

BHD 2040 MASTERPLAN CAPACITY REQUIREMENTS



Belfast City Airport



United Kingdom



Master planning, Capacity planning



2025



KEY OUTCOMES:

- Comprehensive facility requirements analysis
- Phased infrastructure development roadmap
- Space balancing optimization (operations vs. queue)

THE NEED:



- Belfast City Airport engaged EBEA to conduct a comprehensive capacity analysis and identification of minimum infrastructure requirements to support the airport's growth to 2040.
- The project was required as part of the Belfast City Airport Masterplan 2040 strategic planning exercise, where detailed assessment of airfield and terminal capacity was needed.
- The key objective was to define facility requirements aligned with forecasted passenger demand growth from through to 2040, ensuring operational targets and service levels were maintained throughout the forecast period.

THE APPROACH:



- EBEA developed a comprehensive capacity analysis methodology that combined historic performance calibration with advanced demand forecasting and infrastructure modelling.
- The approach included assessment of over 15 key operational areas, from runway capacity and aircraft stands to terminal processes including check-in, security, immigration, and baggage reclaim systems.
- Throughout the project, EBEA worked closely with Belfast City Airport's operational team, York Aviation (demand forecasting), and Todd Architects (spatial planning) to ensure stakeholder alignment and validate the accuracy and applicability of capacity requirements.

THE SOLUTION:



- A detailed capacity analysis report identifying breaking points and minimum infrastructure requirements for each focus year (2030, 2035, 2040).
- Comprehensive facility requirements documentation covering both airside (runway operations, aircraft stands) and terminal infrastructure (passenger processing, queue space requirements).
- Strategic recommendations for phased capacity additions and mitigation strategies to optimize CAPEX investment while maintaining operational resilience and service level targets.



EBEA's capacity analysis work for our Masterplan 2040 delivered exactly the strategic insights we needed to guide Belfast City Airport's infrastructure planning through the next two decades. Their team's aviation expertise and collaborative approach made a complex multi-stakeholder project smooth and efficient. EBEA's team maintained excellent communication throughout, working seamlessly with our operational staff and design partners. The quality of analysis has given us complete confidence in our investment roadmap as we grow to 7 million passengers annually.

Tim Halley

Chief Development Officer
Belfast City Airport