INTRODUCTION OF EES IN THE PASSPORT CONTROL PROCESS

Zurich Airport

Zurich, Switzerland

Process optimisation, 3D fast-time simulation

2024

THE NEED:

- Driven by the European Union regulation, a new Entry-Exit System (EES) is required to be implemented in the Border Control areas of the Airport
- Zurich Airport tasked EBEA and HERS with supporting understanding the performance of the Airport Border Control points, after the EES go-live
- The Airport also wanted to understand the performance of the entire Border Control ecosystem, under different operational scenarios and schedules of the Airport Train

THE APPROACH:

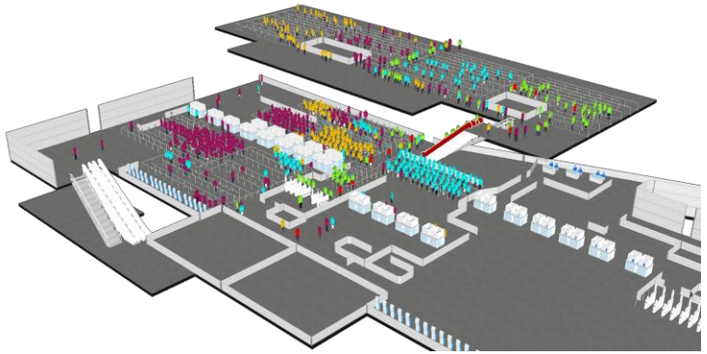
- EBEA conducted a comprehensive analysis of the Airport's historical demand levels and passenger transfer matrix, considering all five Airport Border Control Areas
- The team has developed fast-time simulation models for all the Border Control points, replicating all the possible passenger flows into and out of the facilities
- Within the project, a range of operational scenarios was tested, including different passenger segregation options, Border Control SOPs, infrastructure utilisation levels, staffing levels and performance of the facilities with additional demand levels

THE SOLUTION:

- Identified the most optimal way of passenger segregation in the queueing areas, based on the possible Border Control infrastructure usage
- Assessed the performance of the Areas' with EES kiosks in operation, against a red-amber-green system, based on the business targets and industry best practices
- Provided recommendations on improvements in areas experiencing bottlenecks

KEY OUTCOMES:

- Assisted in developing new operational procedures
- Supported design of new passenger queueing strategy
- Estimated the expected passenger journey performance



Thanks to EBEA's expertise in airport operation and especially in border control processes the introduction of EES later this year in Zurich could have been planned and explained better to the stakeholders. Their understanding of the challenges and identifying possible solutions were valuable while developing solutions to reduce the anticipated wait time and resources needed. EBEA's proposals and ideas were valuable during the entire process, and it was always a pleasure working with the entire team in an efficient way. I am looking forward working with the team again in the future

Alexander Lindner
Professional Project Leader,
Terminal Projects & Development

ebea CONSULTING HERS