" is the idea that close economic ties are what sustain the practical necessities of the vision. As there is no precedent in the world, this unique defining feature of the GBA calls for innovative approaches in synergistic, cross-boundary and regional collaboration.

Shenzhen and Hong Kong have laid a firm foundation for close collaboration after years of dedicated effort. The Hong Kong Government announced the Northern Metropolis Development Strategy in 2021, with a vision of transforming Hong Kong north into an urbanity suitable for living, working and travelling. Together with its southern counterpart ashore the metropolitan Victoria Harbour, the Northern Metropolis stands for the recognition of balance and complementarity in intra-city development. Meanwhile, its proximity to Shenzhen presents the unique context for the strategic vision of "Twin Cities, Three Circles". The Hong Kong Government has been moving at full throttle for economic recovery. By stepping up its participation in the nation's development agenda, Hong Kong will see a critical window of opportunities in the next five years, with novel and dynamic conditions that will give rise to a new round of economic takeoff. Shenzhen continues its development for the GBA initiative with a spirit of "what Hong Kong needs and what we can do". As such, its efforts are focused on preparing itself for mutually beneficial initiatives. Extensive, thorough and discreet cooperation between Shenzhen and Hong Kong is the means by which a throughway linking up global resources with vast market demand is created.

Infrastructure building was the first agenda in the Shenzhen-Hong Kong collaborative effort, which concerned transportation connectivity, information network linkage, energy security and water source sharing in the GBA. Developments in these various areas of collaboration have already shown results in ports, airports, comprehensive external transport links, rapid transport networks, and passenger and cargo transport services. At the same time, the information infrastructures of Shenzhen and Hong Kong are already well-developed. Future developments for information connectivity will be focused on the pilot demonstration of new-type smart city and the protection of cybersecurity, etc. The relevant policies will lift market access and the restrictions on data flow, ensure the security of the data and improve the overall quality of information infrastructures. Finally, green and low-carbon development is a critical aspect in highquality development. One of the important measures for green urban development objectives is the reduction of carbon emissions by basic infrastructures. Shenzhen and Hong Kong will join hands in the planning of green development in the "Twin Cities, Three Circles", and promote a coordinated development of the economy and ecology in this region.

Of course, the "hard connect" that concerns infrastructure building must be accompanied by the "soft connect" that concerns the establishment of regulatory mechanisms. Technological developments, industrial adjustments and emerging industries have generated a consistently rising demand for talent. There is a pressing need for cross-boundary talent flow. In order to inject vitality in the talent market, the GBA has introduced policies and measures in the attraction, credential recognition and nurture of talent, creating favorable conditions for the upgrade of the GBA's resource profile in its intangible environment. In early March 2023, the Hong Kong Government rolled out the Greater Bay Area Youth Employment Scheme, which will be run on a regular basis. The scheme encourages enterprises to provide vacancies and support Hong Kong youth to work in the GBA cities. Shenzhen, being just one river away from Hong Kong, is the first choice for many Hong Kong people to "go north". Furthermore, Shenzhen has established a Hong Kong and Macao Innovation and Entrepreneurial Base in Hong Kong, which promotes convenience for overseas-qualified professional practitioners, and benefits Hong Kong youth in their education, employment, entrepreneurial endeavors and living in Shenzhen. There has also been an effort to escalate collaboration in education, health and social security, so that the residents of Shenzhen, Hong Kong and Macau will share the fruits of an improved quality of life.

Cross-boundary and digital health care are both important aspects of the "soft connect". Shenzhen and Hong Kong are the forerunners in health care

innovations in the GBA. Shenzhen's current conditions in health care is representative of the overall picture in the GBA. There is a lack of high-quality health care, and its health care system awaits improvements. Hong Kong's high-quality health care resources and well-developed hospital network will fill in the gap for the mainland. There has been an expansion of collaborative effort in the cross-boundary introduction of new medications, the provision of health care in the mainland by Hong Kong institutions, joint access to medical professionals and the reception of medical services in the mainland by Hong Kong patients. At the same time, both cities have concerned themselves with the digitalization of health care and they are developing the capability for smart hospitals. Synergistic development in the health care sectors of Shenzhen and Hong Kong is an innovative endeavor in GBA development and it is a very good news to the patients of the two cities.

The Financial and Currency Connect is of prime importance in the GBA's development agenda and from it originates joint undertakings in both "hard connect" and "soft connect". As an international finance center, Hong Kong's finance market operates on a mature system with a well-developed governance structure. Its capital markets pride themselves in being highly efficient and diverse. Global financial institutions and top professionals in the field find home in Hong Kong. In terms of its China-specific profile, Hong Kong is the largest offshore CNY capital pool and clearing center in the world. Shenzhen is one of the three largest financial centers in China. Its financial markets and fintech are both at the forefront of development in the nation. Shenzhen and Hong Kong will fire up the engine for GBA development, draw upon their respective strengths and complement each other in the implementation of cross-boundary financial reforms. Initiatives in fintech, digital currency, cross-boundary finance and financial regulation will be the priority for further collaboration. There will be more pilot schemes in the regional financial markets, the successful implementation of which will become the exemplary for the GBA.

Sustainable development has been in the global spotlight and its influence has risen appreciably. ESG and the "dual carbon" strategy have thus become increasingly important in China's national development agenda as well. As an international financial center, Hong Kong already has the basic infrastructure and governance framework in place for development in this respect. Its ESG disclosure requirements are in keeping with international developments, and its green finance markets are expanding rapidly with government support. Similarly, the mainland has also been speeding up its development of ESG and green finance. There has been joint exploration in policy compliance and market

infrastructure by the two cities in order to facilitate the connectivity of green finance markets domestically and across the boundary. The trend of green and sustainable finance is irreversible. And it presents enormous investment opportunities as well as capital needs. As each city develops its own ESG initiative, interconnectivity will enable breakthroughs that have far-reaching implications for the GBA.

The effects of integration in the past few years are seen, especially as they are reflected in the collective strength of the GBA. With extensive and thorough cooperation, the region has developed increasingly forceful impetuses for further development. In China's latest "dual circulation" economic strategy, interconnectivity is what propels the region toward the ultimate goal of becoming a world-class GBA. EY and Phoenix TV have always been committed to promoting the six main areas of the connectivity initiative amongst the 11 cities. We assist GBA cities and corporate clients in forging closer economic ties in furtherance of the overall integration in the region. There will be ongoing publication of our insights and research in this respect, themed "Six Connects in the GBA". At the core of our professional services are strengths of our experience, knowledge and technical skills. EY is well-versed in international perspectives, and at the same time we have cultivated keen sensitivities to the unique developmental context of the GBA. We will make valuable contributions to the ongoing effort to raise the GBA's core competitiveness.

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