



Phase 1:
Analysis of the bottlenecks and requirements of the multiple stakeholders. Moreover the objectives of ASSET are deepened and quantitative target parameters determined.

Phase 2:
Development of reference models for the assessment of solution found in later phases, determination of the processes and splitting of those into single process steps. Thereby it is differentiated between hub and medium-sized airports and scenarios for normal and busy days are considered. Subsequently, the simulation of the models will be done with TOMICS.

Phase 3:
Development of optimization approaches for single airport ground processes and assessment of their improvement potential.
Target criteria are the minimization of process lead time and the reduction of its variability.
Subsequently a simulation and assessment of the approaches concerning their improvements and impacts on the different stakeholders is conducted.

Phase 4:
Integration of the single improvement solutions into holistic optimization approaches, for which scenarios are modeled and simulated subsequently.
Assessment regarding the target achievement and the economic impacts for the multiple stakeholders. Final result is a ranked list of solutions from which recommendations can be deduced and further developed

Air Transport and Airport Research

Aeronautic Study on Seamless Transport

ASSET is a project within the Seventh European Framework Programme whose multinational consortium is coordinated by the German Aerospace Centre.

Against the background of insufficient punctuality of the European air transport system which is mainly resulting from the high variance in off-block times, entailing poor predictability and costly time buffers, ASSET aims at the development of integrated solution scenarios for the optimisation of airport ground processes, comprising passenger-, baggage- and aircraft turnaround processes.

Within the analysis and the assessment of the processes and solution approaches the simulation software TOMICS is applied and two generic airport models are developed.

The airport ground processes from the terminal entry up to the boarding and vice versa are analysed, activities and bottlenecks identified and optimisation solutions developed, simulated, integrated into the whole process chain and finally assessed.

