

Province acting as spearhead for innovation

Forum serves as high-end resource platform for technological advancement in Guangdong



By HAO NAN
haonan@chinadaily.com.cn

The Greater Bay Area Science Forum 2024, jointly hosted by the governments of Guangdong province and the special administrative regions of Hong Kong and Macao, concluded in Nansha district, Guangzhou, on Monday.

This year marks the fifth anniversary of the release of the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area.

During the forum's opening ceremony, Wang Weizhong, governor of Guangdong, said that over the past five years, the Greater Bay Area has continuously deepened the alignment of rules and mechanisms, strengthened cooperation in innovative resources and platforms, and comprehensively promoted its transformation into an international sci-tech innovation center and a high-level talent hub.

Looking ahead, Wang said that Guangdong will thoroughly implement the innovation-driven development strategy, accelerate the construction of a complete innovation chain, and advance the province's development as a leader in education, technological innovation, and talent cultivation.

He emphasized the importance of optimizing the innovation environment, fostering a comprehensive innovation support system, promoting the mutual enhancement of industry and technology, and developing new quality productive forces tailored to local conditions.

Wang warmly invited scientists and innovative talents from around the world to come to Guangdong and the Greater Bay Area to embark on entrepreneurial endeavors and share in the promising future of sci-tech innovation.

This year's forum featured an opening ceremony, a main forum, 14



The Greater Bay Area Science Forum 2024 is held in Nansha district of Guangzhou, Guangdong province. PROVIDED TO CHINA DAILY

subforums, and five special activities. The main forum invited Nobel laureates, academicians from China and abroad, and other internationally influential scientists to deliver keynote speeches.

The subforums focused on cutting-edge topics such as brain science, brainlike intelligence technology, future materials, aerospace, marine science, and green and low-carbon technologies, aiming to support the Greater Bay Area's future industrial development.

A notable event during the forum was a matchmaking session between the Chinese Academy of Sciences and Guangdong, where over 240 sci-tech achievements from 52 CAS institutions were showcased. This led to the on-site contract signing of 12 major scientific cooperation projects set to be implemented in the Greater Bay Area.

Hou Jianguo, president of the CAS, praised the Greater Bay Area for its high level of openness, strong eco-

nomical and innovation vitality, and hopes that the forum would serve as an opportunity to advance original innovation and tackle key core technologies, fostering a robust innovation ecosystem in the Greater Bay Area.

The forum has provided a high-end resource platform for technological innovation in Guangdong, which is an essential economic powerhouse and a leading province in sci-tech innovation in China.

The province's regional innovation capability has ranked highest in the country for eight consecutive years, with the Shenzhen-Hong Kong-Guangzhou technology cluster's innovation index holding the second spot globally for five consecutive years in the World Intellectual Property Organization's rankings.

Guangdong is working on the mutual enhancement of industry and technology, accelerating the construction of a comprehensive innovation chain that includes basic

research, technological breakthroughs, achievement transformation, technological finance and talent support.

Gong Guoping, a senior official of the Guangdong Department of Science and Technology, said the province has placed increasing importance on basic research in recent years, establishing diversified investment and funding systems for related projects.

Xu Yigang, a CAS academician and researcher at the Guangzhou Institute of Geochemistry, said that "Guangdong has always valued technological innovation, encouraging and supporting scientists to explore uncharted territories of innovation."

"Thanks to the innovation-friendly atmosphere created by the province, I have been able to focus on basic scientific research and achieve certain results in some frontier fields," he said.

Additionally, Guangdong actively develops and promotes advanced

and applicable technologies, promptly applying them to specific industries.

Since August 2018, the province has been advancing core technology research in nine major fields, covering 12 batches of 754 projects.

Currently, it is conducting targeted scientific research to meet the evolving requirements of 20 national innovative industrial clusters and eight industrial clusters, each capable of generating over 1 trillion yuan (\$138.12 billion) in annual production output value. This focused approach positions Guangdong as the driver at the forefront of the development of strategic emerging industries and future sectors.

To expedite the industrialization of new technologies, Guangdong has been proactively building supply-demand matching platforms and constructing an innovation ecosystem with compatible incentives.

Leveraging the Greater Bay Area National Center of Technology Inno-

vation, which has been operating since August 2022, as the main platform, the province is establishing an innovation hub that integrates scientific research and achievement transformation. The hub has already attracted four innovation platform projects and gathered teams with over 600 members.

Enterprises form the foundation for developing new quality productive forces. In Guangdong, enterprises contribute about 90 percent of research institutions, researchers, R&D funding, and invention patent applications.

Guangdong boasts over 76,000 high-tech enterprises, having the highest number in the country for eight consecutive years.

By improving the decision-making consultation mechanism for technological innovation, Guangdong supports enterprises in building high-level innovation platforms and encourages them to lead or participate in national and provincial scientific research tasks.

Guangdong's status as a prominent province in sci-tech innovation stems from its bold exploration in accelerating the construction of a comprehensive innovation-supporting mechanism.

For example, the province's sci-tech innovation regulation, which came into effect on Oct 1, introduces several innovative institutional measures to promote sci-tech innovation from multiple perspectives throughout the entire process.

This groundbreaking regulation includes several pioneering initiatives, such as the establishment of a provincial fund for basic research in local legislation, the proposal for a distinct management system for the entire process of duty-related sci-tech achievements transfer, the support for universities to establish a discipline adjustment mechanism aligned with national strategic needs, and the proposal of a novel mechanism to stimulate the transformation dynamics of new-type research and development institutions in local legislation.

Greater Bay Area rides wave of sci-tech collaboration

By YUAN SHENGGAO

The first phase of the Chinese Medicine Guangdong Laboratory was inaugurated at the Guangdong-Macao In-Depth Cooperation Zone in Hengqin, Guangdong province, on Nov 9.

The lab has four strategic tasks, namely the interpretation of traditional Chinese medicine principles; the prevention and treatment of major diseases; the development of new TCM treatments; and enhancing international scientific and technological competitiveness.

It focuses on five major research fronts: the development of the human immune defense system, interpretation of human body phenotypes and syndrome principles, research and technological development in the prevention, diagnosis, and treatment of major chronic diseases, development of modern diagnostic and therapeutic equipment, and new types of drugs.

Its goal is to become a domestically and internationally influential large-scale, high-end scientific research platform, promoting interdisciplinary integration and innovation in TCM, and establishing a national center for sci-tech innovation and industrial development in the field.

The Hengqin laboratory, as a high-end TCM technological support platform jointly built by Guangdong and the Macao Special Administrative Region, will significantly enhance the foundation of TCM inheritance and innovation and its research application capabilities, said Yu Yanhong, head of the National Administration of Traditional Chinese Medicine. "It will become a model for in-depth cooperation in scientific and technological innovation in the Guangdong-Hong Kong-Macao Greater Bay Area."

Another example of the cooperation between Guangdong and Hong Kong is the inauguration of the Hong Kong hub in China's national computing power network, co-founded by Shenzhen-based Pengcheng Laboratory and the Hong Kong University of Science and Technology in December 2023 in the Hong Kong Special Administrative Region. That means Hong Kong scientists can also leverage the computing power on the Chinese mainland for research.

"The cooperation between Shen-



The first phase of the Chinese Medicine Guangdong Laboratory is put into operation on Nov 9. PROVIDED TO CHINA DAILY

zhen and Hong Kong is a reciprocal arrangement and mutually beneficial," said Gao Wen, academician of the Chinese Academy of Engineering and director of Pengcheng Laboratory.

"The laboratory needs to capitalize on Hong Kong's international advantages to strengthen global cooperation. At the same time, as a national strategic research force based in the Greater Bay Area, the laboratory has a commitment to develop together with Hong Kong," Gao said.

After the Guangdong-Hong Kong-Macao Joint Laboratory collaborative innovation mechanism was initiated in 2019, the list of the third batch of 11 such joint laboratories was announced in early January of this year, bringing the total number of joint laboratories to 31.

Through the collaborative efforts of teams from Guangdong, Hong Kong and Macao, the joint laboratories have made sound progress in research and the application of research results, talent team introduction, and exchanges in sci-tech cooperation with Hong Kong and Macao.

In recent years, Guangdong has continuously deepened its scientific and technological exchanges and cooperation with Hong Kong and Macao, promoting trilateral collaboration mechanisms, platforms, projects, talent and other aspects to accelerate the transformation of the Greater Bay Area into an internation-

ally influential hub for sci-tech innovation.

Leveraging major platforms such as Hengqin, Qianhai, Nansha and Hetao, the three regions of Guangdong, Hong Kong and Macao have made practical progress and achieved results in "people exchanges, capital flow, tax balance and logistics connectivity" in recent years, Gong Guoping, a senior official of the Guangdong Department of Science and Technology, said at a news conference for the Greater Bay Area Science Forum 2024 in early November. Building on this practical experience, the three regions are accelerating the alignment of rules and mechanisms in the field of sci-tech innovation, advancing a series of reform measures, Gong said.

How to make the cross-boundary flow of scientific research materials free is one of the challenges and a major concern for researchers. Currently, the pilot reforms for the efficient cross-boundary flow of scientific research materials in Guangzhou and Shenzhen have been smoothly progressing, with more "green channels" being gradually established.

In July 2023, the Guangzhou science and technology bureau, together with Guangzhou Customs and other departments, jointly issued the city's first positive list for cross-boundary scientific research materials. Based on the list, a series of measures for customs facilitation

were introduced, with Guangzhou Laboratory and the Hong Kong University of Science and Technology (Guangzhou) designated as pilot units, allowing materials included in the list for the pilot units to access the green channel.

In January, Guangzhou Laboratory completed the construction of a cross-boundary rapid testing center for biological samples at Shenzhen Park in the Hetao Shenzhen-Hong Kong Science and Technology Innovation Cooperation Zone. The center, which is the first of its kind in the Greater Bay Area, is focused on collaborative research in therapeutic drugs, rapid testing and public support services.

The "white list" system for research institutions in the Hetao innovation cooperation zone provides more convenient and efficient customs clearance services for researchers and their accompanying items, who commute to the park for work on a daily basis.

Guangdong has made substantial progress in cooperation in research management rules and mechanisms with Hong Kong and Macao.

Hong Kong and Macao institutions undertaking research projects funded by the Guangdong provincial government can follow the auditing standards prevailing in Hong Kong and Macao for acceptance and completion.

Guangdong's key research and development programs and the projects initiated by the Guangdong Provincial Natural Science Foundation, among others, are open to Hong Kong and Macao, supporting research institutions from the two special administrative regions in leading or taking part in Guangdong provincial government-funded research projects. As of early November, Guangdong has disbursed more than 460 million yuan (\$63.51 million) in research funds to Hong Kong and Macao.

A vast pool of talent is taking shape in the Bay Area, with mechanisms for talent mobility and collaborative innovation rapidly being perfected. In recent years, Guangdong has introduced a series of talent innovation policies and measures in areas including Hengqin, Qianhai, Nansha and Hetao, making the Bay Area a magnet for high-level talent to settle for innovation and entrepreneurship.



To learn more about Guangdong, China's prominent economic hub, and to stay informed about the latest GBA developments, please scan the QR codes to download the GD Today app or visit the website