

CBI MEMBERS FLYING HIGH IN CHINA

A briefing for CBI members on Beijing's new Daxing Airport and China's Aviation Sector

The CBI would like to extend its congratulations to the Members involved in the opening of the new Daxing Airport:



THALES

ARUP



thyssenkrupp



AIRBUS



HUAWEI

Airbus was selected to provide the airport's radio communications infrastructure. The company will equip the airport with one Tetra DXTA server, and nine TB3 base stations, which will be mutually backed up by existing Airbus-installed communications infrastructure at Beijing Capital Airport, to allow airlines and ground service companies to benefit from seamless communications between both airports. To find out more, please follow the [link](#).

Arup was appointed as the fire engineering consultant for the new Daxing Airport, and was responsible for developing the airport's evacuation strategy in the case of fire, where the terminal's vast size and the large number of occupants presented a major design challenge. Arup's engineers managed to reduce the airport's 'escape distance to the outside' from 200m from most points within the central zone to just 75m. The engineers achieved this by installing 29 emergency stairwells that would not only shorten the distance between the various floors of the terminal, but also divert passenger flow to prevent bottlenecks. To read more about Arup's involvement in the Daxing Airport project, please follow the [link](#).

British Airways was the first international airline to announce that it would move its Beijing base to the new airport. From **October 27th, 2019** all British Airways flights between Beijing Daxing and London Heathrow will depart from their new base in the **South** of Beijing. To read the press release in full, please follow the [link](#).

Huawei will supply the new airport with its own 5G base station and Wi-Fi indoor location technology, that will help airport operators rapidly calculate passenger traffic and open or close security check channels in order to improve operation efficiency. Furthermore, many of the security check points will employ facial recognition technologies that will speed up security check times and add to the airports environmental credentials by allowing many passengers to travel paperless. The system will first be applied for domestic flights and then widely adopted by all flights.

Thales was chosen to provide systems to both Beijing Capital Airport and the new Daxing Airport that will allow greater automation of the terminals' air traffic management capabilities. Furthermore, all Air China, China Southern, China Eastern and HNA aircraft landing at the new airport will do so having made use of Thales avionics equipment, ranging from flight control systems, through to navigation, communication & surveillance software. To read more about Thales' involvement in China's aviation sector, follow the [link](#).

Thyssenkrupp won a major order to supply 155 elevators and 22 escalators to the new airport. The company will be the sole supplier to China Southern Airlines, one of the airport's main developers and customers. Thyssenkrupp will deliver a mobility solution for the airport that means that, despite the tremendous scale of the main terminal, it will take less than 8 minutes to travel from security to the further gates. At approximately 7.5 million square feet in area, Beijing Daxing Airport will be the biggest terminal in the world when complete, boasting the largest air traffic control centre, aircraft hangar and airline catering centre in Asia. To read the full press release, please follow the [link](#).

Opportunities for UK companies within China's aviation sector:

Fast Facts:

- The number of Chinese tourists travelling overseas between 2001 and 2018 grew by a massive **1,326%**
- Chinese tourists collectively **spent \$277.3 billion in 2018 in overseas travel**, making them the biggest tourism consumer group and worth almost double the value of American globetrotters (\$144.2bn)
- The China overseas tourism market has enormous potential to expand. Currently only 9% - or 120 million - Chinese people possess a passport
- **The fastest growing air freight market in the world is between China and North America** with a consistent annual growth rate of 10% year-on-year since 1995
- China is building **8 new airports per year**

Figure 1: Number of civil airports in China from

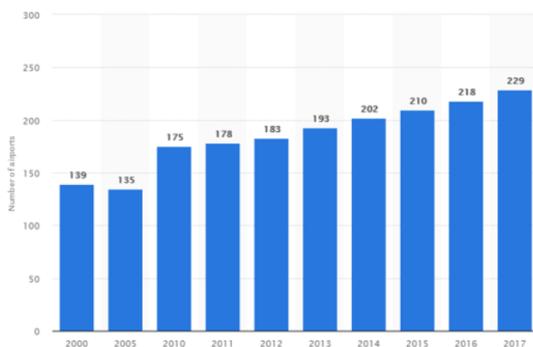
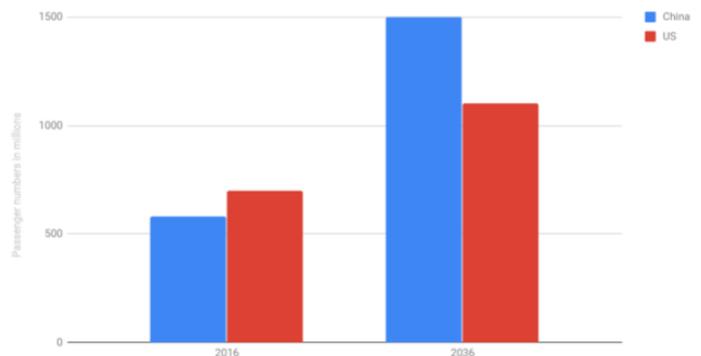


Figure 2: Comparative size of China and US aviation



General Overview:

- The UK's involvement in China's aviation sector is diverse, and ranges from transporting Chinese customers around the world, to providing the avionics, radio and satellite technologies which keep aircraft in the air and airports moving efficiently. UK companies also ensure that Chinese aircraft remain fuelled, well maintained, and piloted by highly trained professionals who have had access to the latest in air flight simulator technology
- Companies of all sizes are finding opportunity in integrating into the supply chains of Chinese companies active within the country's aviation sector. There is particularly high demand in China for specialist technical knowledge and / or components, which can often only be sourced from a specialist SME within the sector
- The UK has a long history of supporting the development of China's aviation sector. Many British companies serving the China market have been doing so for more than 30 years

Despite a long history of collaboration with China in the development of its aviation sector, many challenges remain. China's airspace remains relatively closed to foreign carriers, for example. Chinese domestic carriers are prioritised when seeking permission to take off and land at major airports, and even then, they come second to Chinese military aircraft in the vicinity. Foreign carriers have been lobbying hard to China to sign up to something similar to the 'US-EU Open Skies Agreement', which would grant greater commercial freedoms to foreign carriers.

Challenges unique to China present themselves to UK companies seeking to provide technical know-how or parts to China's aviation sector. Because much of China's aviation sector is controlled by the Aviation Industry Corporation of China, a state-owned enterprise responsible for everything from aircraft systems, through to aircraft manufacture for both military and civilian purposes, there are legitimate concerns that any technology provided to partners within China's aviation sector could find dual application in China. Therefore, companies looking to partner with Chinese companies within the country's aviation framework, should note that collaborative work conducted in China on related technologies / systems may fall foul of Chinese dual-use export control regulation, if trying to repatriate such products to the UK.

The high levels of pollution in China's environment presents a unique engineering operating environment for UK companies seeking to provide components to Chinese airlines.

Irrespective of the challenges foreign companies face when trying to enter China's aviation market, many are finding significant opportunity. For many component and systems suppliers, China has accelerated to become their second largest global market, while being well on course to become number one in the coming years.

CBI Member Success Stories:



During Chinese President Xi Jinping's state visit to France in March, **Airbus** announced that it had agreed a €30 billion deal with China to sell a package of 300 aircraft to the country. The agreement, between China's Aviation Supplies Holding Company and Airbus, covered 290 Airbus A320 aircraft and 10 A350 XWB jets. As of the end of January 2019, Chinese airlines had some 1,730 Airbus aircraft in operation, according to the company.



BP Air announced recently that it had entered into a joint venture with China National Aviation Fuel Group to operate a general aviation fuel business in Southwest China, covering Sichuan Province, Guizhou Province and Chongqing Municipality. The arrangement seeks to marry BP's best practises and innovative fuelling technologies with CNAF's strong presence and local expertise to create a more sustainable China's aviation sector.



DHL announced plans to take advantage to China's new Greater Bay Area initiative to increase the capacity of its freight flight services by launching a new air freight service from Leipzig, Germany to Guangdong. Demand from Chinese manufactures has reportedly grown to such an extent that, despite DHL currently operating flights from Shenzhen to Leipzig six times a week, the company could not meet demand. Consequently, DHL plans to invest more, in what will become its 'Guangzhou Gateway' to China. Read more [here](#).



Gatwick Airport launched a new service to Shanghai this year, off the back of record year on year growth of +20.8%. The new service is flown by China Eastern, which is China's second largest airline, and has increased capacity between the two hubs by over 70,000 new seats and more than 3,7000 metric tonnes of cargo. Read more [here](#).



China became **Rolls Royce's** second largest market in 2016, ahead of the company's own estimations. The country is a key growth market, where Rolls Royce is seeking to double its engine count. Deals, with major Chinese airlines, such as that signed between Rolls Royce and China Eastern Airlines last year, which was worth \$1.4 billion, are helping the British engine manufacturer on their way. Read more [here](#).

Areas with Potential for UK Businesses:

- The CBI Beijing Office has heard that there is appetite from regulators not only in China but across the wider Southeast Asia region to work with training providers in best practise in air traffic control, airport management, airport fire safety and English language training specifically for aviators
- Handling of freight between the UK and China. There is further opportunity for regional airports with freight-handling capabilities to handle Chinese freight. As the UK's motorways become more congested, there is a growing need to diversify the entry points of imported components that are essential to the supply chains of companies manufacturing in the UK's regions
- Research & Development collaboration with Chinese airlines and AVIC in composite materials and other elements of structural engineering for aviation

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