

Building bridges and making connections

Bay Area strengthens transport links among its cities and further afield



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The Shenzhen-Zhongshan Link officially opened on June 30 as a major national project in the Guangdong-Hong Kong-Macao Greater Bay Area.

The bridge-island-tunnel project in South China's Guangdong province spans about 24 kilometers, and is located approximately 30 km south of Humen Bridge and some 31 km north of the Hong Kong-Zhuhai-Macao Bridge. It has an eight-lane dual carriageway, with a speed limit of 100 km per hour.

Serving as a crucial part of the transportation network around the Pearl River estuary, the passage connects two major urban clusters on the east and west banks of the river.

It also shortens the driving time between Shenzhen on the river's east bank and Zhongshan on the west bank to within 30 minutes, and brings more cities like Foshan, Zhuhai and Jiangmen into the one-hour economic circle around Shenzhen.

"Guangdong will enhance service efficiency of its road network and further improve the highways along the Shenzhen-Zhongshan Link and its neighboring areas, in a bid to provide efficient and safe support for the development of the Greater Bay Area," said Lin Feiming, head of the Guangdong Department of Transport.

The project showcases advanced infrastructure construction in China and is a vivid example of the country developing into a strong transportation nation, Lin noted.

It strings the urban clusters of the Bay Area together with Humen Bridge, Nansha Bridge, the Guangzhou-Shenzhen Expressway and the Guangzhou-Zhuhai east and west expressways, which can boost the interconnection of people, goods, capital and information across the Pearl River.

The rail transit network has also played a role in shortening the journey time between cities in the Bay Area.

On May 26, the Guangzhou-Foshan south ring and Foshan-Dongguan intercity railway opened for operation, connecting with the Foshan-Zhaoqing and Dongguan-Huizhou intercity lines.

Together they form a 258-km railway corridor that serves as an east-west artery in the Bay Area, featuring 39 stations across five cities. The trains can run at a maximum speed of 200 km/h.

By the end of 2023, the Bay Area had about 60,000 km of road mileage, including more than 4,500 km of expressway mileage. It has at least five expressway connections to each of the Guangxi Zhuang autonomous region, and Hunan, Jiangxi and Fujian provinces.

The railway operating mileage in the Bay Area exceeded 2,700 km as of 2023 and the urban rail transit operating mileage reached 1,373 km, both ranking among the highest in the country.

Moreover, the Bay Area has been accelerating the construction of world-class port and airport clusters. In 2023, the total annual cargo throughput at six such ports reached more than 100 million metric tons. By 2025, the annual cargo throughput of all ports in the Bay Area is expected to reach 2.1 billion tons.

The international shipping network, centered on the Guangzhou and Shenzhen ports, continues to improve in the Bay Area. It has opened about 450 international container liner routes, linking with more than 300 ports in more than 100 countries and regions worldwide.

In 2023, airports in nine major cities in the Pearl River Delta reached an annual passenger throughput capacity of more than 131 million, an increase of 147 percent over 2022.

Currently, the Bay Area has seven airports and the Guangzhou Baiyun Airport has ranked first in the country in passenger throughput for four consecutive years.

Promoting high-quality interconnectivity of transportation infrastructure is one of the key tasks to advance the economic development of the Bay Area, local officials said.

In the following years, Guangdong is to accelerate the construction of such projects as the Huangmao Sea Channel and Shiziyang Tunnel; better manage and utilize the Hong Kong-Zhuhai-Macao Bridge; and improve the main transport channels from the Bay Area to the eastern, western

and northern regions of Guangdong.

The total mileage of expressways in the Bay Area is expected to reach 5,500 km by 2025 and 7,100 km by 2035.

In terms of railways, the province plans to pilot the integration of trunk railways, intercity lines, suburban railways and urban rail transit, forming a rail-linked circle of city clusters.

In addition, Guangdong will build world-class economically efficient, intelligent and environmentally friendly port and airport clusters with Hong Kong and Macao to sharpen the competitive edge of the clusters in the Bay Area.

By YUAN SHENGGAO

The Shenzhen-Zhongshan Link, connecting the two cities in South China's Guangdong province, is gaining immediate popularity among residents and businesspeople in the Guangdong-Hong Kong-Macao Greater Bay Area.

Data from Guangdong Transportation Group show that within the first 24 hours of operation, the traffic volume exceeded 125,000 vehicle trips; in the first 72 hours, 305,000. The daily traffic volume is projected to reach 100,000 vehicle trips.

The landmark project has slashed the journey time between the regions on the eastern and western banks of the Pearl River. This improvement in connectivity helps develop the Bay Area as a thriving living circle and injects momentum into the area's overall economic growth.

For instance, a Hong Kong native surnamed Chan lives in Zhongshan with his family and works in Hong Kong. Before the Shenzhen-Zhongshan Link opened, he returned to Zhongshan to visit his wife and children every two weeks.

"It used to take at least three to four hours to travel back and every time I got home, I was exhausted. With the opening of the Shenzhen-Zhongshan passage, I'll be able to visit Zhongshan more frequently," he said.

Furthermore, the passage assists interactions among three out of the province's five major metropolitan circles.

The Guangzhou, Shenzhen and the Pearl River estuary's west bank metropolitan circles essentially cover nine mainland cities in the Bay Area. Together the three contribute approximately 90 percent of Guang-

dong's five major metropolitan circles' GDP. Their combined permanent population accounts for more than 70 percent of the five circles' total. Through coordinated development, the economic benefits of the passage are expected to reach all cities in the Bay Area.

The opening of the Shenzhen-Zhongshan Link allows for more efficient industrial collaboration between the eastern and western regions across the Pearl River and opens the door to industrial synergy and integrated growth within the Bay Area.

Shenzhen, on the east bank of the Pearl River, is poised to establish itself as a leading global hub for advanced manufacturing. To this end, the city needs essential resources such as land from the regions on the west bank of the river to create fertile ground for its robust innovation capabilities, financial muscle and resource integration strength.

On the other hand, cities on the west bank of the Pearl River, including Zhongshan, are seeking to leverage the Shenzhen-Zhongshan Link to promote the integration of industrial and technological innovation on both sides of the river. They wish to build on Shenzhen's innovation advantages in resources, platforms and talent, to empower the transformation and upgrading of their own traditional manufacturing industries.

While Shenzhen is separated from the cities on the western bank by the Pearl River estuary, industrial collaboration between them has been closer since the construction of the mega project began seven years ago.

China Nuclear Power Technology Research Institute, headquartered in Shenzhen, has invested 2.5 billion yuan (\$343.72 million) to establish a research base in Zhongshan.

In Zhuhai, another core city in the Pearl River estuary's west bank metropolitan circle, Shenzhen Shineyoung New Energy Technology has invested more than 2 billion yuan to build a new

energy storage industry base in the city's high-tech industrial zone.

In Jiangmen, also on the west bank of the estuary, Shenzhen Top-Peak Electronics has targeted the extensive local agricultural market. The drone supplier from Shenzhen has poured 30 million yuan into setting up a base in Jiangmen and plans to extend its business to the agricultural drone market in western Guangdong and even the neighboring Guangxi Zhuang autonomous region.

This new economic cooperation model featuring "research on the eastern shore coupled with manufacturing on the western shore" has led to an increasing number of businesses forging close ties between Shenzhen and various cities on the western shore of the Pearl River.

For example, Shenzhen Xinyichang Technology is a company specializing in the manufacture of high-end intelligent equipment. It registered a subsidiary in Zhongshan in 2017 and began constructing a high-end intelligent equipment manufacturing base in the city a year later. By 2023, the Xinyichang-invested industrial park, spanning more than 70,000 square meters, was fully operational.

As the industrial park is less than 2 kilometers from the Zhongshan exit of the Shenzhen-Zhongshan Link, research and production will be more closely integrated, said Yuan Moli, an executive from the company.

On top of that, the passage assists in a convergence of two world-class technological innovation corridors: the Guangzhou-Shenzhen-Hong Kong region and the Guangzhou-Zhuhai-Macao region.

The journeys between the four major platforms for Guangdong-Hong Kong-Macao cooperation — Hengqin, Nansha, Qianhai and Hetao — have been shortened due to the opening of the Shenzhen-Zhongshan Link. This will enhance their role as engines to drive comprehensive cooperation among Guangdong, Hong Kong and Macao.



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World records highlight pioneering technologies and materials

The Shenzhen-Zhongshan Link serves as a core hub for the integrated transport system in the Guangdong-Hong Kong-Macao Greater Bay Area, connecting Shenzhen and Zhongshan, as well as Nansha district of Guangzhou in Guangdong province. Involving more than 10,000 builders, the megaproject has set 10 world records and helped to create 15 core materials and key technologies. In turn, these innovations contribute a Chinese solution to the sphere of global cross-sea passageway engineering.

