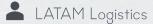
GREENFIELD TERMINAL SECURITY CHECKPOINT PROCESS MODELLING



Barcelona, Spain

Process optimisation, 3D fast-time simulation

2021



KEY OUTCOMES:

- Due-diligence of proposed designs
- Definition of CONOPS
- Identification of minimum lane requirements









- · EBEA Consulting was asked to validate the security checkpoint design for a greenfield terminal, including lane design, and security hall layout.
- The assessment included a due-diligence of the system throughput indicated by the equipment provider, offering the final customer an independent and unbiased view.
- The scope of the project also involved identifying the minimum lane requirements for different design demand levels to ensure queue performance remained within the desired business targets and allowed for performance and contingency planning.

THE APPROACH:



- EBEA developed a tailored set of analytical tools to meet the airport's business requirements, focusing on the operation of the new security checkpoint.
- The analysis included a wide range of sensitivities to assess potential risks to the operation, such as a decrease in lane performance and a reduction in the number of dedicated lanes for different passenger types.
- Through the analysis, EBEA reviewed the various peaks of operation to capture the variability driven by different passenger demographic, and seasonality, providing an overview of the projected staff demand to effectively operate the new checkpoint.

THE SOLUTION:



- Validated proposed lane designs, identified bottlenecks, and recommended improvements for optimal operations.
- · Minimum lane manning requirements were determined to meet business targets for queue times.
- Design options were provided, considering forecasted demand and operational efficiencies.







