

# TERMINAL MODELLING

## Fast Time Simulation

---



# MODELLING TOOL

ARCPORT™ is fast time simulation modelling software developed by Transoft Solutions and designed for the analysis of the entire terminal and terminal processes.

This tool allows us to model every terminal area in detail, from baggage drop-off to boarding or immigration. Our models include all types of interactions between passengers, staff or items. ArcPORT provides, along with a variety of reports, interactive 3D visualisations which provide compelling demonstrations of results.

Our Think FTS experts are trained and experienced at using ArcPORT as our primary terminal modelling tool.



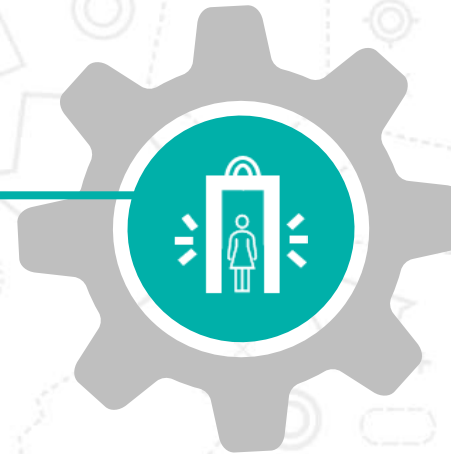
As part of the ArcPORT tool, our analyses can resolve:

- Capacity constraints
- Infrastructure redesign
- Investment on new technologies



## Security

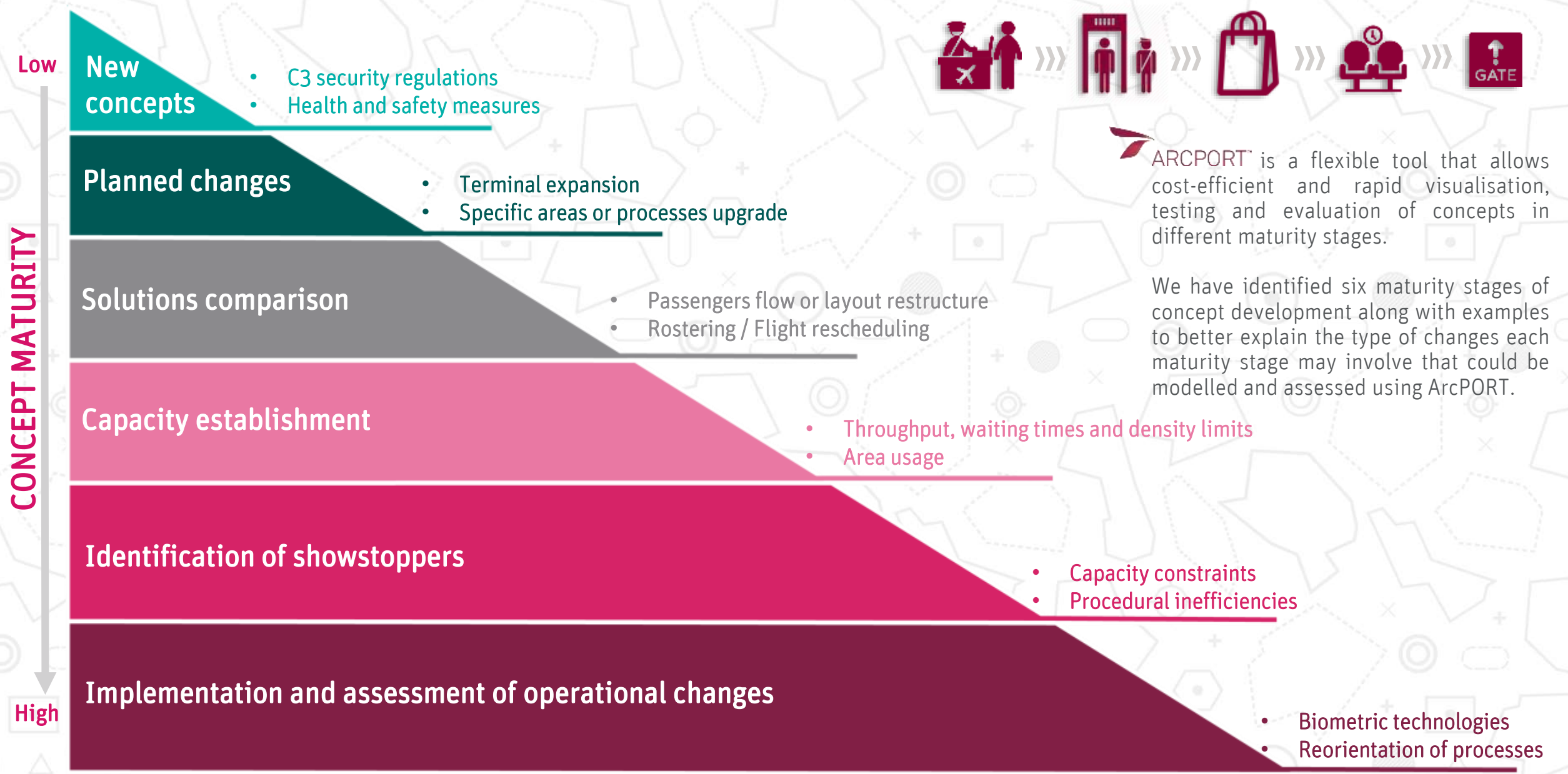
- Planning on the introduction of C3 regulations



## Boarding areas

- Flights rescheduling
- Retail and waiting area usage





ARCPORT™ is a flexible tool that allows cost-efficient and rapid visualisation, testing and evaluation of concepts in different maturity stages.

We have identified six maturity stages of concept development along with examples to better explain the type of changes each maturity stage may involve that could be modelled and assessed using ArcPORT.

# DATA OUTPUTS



ARCPORT™ outputs vast volumes of raw data which require technical and operational knowledge to interpret. Here are some of the results you can expect depending on project requirements:

- Pax. and baggage waiting times;
- Pax. and baggage throughput;
- Pax. and baggage flow definition;
- Capacity constraints identification;
- Rostering;
- Passenger density plots;
- Flight schedule restructure;
- Area and devices utilisation;
- Space requirements;
- 3D visualisations.



At Think, we pride ourselves in being the modern consultancy who will deliver results that are simple, honest, transparent and valuable. We combine the raw data with our qualitative, technical and operational ATM and Airports expertise to provide the whole package.



As an end product, we ensure our clients receive analysed and evaluated information and meaningful conclusions to support the project objectives.





# OUR EXPERTISE – Security

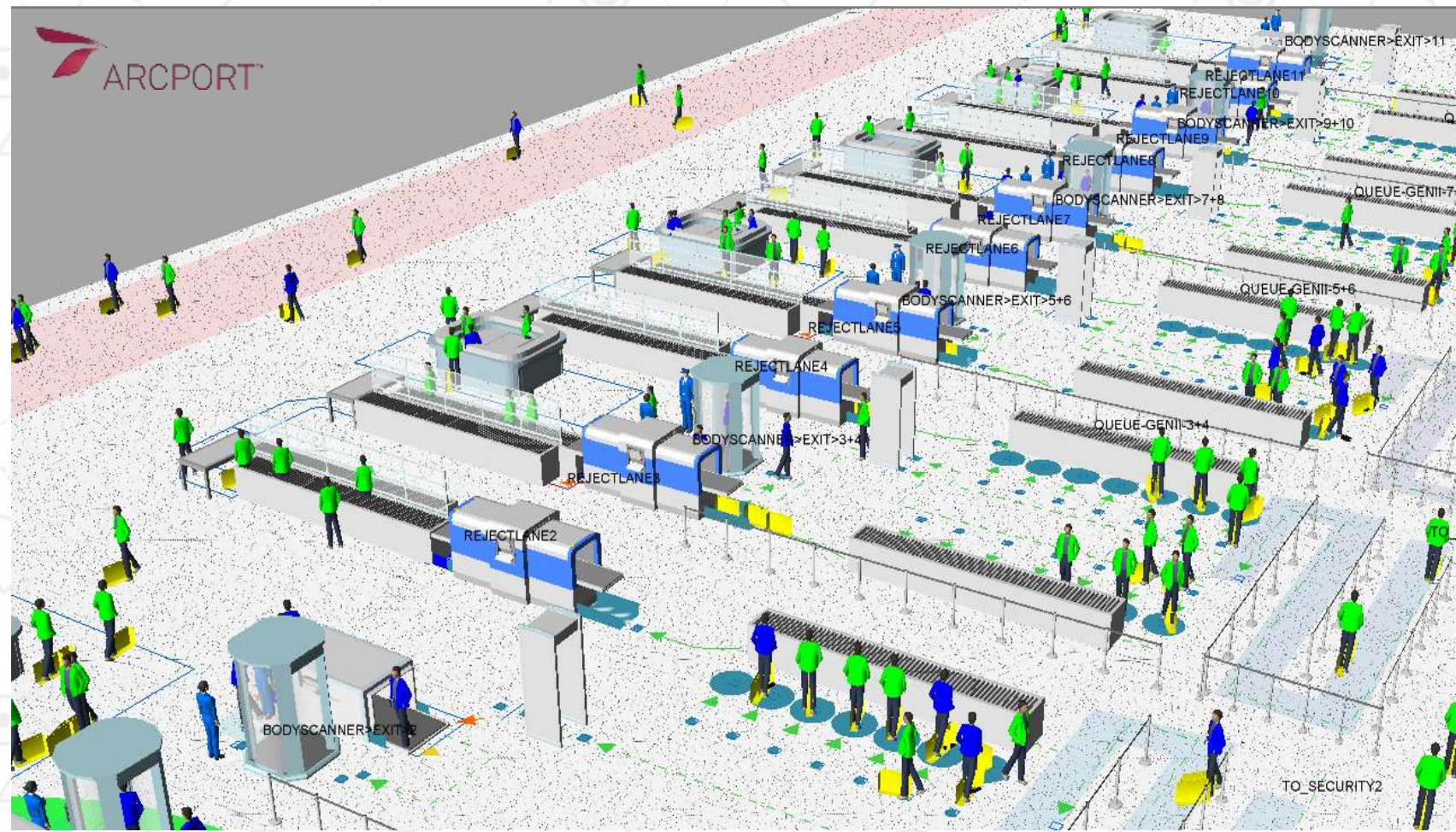


## SECURITY MODELLING

We have helped a major international airport with the upgrade of their security areas since they needed to comply with C3 security regulations.

Our custom-made models were used to generate data, analyse and propose different solutions for a smooth upgrade of the security processes. Our approach, based on throughput/waiting times analyses, allowed us to identify the main capacity constraints.

We then concluded the number of additional CT scanners required for these areas. This was a key advice for them due to the amount of investment these technologies involve.



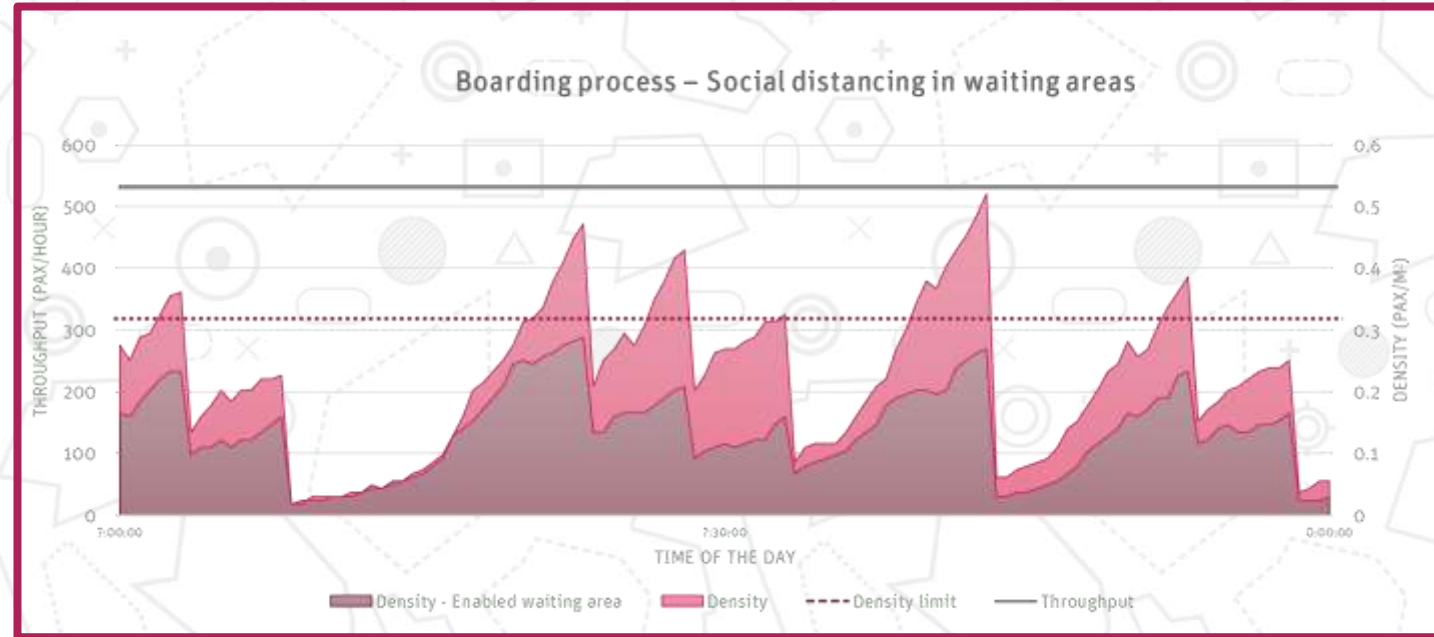
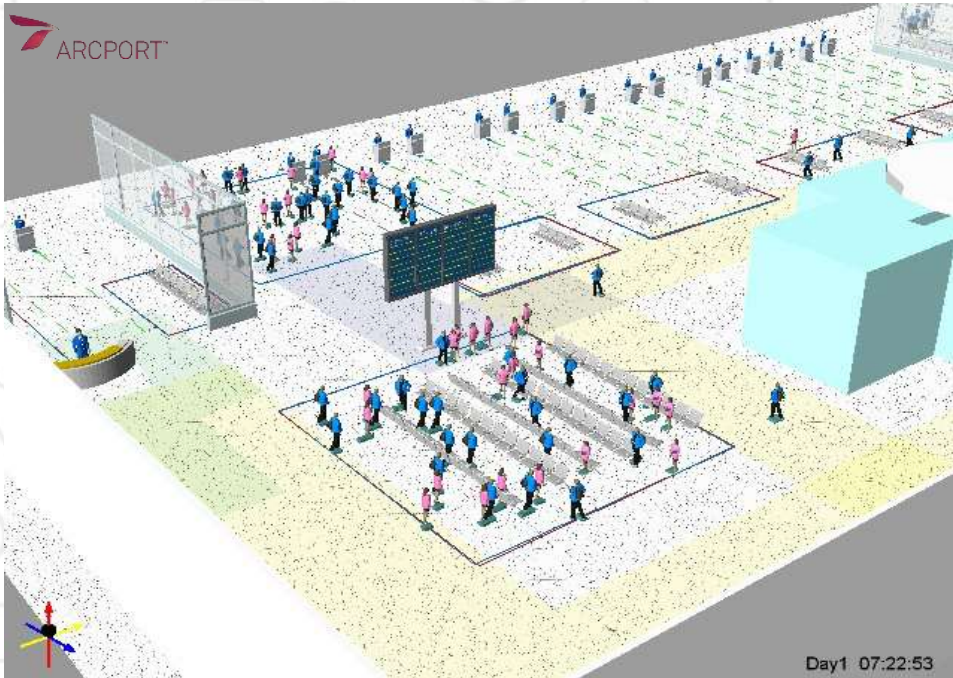


# OUR EXPERTISE – AIRFIELD



## BOARDING PROCESS MODELLING

Due to the COVID pandemic, social distancing entailed a new challenge for airports regarding boarding processes. We restructured an airport's boarding areas to ensure adequate space for social distance.



We conducted density analyses to investigate how passengers could maintain a distance in the boarding areas whilst keeping retail opened, given the amount of income that retail provide to the airport. Flight schedules and passengers flow restructure along with boarding counters rostering were the key factors involved in this study case. Additionally, our final solution would not require further investment in infrastructure.



Trajectory Based  
Operations



Remote and Digital  
Tower



Wake and Time  
Based Separation



Airport CDM



Performance Based  
Navigation



Flexible Use of  
Airspace



Unmanned Aerial  
Systems



Runway  
Optimisation



Virtual Centre



Enterprise and Airspace  
Architecture



Airspace Change



ATCO Team  
Organisation & Training