

SPOTLIGHT

Dawn of a superhub

Beijing's new airport to be a major transportation center and development engine for the region, designed for people's living and working convenience

By DAVID BLAIR
davidblair@chinadaily.com.cn

Beijing Daxing International Airport, now taking shape on former farmland south of the capital, will be much more than an airport. When completed by October 2019, it will be a hub for air, high-speed rail, subway, highway — and even bicycle — traffic.

It is also expected to drive development throughout the Beijing-Tianjin-Hebei region, known as Jing-Jin-Ji.

In addition, the 150-square-kilometer planning zone around the airport is expected to become a center for research, industry, logistics and cultural activities, as well as a pleasant place to live.

"The airport area is designed for people, for their living and working and convenience," Liu Dingding, vice-general manager of Beijing New Aerotropolis, told *China Daily*. "Living areas will be designed around 'life circles' in which all the daily necessities of life can be found within a 15-minute walk from residences."

Beijing New Aerotropolis was set up by the Daxing district government and Beijing Yizhuang Investment Holdings Corp to plan the long-term development of land adjacent to the airport. The hub will be partly located in Daxing, a southern district of Beijing, and partly in Hebei province. Yizhuang is a town in Daxing.

Located 43 kilometers from Tian'anmen Square, the new airport sits exactly on the capital city's traditional north-south central axis, which was established during the Yuan Dynasty (1271-1368).

It is in the middle of a triangle formed by the port city of Tianjin, roughly 100 kilometers southeast of Beijing; the new city of Xiongan, which is under construction in Hebei about 100 km southwest of Beijing; and the southern sections of Beijing.

Because of its location, the airport will be a key link in two national economic development strategies — the Xiongan New Area, an economic zone that will reduce Beijing's noncapital functions, and the economic integration of the Beijing-Tianjin-Hebei region.

Unlike the generally linear designs of the past, Daxing airport will be shaped like a flower, with a central hub used for passenger processing, ticketing and security. Five petals of the flower will lead to the gates, and administrative offices will be located in a sixth petal.

The design of the airport, which

will be the world's largest in terms of area, ensures that the farthest gate is just a 600-meter walk from the central hub.

By using distributed zones of operation, the airport is set up so that passengers will need to walk less than eight minutes to or from a gate, and luggage will arrive at the carousel in less than 13 minutes after a flight's arrival.

High-speed rail and Beijing subway stations, meanwhile, will be at underground levels of the airport, ensuring what is called "zero-distance" changes between transportation modes. And, for the first time at any airport, according to Max Hirsh, a research professor at Hong Kong University (HKU), there will be two levels of roads leading to the departure areas to reduce traffic congestion.

Cao Yunchun, director of the Institute of Aviation Economics at Civil Aviation University in Beijing, said plans for the Beijing-Tianjin-Hebei region and the Xiongan New Area, along with the Belt and Road Initiative, are driving a new round of technological transformation. He said air transportation is especially important to central and western parts of China, which are not close to the sea.

Growth driver

The State Council, China's Cabinet, created two airport economic zones — Daxing and one in Zhengzhou, in Central China's Henan province. Ten more airport zones were created by the National Development and Reform Commission and the Civil Aviation Authority.

China is currently building eight new airports per year and will have a total of 260 by 2020, up from 175 in 2010, according to the 13th Five-Year Plan (2016-20).

Cao said that the Zhengzhou zone has had a growth rate of 19.4 percent per year and thus has become a growth driver of Henan province.

In October, airport-area development experts and practitioners from many countries met in Beijing at the Sustainable Airport Areas International Seminar 2018, organized by Beijing New Aerotropolis and Hubstart Paris Region, an organization that promotes development of the regions around Paris' airports.

The idea of an "aerotropolis," meaning city development with an airport as its center, drives much current airport development.

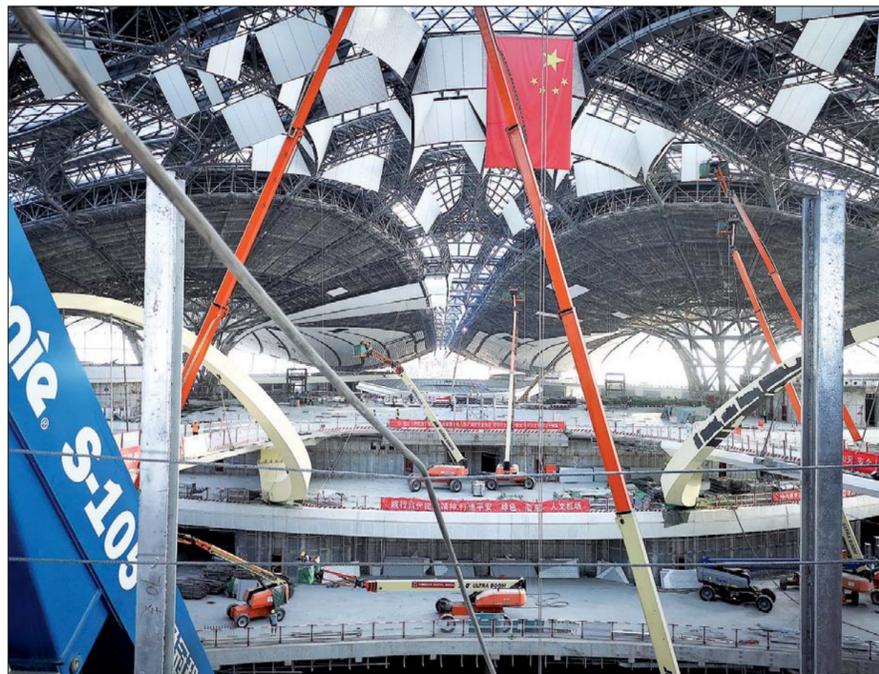
"The aerotropolis will provide services to the Jing-Jin-Ji area — international culture exchange, international

trade and international industrial cooperation," said Liu of Beijing New Aerotropolis. "Jing-Jin-Ji people will have lots of opportunities to work in this area."

In addition, airports, especially in Asia, are becoming destinations unto themselves — with recreational facilities, conference centers and shopping either at the airport or nearby.

In the hit US movie *Crazy Rich Asians*, the main character walks through the new Terminal 4 at Singapore's Changi Airport and says: "I can't believe this airport has a butterfly garden and a movie theater. All we have at JFK (New York City's leading airport) is salmonella and despair."

Beijing Daxing International Airport, meanwhile, is being designed as an efficient transfer hub for international travelers going on to other cit-



Clockwise from top left: Daxing airport is still under construction; Members of the sustainable airports seminar examine a model of the airport; A delegation from Atlanta airport in the US state of Georgia takes a selfie at Daxing airport; Workers are pictured on the roof; The entrance to the departure gates. PHOTOS BY DAVID BLAIR / CHINA DAILY



ies in China or elsewhere, according to Kong Yue, vice-general manager of the airport.

At Beijing Capital International Airport to the north, he said, less than 10 percent of the passengers are transfers. Members of the SkyTeam global alliance, which includes China Eastern Airlines and China Southern Airlines, will move to the Daxing airport from Beijing Capital airport, thus facilitating transfers.

One goal of the Daxing airport's designers is to give travelers something to do, and somewhere to spend money, while waiting for their continuing flights.

Liu said the Daxing airport represents the first time an airport will be a driver of national development. He said the airport will play three roles.

First, it will be a conference center to support Beijing's roles as a political, cultural and international communications center. Second, the new airport zone will have many aviation-related and innovation-related industries. Third, it is in a cross-provincial area covering Beijing, Tianjin and Hebei province, so it will support coordinated development of all three.

"Beijing is special because it is the capital of China, so many companies want to land here," Liu told the recent seminar in Beijing. "That means we need to choose the industry, to select the companies. If you don't have strict requirements, maybe some of the low-end industries might want to come. So we have to have strict access indicators."

"We are also looking into how to create a world-class business environment. In terms of infrastructure, for example, we will have an underground corridor. We are even going to have a bicycle expressway in order for people to be able to stay, live and work here," Liu added.

"We are also doing research on how to improve the business environment, including the government approvals," he said. "This is about public services, government services and green development capabilities. All of these will be part of the business environment creation."

Hirsh, the HKU professor, said Hebei province and the southern parts of Beijing have long been less wealthy than northern Beijing, where many universities and Beijing Capital International Airport are located.

For the Beijing-Tianjin-Hebei region, "the challenge is how we can make sure that the whole region is attractive to people from all walks of life," Hirsh said.

"How can you make sure that these satellite cities are going to appeal to a wide range of people of different income and education levels? If you don't have a plan for that in place, it will lead to more social problems."

Such airports in China "are increasing the aerial connectivity of the cities, but they are also kind of doubling as a strategy for urban expansion and rural development," Hirsh added.

"This fits in with the larger glob-

al trends in which you have rapidly growing large cities that face pressure on the historical inner core," he said. "What is happening a lot in China is to build very large transportation nodes as a way to direct traffic and activity outward."

"In the case of Beijing, this has a bigger dimension because it is not just about extending the city outward but about regional integration and rural reform, trying to bring some of the benefits of proximity to Beijing to underserved communities farther out ... This is a tremendous opportunity for urban redevelopment."

Planners around the world also struggle to ensure that airports create job opportunities for poor people and those with fewer skills. For example, Hartsfield-Jackson Atlanta International Airport in the US state of Georgia, which is the world's largest airport in terms of passenger traffic, has not transformed the relatively poor areas nearby.

Todd Greene, executive director of the Atlanta University Center Consortium, an association of traditionally African-American colleges and universities, said most of the neighborhoods near the Atlanta airport are relatively poor, and many of the jobs being created by companies near the airport pay around \$100,000 a year.

Economic catalyst

However, the skills of nearby residents qualify them mostly for jobs that pay half that amount or less, he said. Better education is needed, but it is also crucial to shape development that is appropriate for local workers, he added.

Greene also said: "What is happening with shared prosperity? Is the development of the airport for the airlines? Should the industries that develop around the airport be for the people or the politicians? Is it for the short term or for the long term? Will the industries provide durable benefits for the people?"

Beijing's Daxing airport, meanwhile, is seen as a good example of collaboration between China and Europe. It was designed by ADP Ingenierie, an engineering subsidiary of the company that operates the Paris airports; London-based Zaha Hadid Architects; and the Beijing Institute of Architectural Design.

Zaha Hadid, the Iraq-born British architect who died in 2016, was the primary designer of the Daxing airport.

Alexander Kirby, founder and managing director of Final Approach, a company that focuses on developing "airport cities," has worked closely with Gatwick Airport in London.

He said connectivity with China has grown significantly now that Gatwick has direct connections with Chengdu in southwest China's Sichuan province, Chongqing and Tianjin and is about to start a service to Shanghai. He added that the automotive and aerospace companies around Gatwick do a lot of business with China.