

ACI World AIRPORT DEVELOPMENT NEWS

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Focus on Europe

GREAT BRITAIN

London’s Gatwick Airport pledged on 15 July 2016 to invest an additional GBP 200 million in revitalizing the airport, including the expansion of the North Terminal and South Terminal departure lounges, and upgrading shopping facilities. Additional projects include expanding the Immigration halls in both terminals and creating additional aircraft parking stands. The improvement works will form part of London Gatwick’s five-year Capital Investment Plan (CIP), and will bring the total amount to be spent on transforming the airport up to GBP 1.2 billion.

London Gatwick made the announcement during a visit by London Mayor Sadiq Khan, who also underlined his support for the construction of a second runway at the airport. Khan said: “Gatwick is the front door to London for millions of visitors to our city and I salute their decision to spend another GBP 200 million on improvements to the airport. They have put together a formidable plan that is a fantastic display of their confidence in London.

“The new Prime Minister has a very important decision to make regarding new airport capacity, and I urge her to rule as swiftly as possible in favour of a second runway at Gatwick, which would bring substantial economic benefits,” said Stewart Wingate, CEO, Gatwick Airport, adding: “As Gatwick rapidly approaches full capacity, this increased investment paves the way for our second runway project. As we enter a new era for Britain, we must be agile and decisive as a country to show the world that we are open for business. **It is now clear that only Gatwick can deliver the runway Britain needs to boost international competitiveness and trading links at a time when it is most needed, and we can do that before 2025.** This investment will also make sure that we can continue Gatwick’s record growth and transformation. Our total investment since coming into private ownership now stands at GBP 2.5 billion as we operate the world’s most efficient single runway airport.”

The expansion of London-Heathrow - and in particular the third runway - must be a part of the U.K. Government’s Brexit plan, says John Holland-Kaye, the airport’s Chief Executive.

Only Heathrow’s expansion will allow British exporters to trade with all the growing markets of the world, strengthening Britain’s position as one of the world’s great trading nations. In uncertain economic times, a GBP 16 billion privately-funded infrastructure investment will create up to 180,000 jobs and GBP 211 billion of growth across the U.K. By approving Heathrow expansion, the Government will send the strongest signal possible that Britain is open for business and confident in its future. Recent polling shows two thirds of MPs think greenlighting Heathrow expansion will strengthen Britain’s economy. MPs also ranked Heathrow expansion as the top infrastructure project for spreading growth across Britain. The need to elect a new leader of the Conservative Party before Brexit talks can start in Brussels and before any major infrastructure decisions are taken could further delay the Heathrow expansion until

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after October 2016. On the other hand, the exit of former London Mayor Boris Johnson as a candidate – a fierce opponent to a third runway at Heathrow – has removed a major obstacle. In a statement, the Department for Transport said: “The Government remains fully committed to delivering the important infrastructure projects it has set out and will also continue to take forward important legislation put before Parliament in the Queen’s Speech.”

Airport operator Manchester Airports Group (MAG) has been granted planning consent for its ten-year, GBP 1 billion transformation programme for Manchester Airport. The project is a series of 60 enhancements intended to provide passengers with improved facilities and services, including the expansion and reconfiguring of Terminal 2; improvements for Terminal 3; the demolition of Terminal 1; the introduction of new and enlarged airside transfer facilities with direct linkage between T2 and T3; construction of a U.S. pre-clearance facility; a new, enlarged security hall; the introduction of self-service check-in facilities; 50 new food & beverage and retail outlets; new stands and piers; and an improved access road system to and from the airport.

Brad Miller, Transformation Programme Director at Manchester Airport, said: “Everyone at Manchester Airport is delighted that a significant piece of our GBP 1 billion transformation programme has been given planning consent. This means work can truly begin on the project, which - over the next decade - will see the airport continue to develop as a global gateway for the U.K., directly to and from the North. The enhancements the project will make will enable us to further adapt, modernize, and transform the customer service experience we are able to offer passengers and airlines. It will also allow Manchester Airport to continue in its role as job creator and economic provider for Greater Manchester and the wider region.” -- Jacobs Engineering Group has announced that it has been awarded a contract to provide multi-disciplinary engineering and selected architectural services to Manchester Airport under the Manchester Airport Transformation Programme (MAN-TP).

NORWAY

Avinor's modernization programme is on schedule, with a goal of annual savings of NOK 600 million from 2018. In 2017, the expansions of the Bergen and Oslo airports will be completed. In the first quarter of 2016, air traffic at Avinor's airports increased by 2.7%, with the increase most pronounced in international traffic, while offshore helicopter traffic continues to decline. Avinor Air Navigation Services saw a reduction in income from overflights over Norway of 1.9%. The operating result comprised NOK 71 million, compared with NOK 143 million for the same 2015 period. “We provide good and safe operations, our expansion projects are on schedule, and we are set to reach our cost-saving targets. We are very pleased with this. As in previous years, the first few months of the year have yielded a poor result. Aviation is linked to the overall economy, and this is evident from the industry's results,” says CEO Dag Falk-Petersen of Avinor.

DENMARK

According to a new government growth plan, Copenhagen Airport will grow in size with a more flexible interpretation of the planning act. Troels Lund Poulsen, the Business & Growth Minister, said that the airport, already Denmark’s biggest workplace, has the potential to create even more jobs. “It’s sensible to make a big strategic analysis. By giving our airports a better regulatory framework, we can create more jobs, and **when Copenhagen can develop then the regional airports in Jutland will also have better possibilities for developing,**” he said. Poulsen is joined by Hans Christian Schmidt, the Transport Minister, in developing the strategy. Both have previously served as environment ministers and are well aware of the environmental restrictions the planning act imposes. “As Ministers of the Environment, we had the black belt in stopping development. We’ve got quite a lot of experience with that. But now we want to try something new,” Poulsen said. “Our airport planning, especially around Copenhagen Airport, stems from the time when Svend Auken [a former Social Democrat leader who served as Environment Minister from 1993 to 2001 and as Energy Minister from 1994 to 2001] decided everything. Now it’s time to do something different. We want to get more out of

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Copenhagen Airport and the other airports." The two ministers are inspired by the example of Amsterdam's Schiphol Airport and want Copenhagen Airport to serve as a hub, for example for flights to and from India. In 1979, both Schiphol and Copenhagen had around 10 million passengers. In 2014, the number to pass through Schiphol was 50 million, compared to Copenhagen's 26 million.

FINLAND

Airport operator Finavia has embarked on the second phase of a long-term expansion plan for Helsinki Airport. Work began in January 2016 on a new south wing passenger terminal and is part of a broader development project valued at nearly EUR 1 billion.

Construction will see a new wing added to the southern end of the terminal currently serving non-Schengen or long-haul flights. The work is expected to wrap up by summer 2017, just before Finland celebrates 100 years of independence. The cost of the entire development project has been pegged at EUR 900 million. In August 2015, Finavia signed up two main contractors, Lemminkäinen and Destia Group, to complete building and civil engineering work, respectively, on the entire expansion project, in deals jointly valued at EUR 260 million. Finavia said that the goal is to add more space, introduce new services, and streamline long-haul and transit flight operations. Aircraft will also have additional stands and flight turnaround times will shorten. "We are doing everything we can to ensure that construction work will create as little disruption as possible for passengers and airlines," said Airport Director Ville Haapasaari. In addition to expanding passenger and airline services, the project will increase the airport's air traffic capacity. Passengers can also look forward to increase bus transfers between terminals and aircraft. When the new southern wing is completed in 2017, the terminal will grow by 6,850 m². The new extension will be a two-storey building accommodating incoming and departing passengers on different floors. Haapasaari said that the airport's first travelator or moving sidewalk will also be installed in the new section. The aircraft taxiing and parking area will expand by 157,000 m² and will accommodate external parking for four wide-bodied aircraft and three double passenger bridges ensuring more rapid turnarounds.

Once the southern wing is complete, construction will begin on a western wing; that phase should wrap up by summer 2020. The terminal and airfield expansions, acquisition of new wide-bodied Airbus aircraft, and completion of a rail connection between the airport and central Helsinki are all part of the airport operator's strategy to position Helsinki as the premier hub between Europe and Asia and to accommodate 20 million passengers annually by 2020.

THE NETHERLANDS

Amsterdam-Schiphol Airport is to undergo major expansion, including the development of a new terminal and pier. The aim of the expansion is to ensure that Schiphol maintains its competitive position. **The new terminal will be completed in 2023 and accommodate some 14 million passengers a year.**

The new flexible pier will be located near Cargo Station 1 and is expected to be ready for use in late 2019 and will be able to take both narrow and wide-bodied aircraft. **Schiphol is looking for partners with whom to develop its 'Pier of the Future'.** Partners are expected to contribute creative ideas on how Schiphol can achieve its ambitions as cost-efficiently and effectively as possible. The expansion to the south of the current main building fits in with agreements over the airport's long-term growth. As the number of passengers and aircraft movements increases every year, the airport needs more room to accommodate and facilitate this growth which reached 6% in 2015, to 58.2 million passengers, while the number of air transport movements rose by 2.8% to 450,697.

Jos Nijhuis, Schiphol Group CEO, commented: "We are making investments in order to reinforce, improve and expand our infrastructure, our quality, and our accessibility. This commitment has made the realisation of the new pier and terminal possible. It represents a hefty investment that will simultaneously provide the foundation for our continued capacity growth, including long-term aspects such as space to further expand the piers in the future. We additionally intend to invest in the station area, the bus station, Schiphol Plaza and Jan Dellaertplein in the coming years. The sum of these parts will serve to strengthen our international competitive position."

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A great deal of preparatory work towards the development of the new pier and terminal is already under way. For example, modifications are being made to the drop-off road; the parking facilities are being expanded; and the demolition of the Schiphol Cargo Center – a building that has gone unused for a number of years – has begun. Efforts are being made to minimize inconvenience for passengers.

GERMANY

Rumours have been circulating that private investors may come on board to support the much delayed BER airport project in Berlin. The Australian investment bank Macquarie was reported to be among the potential money lenders. According to the *Berliner Tagesspiegel* daily, Flughafen Berlin Brandenburg GmbH (FBB), the Airport Corporation of Berlin-Brandenburg, has been reviewing the offer of large banks to approve a promissory note for the airport's construction. This could inject additional funds to finance the project which so far has been financed by FBB's three owners, the Federal Government and the Federal states (Ländere) of Berlin and Brandenburg. The additional financial requirements are given as EUR 2.2 billion, of which the FBB owners would provide EUR 1.2 billion and private investors the other half. -- While construction costs were initially estimated to reach EUR 2 billion, they have climbed to EUR 5.34 billion by now.

* **In March 2016, FBB had called a EU-wide tender for the preparation of a master plan for the new Berlin airport that would steer the development of the BER beyond the year 2023.**

The plan should cover both the landside real-estate development and the airside extension to meet future growth in traffic. – An in-depth study on why the BER project failed has been released in mid-June 2016. One reason certainly was that there was no project steering group empowered to hire, fire and monitor the management team responsible for the project. In addition to the lack of dedicated decision-making structures, there was an absence of independent assurance and transparency. The Supervisory Board was slow in making decisions and no other function outside the project challenged the management on progress, cost development, and other key risks. The current Managing Director of FBB, Karsten Mühlendorf, was quoted as saying that in future a major consultant would be called in to steer the project.

AUSTRIA

Airport operator Flughafen Wien AG has revealed details of its latest terminal development project for Vienna International Airport. The project will focus on increasing passenger comfort, expanding the shopping and gastronomy offerings, and creating a central security area spanning three gates. Modernizing existing terminal facilities will also enhance the airport's earnings and profitability. By implementing these improvements, the airport aims to achieve a five-star rating after attaining a four-star ranking in 2015. The project will be implemented over seven years, between 2016 and 2023, and is estimated to cost up to EUR 500 million. The Supervisory Board has approved a budget of up to EUR 39 million for the planning process, which is scheduled to begin roughly after two years of project development. Terminal 2, located between T1 and T3, will be modernized and expanded as part of the proposed expansion. The existing security checks, located at Gates B, C and D, will be relocated and a central security screening area installed to enable passengers to move freely between the three terminals. After the security check, passengers will be able to use all of the shopping, F&B and lounge facilities, as well as other passenger services. All facilities and the infrastructure of Terminal 2 will be completely modernized, bringing a new look to the building. The terminal's roof will be renovated, and the walls, floors, and lighting upgraded. The baggage claim area will be expanded by adding three new baggage carousels to serve passengers arriving at Gates C and D.

A new building will be constructed towards the southern side of Terminal 3, adjacent to the check-in area. This will add up to 10,000 m² of new space for shopping and food & beverage services, as well as a new waiting area. The new building will create a connection to Pier East and other terminal areas, enabling the passengers to conveniently move through all gate and shopping areas. It will also provide spectacular views of the airport apron, and will feature new exclusive lounge areas. **There will also be a comprehensive redesign and modernization of the two-level East Pier, which**

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handles A380 aircraft, along with its D gates. The partition walls of the old D gates will be replaced by light, spacious gate areas. A docking facility will be created to enable the pier to handle widebody aircraft. A new and high-quality shopping and gastronomy space is being added to the pier. Work is already under way, with adaptation work in progress. The regular operation of the A380 is scheduled to begin in summer 2016, while completion is expected by the end of June 2016. Completion of the East Pier modernization will increase traveller convenience; as current security check points at the D gates will be relocated to one large central security area in Terminal 2.

The expansion project at Vienna Airport is divided into four phases. Phase 1 will see the assessment of a selection of the most economically viable and functional alternative designs, over a two-year development phase. The second phase, which will extend over a period of 18 to 24 months, will involve detailed project planning. The approved planning budget will also be utilized. During the third phase, the Supervisory Board will approve the project implementation. The final phase, which is scheduled to begin in 2018, will be implemented under various sub-projects.

Julian Jäger, member of the Management Board of Flughafen Wien AG, said: "Thanks to the resolute implementation of our quality strategy, Vienna Airport is now at an internationally recognized 4-star airport level. In the past few years Terminal 1 was completely modernized, Pier West was newly and more attractively designed, the shopping plaza was reorganized, and numerous other improvement measures were carried out. The projects we have presented aim to provide passengers with greater comfort and a much more diverse shopping and gastronomical offering. It is our clear objective to become a 5-star airport by implementing these improvements." Günther Ofner, the other member of the Management Board, said: "The earnings strength and profitability of the company will be sustainably improved on the basis of these economically optimized investment projects. As a strong developer, we will ensure project implementation is on schedule and on budget. We will invest a maximum of EUR 500 million up to 2023."

POLAND

EUR 120 million has been invested in an extensive modernization of Kraków Airport, including an extension of the passenger terminal, new taxiways, an apron expansion, and a quick rail link connecting with the city centre. The next phase will see renovation of the existing terminal which, once complete, will provide a capacity of 8 million passengers (about twice the current throughput). The remaining works will be completed in mid-2016, and, after this is done, the airport's old and new parts will be merged, providing a total integrated area of 56,000 m², which is four times the surface that was available prior to the expansion works. In total, the investment is valued at PLN 412 million (EUR 96.5 million). The new section of the terminal, which comprises 33,000 m², features Aelia Duty Free stores and a food court of some 1,500 m².

After modernization work at the airport is completed, there will be a new commercial area of over 3,600 m² with ten food outlets and 15 stores. Kraków is the largest regional airport in Poland, located in the country's southern Malopolskie region. The airport is operated by the local firm MPL Kraków-Balice which was set up in 1996 and is jointly owned by Poland's state-owned airport management company PPL, the regional authorities of Malopolska, and the municipal authorities of Kraków and Zabierzow.

FRANCE

Airport operator Aéroports de la Côte d'Azur has officially inaugurated its newly revamped terminal facilities at Nice-Côte d'Azur Airport. The T1 renovation project has centralized the passenger security screening area, created a single shopping precinct leading to all boarding gates, and redeveloped the passenger departure hall to create more space and comfort for travellers. **The project took two years to complete.** A major aspect of the project involved reclaiming T1 landside space to create more space for airside facilities. Nearly 11,000 m² of space has been impacted in T1, leading to a 160% increase in retail space, a 70% increase in lounge space, and an increase of 60% in seating space. **Aéroports de la Côte d'Azur appointed concession operators Lagardère Travel France, SSP, Dufry, and The Swatch Group to create new concepts for the expanded spaces to provide**

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travellers with a unique and enjoyable retail experience. As a result, the concessionaires introduced premium F&B offerings such as La Plage and Pan Garni restaurants from renowned French chef Thierry Marx; local favourites Chez Pipo from Nice, and La Tarte Tropézienne from Saint-Tropez, as well as international chain offerings from Starbucks, Prêt à Manger, and Joe & the Juice. In total, the new concepts have added more than 1,300 m² of restaurant space. In terms of travel retail, the airport sought to completely redesign its offering by creating a multi-sensory shopping experience that follows one continuous walkway. The passenger journey begins in a walk-through duty-free store and leads through to a shopping district containing a number of international brands including Versace, Calvin Klein, Hugo Boss, and Omega. The terminal's VIP lounges have also been refined and improved for more space and greater comfort. The Azur lounge in the Schengen area has been extended from 250 m² to 400 m², and the Riviera lounge in the international zone has been expanded from 410 m² to 670 m². Alongside the T1 project, Aéroports de la Côte d'Azur has been carrying out a number of improvements to its Terminal 2 with the expansion and renovation of some of its facilities. The T2 project is scheduled for completion in May 2017. Dominique Thillaud, Chairman of the Executive Board for Aéroports de la Côte d'Azur, said: "We are proud to inaugurate the new terminal which responds to the expectations, inspirations; and requirements of our passengers. Nice-Côte d'Azur Airport now reflects the unforgettable image of excellence in our region."

Aéroports de Paris has undergone a major rebranding exercise and has inaugurated a new South Terminal International Pier at Paris-Orly, in which Groupe ADP (formerly Aéroports de Paris) has invested about EUR 90 million. The new building houses a new 12,000-m² boarding area and new retail and F&B units. The new name for the airports group, Groupe ADP (announced on 14 April 2016), is described as 'a single banner that unites all core businesses and subsidiaries in France and abroad and reflects the ambitions of a group that is a world leader'. "We wanted to create a single identity that is modern and representative of this promise, in order to write a new page in the history of the company," says Augustin de Romanet, Chairman & CEO of Aéroports de Paris SA – Groupe ADP. "This explains a strong two-fold choice: the creation of a Group brand, Groupe ADP, and a traveller brand, Paris Aéroport. This two-pronged identity will enable us to unite our employees and attract new talented people, but also to make us better known to our clients and partners in France and abroad."

The local referendum on 26 June 2016 on the controversial new Nantes Atlantique Airport at Notre-Dame-des-Landes passed with a 55% majority, ending a years-long battle between environmental activists and the Government. The French Prime Minister Manuel Valls announced days before the referendum that work on the site would begin in October 2016, if the consultation gives the project the green light, assuring the French parliament that the result of the consultation would be decisive. Authorities argue that the greenfield airport will provide a major boost to tourism in western France, but environmental campaigners have fiercely opposed the plans to build it on protected marshland just outside Nantes. The former Mayor of Nantes, Jean-Marc Ayrault, a long-time supporter of the project, ex-prime minister, and current Foreign Minister, has praised the voters' decision. "This is a clear vote on a project that has been so contested, so I think that today the message we can say is: Respect the decision of voters from Loire-Atlantique," Ayrault told AFP. The project involves transferring Nantes Atlantique Airport to a 1,650-hectare site of protected marchland about 30 km north of the city. Approved in 2008, the EUR 580 million project, promoted by construction company Vinci, had been due to start in 2014 but has been repeatedly delayed by protests of thousands of people which occasionally deteriorated into clashes with the police.

The project is widely seen as 'climaticide' (killing the climate) and not compatible with France's commitment to the COP21 Paris Agreement on climate change. It is hard to justify a new airport near Nantes when the runways at the existing airport are far from reaching capacity, but its passenger terminal may need an upgrade. Nantes is also only 135 minutes by high-speed TGV train from Paris. -- Plans for the airport construction have existed for some 50 years. The airport is strongly supported by

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Bruno Retailleau, President of the Regional Council of Pays-de-la-Loire, controlled by the right wing Republican Party and the far right Front Nationale.

BELGIUM

The departures hall at Brussels Airport is all set for the start of the summer season. Work in the area adjacent to the Diamond building in the departures hall is finished and the area was reopened on 17 June 2016 allowing for a larger and smoother passage from the check-in desks to security screening and towards the lower levels, including the arrivals hall, the bus station, and the train station. Since a few weeks, all airlines are back in the departures hall, and major repair works in the Diamond building have been completed. The area that has now been reopened was badly damaged by the terrorist attacks of 22 March 2016 at the airport. In memory of the victims, Brussels Airport Company has put up a commemorative plaque in this area. Before the construction site walls were removed, airport staff were given the opportunity to visit the renovated area, accompanied by psychologists. The area near the Diamond building looks a bit different now. The Brussels Airlines ticketing desk has not been rebuilt yet and 'Flight in mind', the monumental work of art by Olivier Strebelle, was removed because it was damaged during the attacks. In consultation with the artist, it was decided not to repair the work of art so that it becomes a commemorative monument and will be given a new location at the airport. Passenger will be happy to rediscover familiar elements such as the 'Scimitar', a work by Belgian artist Panamarenko that decorates the ceiling of the Diamond building. -- Brussels Airport handled 23.5 million passengers and 489,000 tonnes of freight in 2015. It links the European capital with 226 destinations worldwide, served by 77 different airlines. Since of 2 June 2016, all passengers were again able to check in at the departures hall. Thus, Brussels Airport resumed normal operations in the departures hall a mere two and a half months after the attacks.

SPAIN

With more than 200 million people using the airports operated by AENA each year, Spain is the third biggest handler of air traffic in Europe. Airports such as Madrid or Barcelona are among the top ten European gateways in terms of passenger traffic and aircraft movements. The network of AENA's 46 airports and two heliports has shown uninterrupted traffic growth for the past 30 months. In 2015, they handled 207.4 million passengers (+5.9%). Thanks to expansion and improved infrastructures, AENA's airports have sufficient capacity to assume the estimated growing demands of passengers in coming years. AENA has invested heavily in achieving this and has relied on the services of the Spanish consultant Ineco to plan, draft, manage and commission the most important airport expansion plans in the country.

Madrid-Barajas, now named after Adolfo Suárez, Spain's first democratically elected Prime Minister since the Second Spanish Republic and a key figure in the country's transition to democracy after the Franco years, is one of the top-ranking airports in Europe with the biggest influx of travellers. In order to cope with increasing demand, **AENA set up an expansion project, embodied in its 'Plan Barajas'**, on which Ineco actively collaborated, with responsibility for project management and commissioning. The expansion included two new runways, taxiways, movement areas, and various associated systems. A new terminal building was also built, in order to meet the requirements of over 35 million passengers per year, as well as a satellite building with capacity for 15 million, and a new control tower. Other works included in the Madrid-Barajas expansion project were an airport services tunnel, a carpark, new access roads, and an automated luggage system able to process 16,000 bags every hour.

In the air navigation sector, all the arrival, departure and approach manoeuvres have been designed to adapt to the new requirements, endeavouring to reduce any environmental impact to a minimum. Thus, a new TMA (terminal manoeuvring area) was projected with new control sectors in order to deal with traffic operating on four runways and to respond in a flexible manner to geographic variations in demand. Prior to commissioning, operational safety studies and real-time simulations were carried out, in addition to a runway capacity study in order to establish the maximum performance of the four runways and the specially developed procedures.

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'Plan Barcelona' has put El Prat Airport firmly on the map of European air transport.

Specialists from Ineco have provided technical assistance to the project, managing development and implementing the Plan. The scope of works has included infrastructures such as the terminal building, equipped to deal with 40 million passengers, a third runway, a new ATC tower, an intermodal connection building, and development of a new airport city, extending the aeronautical service and industrial area. Ineco carried out the requisite studies for resizing and restructuring the airspace as a result of the extension of the airfield and operational needs, endeavouring to keep environmental impact to a minimum. When constructing the new control tower, Ineco also worked on defining arrangement of the control positions of the airport's two control towers.

Málaga Airport in the heart of the Costa del Sol is the fourth largest in Spain in terms of traffic volume. The expansion under 'Plan Málaga' is designed to double the airport's capacity enabling it to cope with up to 20 million passengers, modernizing its facilities and increasing intermodality and economic and social development in the area and on the Costa del Sol in general. The project is technically and organizationally extremely complex, as it is concentrated over a short period of time and with limited space, thus a considerable amount of construction work will take place while the airport continues to operate.

Ineco is providing technical assistance to the consultants managing the programme which includes, planning, addressing requirements, defining functional specifications, design, construction, testing, commissioning and final delivery to the airport. The expansion project will include a new terminal building with capacity for processing 9,000 passengers per hour, a new runway and three taxiways, a new platform, new accesses, and new multi-storey car parks. In the light of the work carried out in the Málaga air space, Ineco also designed the departure, arrival and approach manoeuvres so that the runways are able to operate independently without affecting special areas close to the airport. The new Málaga scenario with two runways was the subject of an operational study which defined the possible operating modes and adapted them to the demands of air traffic, making best use of the infrastructures available. Following its expansion, Málaga Airport has become one of the foremost tourist areas in the Mediterranean in terms of capacity, quality and safety.

GREECE

The Fraport-Copelouzos consortium that took over 14 regional airports in Greece promised 20,000 jobs at the presentation of Fraport Greece in April 2016. The German-Greek investment deal was signed in December 2015 as part of a series of privatizations carried out by Greece's sell-off fund TAIPED. Fraport Greece is a holding company controlling the two firms that control seven regional airports each. The transaction cost was EUR 1.234 billion and **Fraport Greece will be running the airports for 40 years. An annual fixed concession fee of initially EUR 22.9 million will be paid by the consortium which will have to invest a total of EUR 330 million until 2020 for the development of the airport infrastructure.** Maintenance and traffic-driven capacity investments will also be made during the subsequent years. The Greek Government will retain the primary ownership of the airports throughout the concession term. Fraport will have a majority share in the concession companies, while Copelouzos will hold the remaining stake.

The 14 regional airports catered for about 23 million passengers in 2015. About 77% of the total traffic at these gateways served international passengers, with the mainland airports consisting of Aktio (PVK), Kavala (KVA) and Thessaloniki (SKG) in Greece's second largest city. The other eleven are located on the islands of Corfu/Kerkyra (CFU), Crete/Chania (CHQ), Kefalonia (EFL), Kos (KGS), Mitilini (MJT), Mykonos (JMK), Rhodes (RHO), Samos (KGS), Santorini (JTR), Skiathos (JSI), and Zakynthos (ZTH).

The heads of the two parent groups, Dr Stefan Schulte and Dimitris Copelouzos informed reporters about the progress of the venture, with Schulte saying that Fraport is in contact with airlines and tour operators interested in bringing more visitors to Greece. That will become possible, Schulte added, when the 14 terminals are upgraded, creating thousands of new jobs, and the airlines obtain the spots they want. In the past, delays have run to two hours per flight, which is not acceptable in the airline industry. Regarding the completion of the agreement, Schulte appeared optimistic that the transaction will be

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completed by the end of 2016. He did note, however, that Fraport cannot start managing the airports before the conditions required are satisfied and sought to play down any reactions and delays recorded ahead of the issue of permits. Schulte stressed that Fraport is in Greece for the long run and projected that traffic would be going up 3% per year.

TURKEY

By the end of May 2016, 25% of construction work for Istanbul New Airport had been completed, and the first stage of the airport with an annual passenger capacity of 90 million will be in service from February 2018 instead of October of the same year, as originally planned. The first section consists of an ATC tower, two runways, and hangars. For ground access, the Yavuz Sultan Selim Bridge, Northern Marmara Highway, a high-speed train, the three-storey Grand İstanbul Tunnel and the D-20 highway - all of which will be completed in the near future - can be used by passengers to get to the airport.

Construction of the airport is planned in four phases. When all phases are complete, the airport will have six runways and four terminals. Construction work began in June 2015 by the Istanbul Grand Airport (IGA) consortium of the five Turkish firms Limak, Cengiz, Kolin, MaPa, and Kalyon who beat three competitors to win the tender for the project with a bid of EUR 22.15 billion in May 2013. A total of six banks will provide EUR 4.5 billion to the consortium of the five Turkish contractors. The consortium inked a loan agreement for 70% of the initial project cost with three state-run banks: Halkbank, Ziraat Bankası and Vakıfbank. The remaining 30% will be financed by three private Turkish banks: DenizBank, Garanti Bankası, and Finansbank. According to the agreement, the loan maturity date has been set at 16 years with a grace period of four years. A total of EUR 6 billion of investment has been planned for the first of four phases of the construction period. While some EUR 4.5 billion of this investment will be made through the deal, the remaining one-fourth will be provided on the consortium's equity.

For airport parking lots, hotels, shopping malls and recreational facilities at the new airport, EUR 1.8 billion have been spent already, and 15,153 people from 16 countries, including 1,500 white-collar workers, are employed. More than 3,000 construction vehicles are deployed in one of the largest construction sites in the world. The number of people employed on site should rise to 30,000 during the busiest construction period. The rough construction work on the 1.3 million m² main terminal building should be completed by the end of 2016. Airport management attaches importance to the use of domestic products in construction, which might be disadvantageous during and after construction. All products for the airport's interior architecture, including floor tiles, counters, steel roof materials, and wooden parts, will be provided by domestic industries. The airport offers a wide range of public transport facilities, such as high-speed trains, subways and buses. The first stage includes a parking lot with an ultimate capacity of 25,000 cars. The airport will have 1,500 aircraft take off and land every day, offer service to up to 200 million passengers annually, provide flights to 350 international destinations, and offer jobs to hundreds of thousands of people when construction is completed.

Other Regions

U.S.A.

The expansion of Chicago-O'Hare Airport will continue with the addition of at least nine new international gates as part of Mayor Rahm Emanuel's effort to make the airport more attractive to foreign travellers. The expansion of the 23-year-old Terminal 5 - which got a major facelift in 2014 - was just the beginning of efforts to modernize the airport. The terminal now has 24 gates. The USD 300 million project, financed by taxes collected by the City from travellers and airlines, would add 1,100 jobs and generate millions of dollars in economic activity for the City of Chicago, officials said. "From adding more gates and improving the international terminal to constructing the most efficient runway system in the country, we are ensuring that O'Hare continues to be an economic driver for the City of Chicago long into the future," Mayor Emanuel said.

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The project also envisions renovating Terminal 2 into the airport's 'central terminal' and adding more domestic gates. That effort, which would cost billions of dollars, is still in development, officials said. T2, the oldest terminal at O'Hare, was built more than 50 years ago. A renovated Terminal 2 could include a new U.S. Customs and Border Protection facility, a departure hall with additional space for passenger screening and shops. If needed to handle the growing number of passengers, new concourses could be constructed to the west, according to plans unveiled recently. "In order to grow, innovate and continue to provide excellent service in a dynamic global aviation system, O'Hare needs to significantly expand and modernize," said Chicago Department of Aviation Commissioner Ginger S. Evans. A sixth east-west runway is set to be built in 2020 to complete the expansion of the airfield, as well as five new gates in Terminal 3.

OMAN

Work on new facilities at Muscat International Airport is progressing at a steady pace and the project is expected to be completed by the end of 2016. The operations related to Packages 11 and 12 are in full swing, with the implementation rate of some parts nearing 90%. Package 11 involves supply and installation of 40 boarding bridges, which are part of the new developments at the airport. Package 12 involves supply, design, installation and operation of aircraft maintenance hangars besides construction of air cargo terminals at the Muscat and Salalah airports. The contractor is currently carrying out pilot operations for the aerobridges, nine of which have already been connected to the power supply. On the progress at the air cargo terminal of Muscat Airport, the contractor said steel structural work is more than 87% complete and the civil works are currently under way.

INDIA

The Navi Mumbai airport project received its final approval - a Stage 2 forest clearance - from the Central Government on 12 July 2016, clearing the way for work on the ground like flattening hills and diverting rivers to start. The Forest Advisory Committee of the Environment Ministry in Delhi gave the nod after being impressed with a presentation made by CIDCO, the nodal authority, on compliance with the 35 conditions the Ministry had laid down while giving its first clearance in 2013. It included handing over a 242-hectare green patch at Sudhagad near Khopoli in compensation for around 250 hectare of forest land for the greenfield airport. Work on the ground - starting from pre-development measures such as land reclamation or cutting of hills, shifting of the extra high-voltage transmission (EHVT) lines that supply power to Mumbai, diversion of the Ulve and Gadhi rivers, and creation of a mangrove lagoon - can start in a couple of months. Work orders for these undertakings have been issued.

"We expect the selection of the main airport developer after financial bidding by October 2016. By the time construction starts by year-end or may be at the beginning of 2017, a certain amount of groundwork will be ready," said a senior CIDCO official. Three bidders - GVK-led MIAL, GMR Group, and Tata Realty & Infrastructure along with their partners - have been shortlisted to build the new airport based on the highest gross revenue share they offer to CIDCO. Completing a process that started in 2007, **the airport has now received all the major clearances required for work to begin on the site.** The Forest Department has finally cleared the project in its fourth meeting of 2016 held on 12 July. Almost all 3,000 project-affected families have accepted the compensation package offered by the Maharashtra State government and have started signing agreements.

The project area covers a little over 250 hectares of forest land - 141.5 ha of reserved forest and 108.6 ha of deemed forest (mangrove). When the Stage 1 clearance came, it laid out 35 steps to be complied with by CIDCO and the State government, including transfer of 242 ha of revenue land to the Forest Department for compensatory afforestation. Handing over of the Sudhagad plot, assurances to plant three times the mangroves in the acquired area, and the precautionary steps promised while diverting the rivers impressed the Ministry of Environment & Forests (MoEF) officials. Mangrove plantation has already begun in Navi Mumbai.

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The Navi Mumbai International Airport is proposed to be developed through public-private participation by setting up a special-purpose vehicle with equity contribution from CIDCO, AAI, and the developer. The project monitoring and implementation committee, chaired by the State Chief Secretary, is made up of senior officials from the State and Central Government, including the Civil Aviation Ministry. The airport, accorded in-principle approval in 2007, is being developed as the second international airport for the Mumbai Metropolitan Region, on the lines of multiple airports for the mega cities of the world. It will function alongside Santacruz Airport and will make up India's first urban multi-airport system.

VIETNAM

The Airports Corporation of Vietnam (ACV) will spend over VND 26.2 trillion (USD 1.17 billion) on the upgrading of airports to meet travel demands and socio-economic development by 2018. In an investment scheme recently sent to the Ministry of Transport, the company said it expects to use some VND 7.8 trillion to upgrade facilities in flight zones and more than VND 18.4 trillion to improve terminals and parking spaces. This is the Corporation's latest plan, aimed at implementing the National Strategy on Transport Development, issued in 2013 by the Government. ACV now manages all 22 airports in the country, including nine international airports. Travel demands are constantly increasing, putting pressure on the major airports at Hanoi-Noi Bai, HCM City-Tan Son Nhat, Da Nang, Cam Ranh, and Phu Quoc. According to the head of the Civil Aviation Authority of Vietnam, Lai Xuan Thanh, Noi Bai International has achieved tremendous growth, reaching 22% in 2015 and already climbing to 31% in the first four months of 2016. -- **IATA has predicted that Vietnam will be the 10th fastest-growing market in terms of additional passengers by 2034.** Therefore, the upgrade of the airports was very necessary, ACV said. Some VND 7.7 trillion (USD 345 million) of the capital being used to finance the upgrade work will be drawn from the State budget and VND 18.4 trillion (USD 824 million) from the Corporation's funds.

Green Airports

With just two months before the start of the 2016 ICAO Assembly, airlines and environmental NGOs are stepping up pressure on governments to reach an agreement on a global scheme to tackle the growing carbon emissions from international aviation. So too is the European Commission, which recently reaffirmed its support for the measure in a report laying out its strategy for a low-emission transport future in Europe, saying that it will review the EU's own aviation ETS scheme in the light of the ICAO outcome. New European airline trade body, A4E, welcomed the Commission's commitment, adding it expected the EU to replace the ETS with the global scheme. However, NGO Transport & Environment (T&E) warned that EU efforts to decarbonise ground transport would be offset by increases in emissions from aviation and shipping. Meanwhile, a meeting has been convened at ICAO in August 2016 to discuss progress by States on the scheme. Although the aviation sector is taking a wide range of actions to reduce emissions, the growth in air traffic is outpacing reductions in emissions, according to the EC in its 'European strategy for low-emission mobility' report, and further progress is needed at the international level. The report said that the EU was "fully committed" to reaching agreement on a global market-based mechanism (GMBM) to address international aviation emissions. "This GMBM and other measures, such as the recently agreed carbon dioxide standard for new aircraft are intended to ensure the carbon neutral growth of international aviation from 2020," the report said, adding that the EU will review the inclusion of aviation in the Emission Trading System (ETS) "in the light of the Assembly's outcome." The EU also pledges to continue its financial and technical contribution through ICAO to capacity-building projects with developing countries, particularly across the African continent and some Least Developed Countries and Small Island States.

The ambitious target by the aviation sector to cap emissions from 2020 and tackle climate change can only be achieved if governments support the ICAO GMBM scheme, said Airlines for

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Europe (A4E), which was set up earlier in 2016 and now includes 11 members, including IAG, easyJet, Ryanair, Air France KLM and Lufthansa. "A4E welcomes the Commission's commitment to the ICAO process and urges governments to reach an agreement at the Assembly to address international aviation emissions at a global level," commented A4E Managing Director, Thomas Reynaert. "We call on governments to support a global deal for aviation carbon emissions because it is the only way we can continue to grow our industry sustainably to meet demand."

Queen Alia International Airport (QAIA) in Jordan has succeeded in completing the third level of Airport Carbon Accreditation, making it the first airport in the Middle East to do so.

The Airport was officially awarded with the 'Optimisation' level of accreditation at the recent 11th Airports Council International (ACI) Asia-Pacific Regional Assembly, Conference and Exhibition in Australia, during which a number of international airports were recognised for their achievements in carbon reduction under the Airport Carbon Accreditation programme.

Through the efforts of Airport International Group (AIG), the Jordanian company responsible for the operation of QAIA, the airport completed the first Airport Carbon Accreditation level, 'Mapping', in 2013, under which priority areas for carbon reduction were identified. In 2015, QAIA became the first airport in the Middle East to complete the second level, 'Reduction', after developing a broad scale carbon and energy reduction plan. Under the third level, 'Optimization', QAIA successfully engaged all of its stakeholders in its efforts, thereby moving together toward a strategic and comprehensive approach to carbon management. QAIA aims to complete the 3+ level of carbon management accreditation, 'Neutralisation', in 2018.

The Airport's carbon-reduction policies have resulted in a tangible decrease in carbon emissions, with QAIA experiencing an average decrease of 0.79 kg per passenger in the three years between 2012 and 2014. Since then, QAIA's commitment to environmental sustainability and its continuous progress through the Airport Carbon Accreditation programme has led to a further carbon reduction, dropping significantly from an average of 3.68 kg per passenger in 2014 to 3.59 kg per passenger in 2015.

Publisher's note: The articles in this special report, compiled for **ACI World**, are edited samples from the biweekly **Momberger Airport Information** newsletter, published since 1973. The newsletter is an advertising-free, global airport news service that consists of 8 modules and allows subscribers to customize their own newsletter package. The items in this **ACI World** report represent only a small sample of the main module (Airport Development) of **Momberger Airport Information**. Additional modules that subscribers can select include: Airport Operations (OPS), Ground Support Equipment (GSE), Air Traffic Services (ATC), Consultant & Contractor (CON), Airport Information Technology (AIT) and Maintenance Base (MRO). An extensive Calendar of Events (CAL) is part of every subscription. For more information and to order an annual subscription, please visit www.mombergerairport.info