

SECURITY PROCESS AND PASSENGER FLOW REVIEW

 Birmingham Airport

 United Kingdom

 Process optimisation, 3D fast-time simulation

 2021



THE NEED:



- Future regulation changes by the DfT required upgrades to passenger and cabin baggage screening at UK Airports.
- Birmingham Airport sought to understand the impact of these changes on security area performance.
- Scope of work included reviewing passenger flows, interactions with coexisting processes, delivery strategy, and capacity requirements throughout the upgrade program to enhance the passenger experience.

THE APPROACH:



- In collaboration with Millar Management, EBEA developed custom 3D dynamic models to analyse the performance of the security area at the airport.
- The models considered the interaction between the security area and other processes, such as check-in, passenger access and boarding card readers.
- The developed tools provided insights on various scenarios, including expected capacity, queue performance, occupancies in key areas, and variations in passenger characteristics.

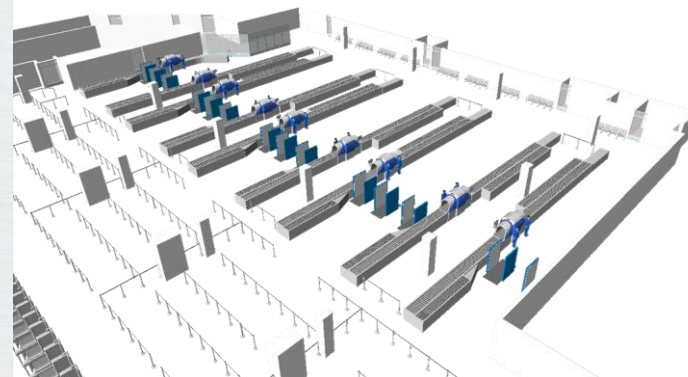
THE SOLUTION:



- Validated proposed area designs and infrastructure provisions for multiple stages of the airport development program.
- Identified minimum and optimal infrastructure levels to meet forecasted demand and performance targets.
- Recommended mitigations to address operational risks and prevent inefficiencies.

KEY OUTCOMES:

- Validation of proposed designs
- Definition of infrastructural requirements
- Mitigation of operational risks



"EBEA Consulting supported our Next-Generation Security project with their experience in terminal design. They helped us in identifying the right solutions for the airport and integrating them into the existing environment. The team at EBEA made sure that the project was delivered within the tight timelines, without compromising on the quality. They paid close attention to the details and always communicated with us proactively, making them a very important partner. We highly recommend EBEA Consulting for projects related to airport security and passenger experience."

Chris Wilson
Head of Terminal & Capacity
Birmingham Airport