Case study: preparing for recovery

A Brussels Airport-To70 cooperation
Agenda

1. Setting the scene: Brussels Airport

2. Approach for recovery

3. Simulation results

4. Actions
1. Setting the scene

Annual passenger numbers dropped 74% from 26.4 million in 2019 to 6.7 million in 2020; Cargo numbers increased by 2% to 511K tonnes in 2020

- Brussels Airport is a peak-driven airport
- Assets are typically stress-tested during peak times
- Our APOC, Airport Operations, Passenger Services and optimization & planning teams are responsible for assuring sufficient and adequate infrastructure, manpower and equipment is foreseen at all times
- Operational planning is conducted based on variety of parameters and input from internal & external sources
2. Approach for recovery

During the crisis we were able to both meet passenger demand and respect international rules and guidelines

- Main factors contributing to modified airport planning included:
  - (inter-)national restrictions
  - Airline schedule modifications
  - Different passenger show-up profiles and behaviour
  - Additional document checks
  - Hygienic- and social distancing measures
  - Planned maintenance activities
  - Necessary cost saving measures

- Our OPS team initially forecasted bottlenecks in several key areas

- As a benchmark To70 offered running parallel analyses for key processors through FastTime simulation
3. Simulation results

Complete airport model: airside
3. Simulation results

Complete airport model: terminal
4. Actions

By approaching these simulations on both short- and mid-term we are able to constantly evaluate how operational demand and experience can be met, while adhering to required measures and minimizing cost

- The simulations strengthened our analyses, with the advantage of a total airport system approach with high levels of granularity

- We were able to identify:
  - that our current 3-pier system (NS, NS, S) could be reduced to 2 piers
  - that only 1 check-in hall was momentarily required
  - that our walk-to-stand- and bussing operation could be reduced
  - the potential effects (pro’s & cons) of a single-runway operation
  - required infrastructure- and manpower capacity for all operational needs
  - the required amount of flexibility to cope with unforeseen circumstances
4. Actions

Additional actions were undertaken to develop into the ‘new-normal’ post-crisis situation

- We successfully operate as a Covid-test centre at our curb
- We identified which ‘planned’ maintenance could be brought forward in calm times
- We continue to investigate how we can diversify services towards antifragility and generate new income streams
- We also look further ahead in sustainability measures and which process- and technology could impact/facilitate travel
- Our team believes players in the industry should focus on:
  1. Succeed in what will be a tough and challenging recovery phase
  2. Position for re-growth against a range of scenarios in a reinvented industry
Thank you