

Infrastructure Aerotropolitan ambitions

China's frenzied building of airports includes work on city-sized projects

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POLITICIANS in London who have been debating for years over whether to approve the building of a third runway at Heathrow Airport might find a visit to Zhengzhou—an inland provincial capital little known outside China—an eye-opening experience. Some 20,000 workers are labouring around the clock to build a second terminal and runway for the city's airport. They are due to begin test operations by December, just three years after ground was broken. By 2030, officials expect, the two terminals and, by then, five runways will handle 70m passengers yearly—about the same as Heathrow now—and 5m tonnes of cargo, more than three times as much as Heathrow last year.

But the ambitions of Zhengzhou airport (pictured) are far bigger than these numbers suggest. It aspires to be the centre of an "aerotropolis", a city nearly seven times the size of Manhattan with the airport not a noisy intrusion on its edge but built into its very heart. Its perimeter will encompass logistics facilities, R&D centres, exhibition halls and factories that will link central China to the rest of the global economy. It will include homes and amenities for 2.6m people by 2025, about half as many as live in Zhengzhou's main urban area today. Heathrow struggles to expand because of Londoners' qualms, but China's urban planners are not bothered by grumbling; big building projects rarely involve much consulting of the public.

The idea of airport-centred cities is not a Chinese one. John Kasarda of the University of North Carolina helped to promote it in a book he co-wrote, "Aerotropolis: The Way We'll Live Next", which was published in 2011. He is an adviser to Zhengzhou Airport Economic Zone (ZAEZ), as the aerotropolis is called. China, however, is well-placed to turn Mr Kasarda's etymological mishmash into reality. The Chinese see airports as "competitive assets", he says, not "nuisances and environmental threats"—although many cities, inspired by another American-invented term, insist they want to turn themselves into green "eco-cities". New urban centres are being built on greenfield sites across the country. Some are being developed in such disregard of demand that they are becoming eerily empty "ghost towns". But they are giving planners ample opportunity to build airports alongside new cities, instead of as afterthoughts.

Construction of airports is proceeding at a blistering pace. The government's plan for 2011-15 called for 82 new airports to be built during this period. In the event, more than 100 have sprung up. Officials are fond of what they call "airport economics", by which they mean the use of airport-building to boost local economies.

Only in a handful of cases do overseers of these projects explicitly say that they want to build aerotropolises. One example is in the southern outskirts of Beijing, centred on a village called Nangezhuang, where a groundbreaking ceremony was held on December 26th. Little activity is visible: a few pieces of construction equipment sat idle one recent afternoon at the edge of a sorghum field as herders walked their sheep along a nearby dirt road. But by 2019 the area is due to be turned into one of the world's largest airports, at a cost of 80 billion yuan (\$13 billion). As much as 80 billion yuan more will reportedly be spent turning the surrounding area into an economic and industrial hub.

Some wonder whether all this is necessary. Wang Tao of the Carnegie-Tsinghua Centre for Global Policy, a think-tank in Beijing, calls the airportconstruction frenzy "misguided". He believes many of the cities building big airports do not need them, thanks to a rapid expansion of the country's high-speed rail network in recent years (see map). Local officials, Mr Wang says, are after political prestige and a quick boost to local GDP;



they are happy to leave their successors to grapple with the debts. Many new airports operate at a loss. Mr Kasarda, however, defends the Zhengzhou project. It is misguided, he says, to assess an airport's value solely by its operational profitability; its role as an economic driver also needs to be taken into account. "We are putting the aerotropolis theory into practice," says Zhang Yanming, ZAEZ's Communist Party chief.



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Zhengzhou has a long history as a trading and transport hub, well-connected to China's largest population centres. It also has an abundant supply of labour (it is the capital of Henan province, one of China's most populous, with more than 100m people). The ZAEZ allows duty-free import and re-export of goods and components. Mr Zhang says this has attracted more than a dozen makers of mobile phones, including Foxconn, a Taiwanese-owned firm best known for producing Apple iPhones. The Foxconn factory employs 200,000 people year-round, and 300,000 at times of peak production. Three-quarters of the iPhones made globally in the past three years came from ZAEZ, Mr Zhang says. Such small, high value-added, products benefit greatly from ready access to airports.

Beijing's aerotropolis also has built-in advantages, not least strong support from the central

government. Mr Kasarda acknowledges that his concept cannot work everywhere, especially in many of China's smaller cities. But he remains excited by the many suitable candidates in a country that is willing—and more able than most— to give it a try. "They can really design not just an airport, but an aerotropolis from scratch," he enthuses. It remains to be seen how enthusiastic residents will be about the jets roaring over them.

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