

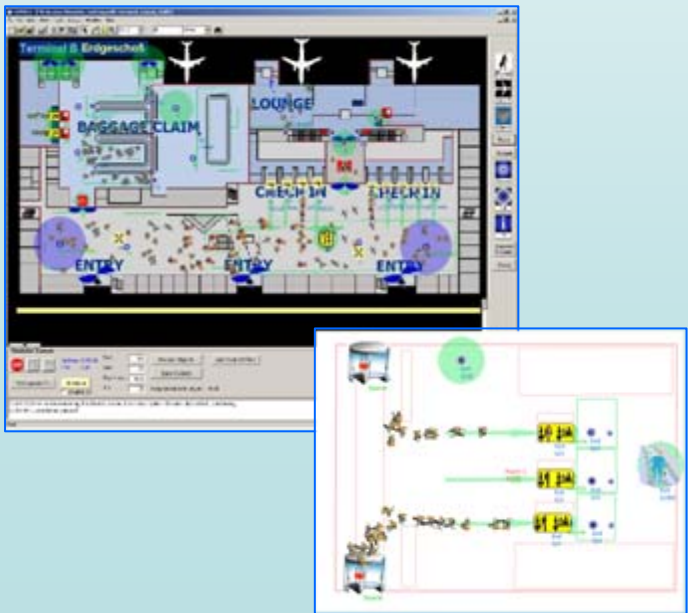
TOMICS – Traffic Oriented MICroscopic Simulator

TOMICS is a simulation software used in ASSET to model and simulate microscopically the behaviour of single passengers so that different characteristics like walking speed, wayfinding, group membership, or process status (e.g. checked in...) can be considered.

TOMICS consists of many universal model elements that provide a high flexibility in modelling of airport activities.

Movement of simulated passengers from process to process is defined through personal attributes that can be inducted before and during the simulation by dint of characterization of the passengers (flight, age etc.) but can be controlled as well externally. While moving, the impacts of magnetic (e.g. group behaviour) and repellent (e.g. evasion) vigours are considered. Moreover different sorts of queuing theories can be modelled.

Thus TOMICS allows the analysis of capacity and bottlenecks aiming at the optimization of airport ground processes.



Consortium

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		Air France Consulting
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Aeronautic Study On Seamless Transport



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Commission

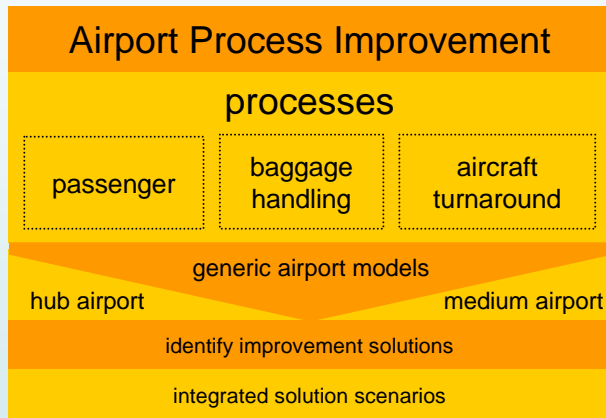


Aeronautic Study On Seamless Transport

Today's challenges of European air transport:

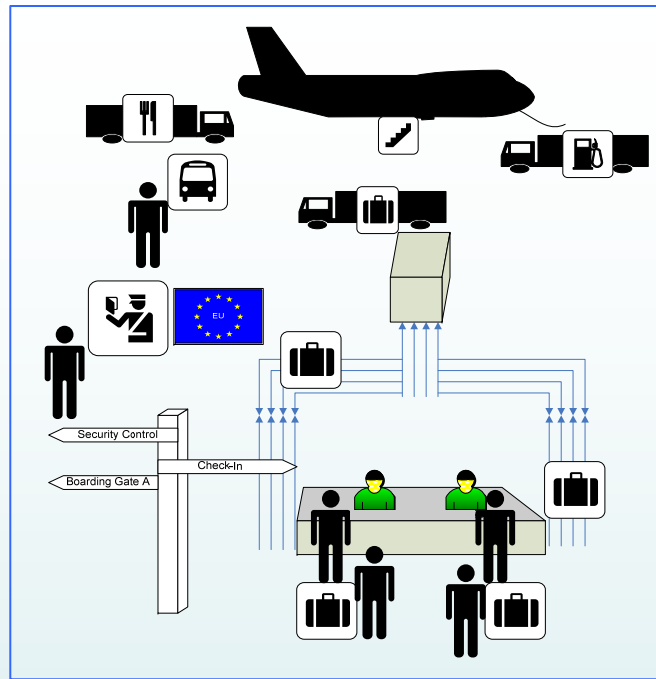
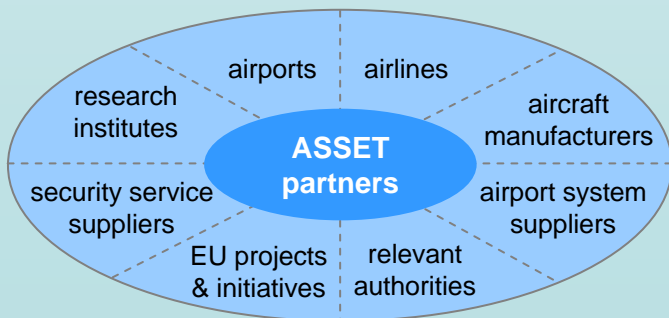
- on time performance
- inefficiency due to
 - variance in off-block-times
 - dependency on duration of airport ground processes

Aim of ASSET



Achievement:

- a ranking list specifying promising solutions as basis for future development
- reference models as well as a systematic scheme for future airport assessments

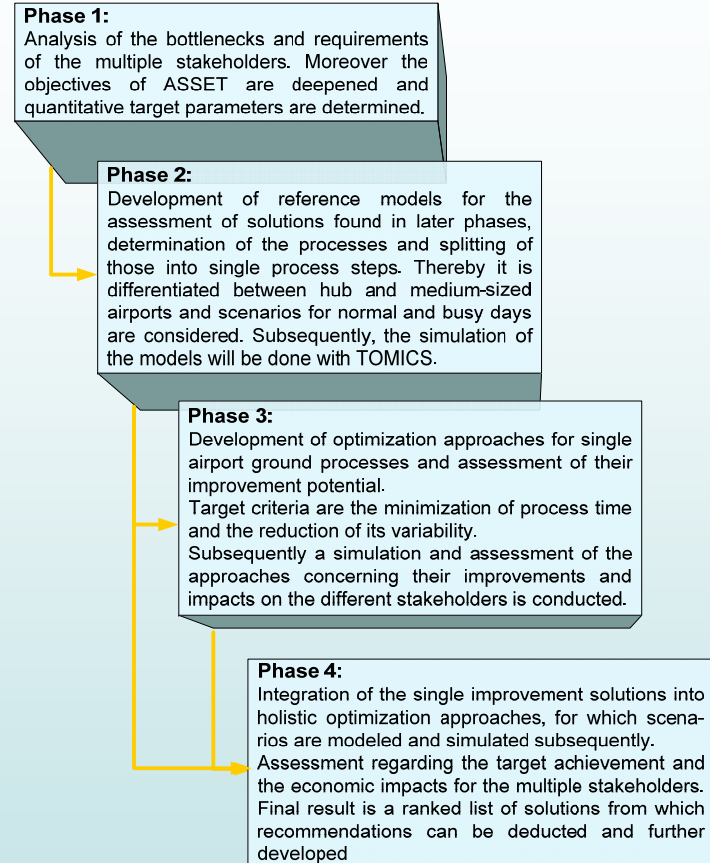


Objectives

Enhancement of airport ground processes' predictability and efficiency, thereby achieving

- increased punctuality → less buffer necessity → lower cost → higher profitability
- increased customer satisfaction due to less waiting time
- more aircraft per time at a given airport gate or remote position are being served
- increased aircraft movement capacity
- higher reliability at the interface of airside and landside processes

Brief Work Plan



process chain

