

Digitising airport operations

Frequentis looks at how innovative collaboration practices are key to building back better.

AVIATION is on the path to recovery but, besides restarting travel in the short term, this path must address a number of urgent and essential challenges to “build back better”. Restoring public confidence, making aviation more sustainable (from an environmental, social, and economic perspective), and thereby preserving connectivity and aviation competitiveness, are priorities for our industry, as well as essential contributions to global society.

Speeding up airport digitalisation plays a major role in aviation’s recovery, and largely contributes to all of the aforementioned challenges. At airports, in particular the Airport Operations Centre (APOC), technology that improves data sharing between stakeholders is leveraged, enabling enhanced airport operations efficiency, which in turn reduces carbon emissions and improves passenger experience. Data-enabled and technology-driven APOCs provide huge cost-saving potentials and strengthen the airport image as an innovation leader, as it embraces change within the industry.

Frequentis is well-known within aviation and other safety-critical industries for equipping control centres with innovative technology to solve industry challenges. Our key focus

is to enable improved flight predictions, thus allowing for more transparent, streamlined and efficient processes and increased resilience. The Frequentis airport portfolio includes products for improved workflow management, airport operations planning, traffic synchronisation as well as digital tower solutions, allowing for a seamless connection of airport operations and air traffic services.

Strong partnerships

Enabling information sharing and collaborative decision making is a priority. To further strengthen collaboration along with the digitisation process, Frequentis maintains successful partnerships with other leading industry suppliers. Together with T-Systems we aim for further integrated digital airport and air traffic management solutions, largely contributing to total airport management and the respective integration of airside and landside processes. Together, we drive the digital transformation with a particular focus on the overall value chain of airport processes.

Another key example is our partnership with NATS, the UK Air Navigation Service Provider (ANSP). Together we deployed the Demand Capacity Balancer (DCB) solution for

London Heathrow Airport, where it has been in operation since 2017. DCB, including its Target Time of Arrival (TTA) capability, marks a significant development in the capability for airport stakeholders to act, adapt and react to changes, affecting flight traffic arrivals and departures in support of the APOC and the associated Airport Operations Plan (AOP).

DCB is the market leading AOP Management Tool in compliance with the European Common Project One (CP1) regulation. Its founding idea was to enable improved forecasting capacity and demand events, to understand the performance impact of these events and, most importantly, to enable proactive decision making to resolve/reduce those impacts. With this, DCB is more than an operational improvement or evolution. It marks a significant step in the advancement of airport operations. It is opening a new chapter in intelligent control and influence of traffic.

Combining real-time data, analytics results, and advanced simulation capabilities enables scenario-based planning and aids effective collaborative decision making. It supports the airport operational stakeholders to respond in both real-time and pre-planning scenarios to improve operational decision-making and airport performance. Therefore, enabling airports to become a proactive partner of the network in accordance with the ACI “Ground Co-ordinator” concept is a key ambition of Frequentis and our partners. We strongly believe that collaborative spirit and supporting digital solutions are key to achieve the ambitious objectives on our joint path to recover and “build back better”. ✉

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Sustainable digital growth

Technology and digitalisation are supporting the drive for more efficiency and sustainability in aviation, including in airport operations. The Frequentis airport solutions are key enablers for the most effective collaboration between airports and their partners to reduce costs for all stakeholders, achieve their performance objectives, and increase passenger satisfaction. Our portfolio supports local airport collaborative decision-making processes as well as the implementation of an airport operations plan, e.g. to support the airport operations centre.

Meet us at Passenger Terminal Expo, June 15-17 2022 in Paris, zone 1, stand #2100