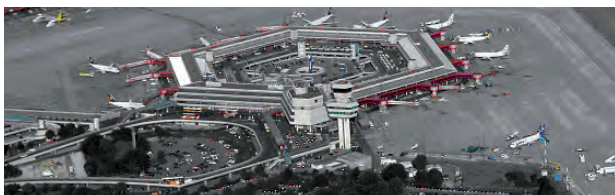


## The AAS - Test Sites:

### Tegel – TXL



- Opening: 1948
- Airport Operator: Berliner Flughäfen GmbH (BFG)
- Ground Handler: Globe Ground Berlin GmbH, Acciona Airport Service Berlin GmbH
- Total area: 4.660.000 sqm
- Apron area: 410.000 sqm
- Aircraft Parking Positions: 44
- Terminals: 5
- Pax (2007): 13.357.741
- Air Cargo (2007): 24.957 t
- Air Movements (2007): 151.396
- Capacity (PAX per year): 12 Mio.
- Employees: 6.849

### Porto – OPO



- Opening: 1945
- Airport Operator: ANA Aeroportos de Portugal SA
- Ground Handler: Portway and Groundforce Portugal
- Total area: 3.380.000 sqm
- Apron area: 298.000 sqm
- Aircraft Parking Positions: 35
- Terminals: 3
- Pax (2007): 3.988.881
- Air Cargo (2007): 37.731 t
- Air Movements (2007): 53.317
- Capacity (PAX per year): 6 Mio.
- Employees: 2.815

## Project Partners:

| Partner Logos   | Partner Name  | Internet   |
|---|---|--|
|    | TSB Innovationsagentur Berlin GmbH / Forschungs- und Anwendungsverbund Verkehrssystemtechnik Berlin | <a href="http://www.fav.de">www.fav.de</a>   |
|    | GlobeGround Berlin GmbH   | <a href="http://www.globeground-berlin.com">www.globeground-berlin.com</a>         |
|    | INFORM – Institute for Operations Research and Management GmbH                                      | <a href="http://www.inform-ac.com">www.inform-ac.com</a>                           |
|    | Euro Telematik AG   | <a href="http://www.euro-telematik.de">www.euro-telematik.de</a>                   |
|    | ANA Aeroportos de Portugal, SA  | <a href="http://www.ana.pt">www.ana.pt</a>   |
|    | HiTec – Vereinigung High Tech Marketing   | <a href="http://www.hitec.at">www.hitec.at</a>                                     |
|    | University of Salzburg  | <a href="http://www.uni-salzburg.at">www.uni-salzburg.at</a>                       |
|    | Siemens AG  | <a href="http://www.siemens.com">www.siemens.com</a>                               |
|    | INECO – Ingeniería y Economía del Transporte, S.A.  | <a href="http://www.ineco.es">www.ineco.es</a>                                     |
|    | Consorzio Ferrara Ricerche  | <a href="http://www.conorzioferrararicerche.it">www.conorzioferrararicerche.it</a> |
|   | Lappeenranta University of Technology   | <a href="http://www.lut.fi">www.lut.fi</a>   |
|  | INESC Inovação  | <a href="http://www.inov.pt">www.inov.pt</a>                                       |

## Contact:

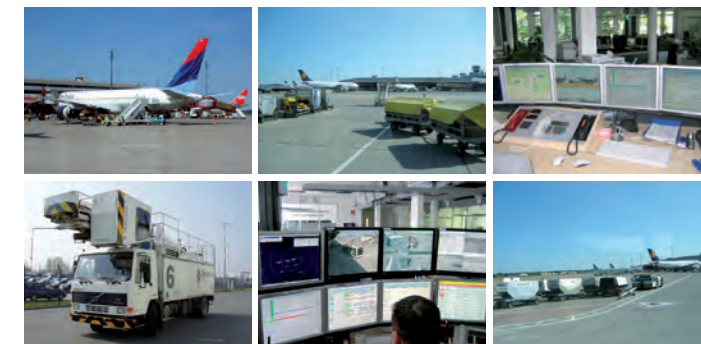
TSB Innovation Agency Berlin GmbH  
 FAV – Transport Technology Systems Network Berlin  
 Fasanenstraße 85 • 10623 Berlin • Germany

Mr. Martin Schipper: +49 (0) 30-46302-577, [mschipper@fav.de](mailto:mschipper@fav.de)  
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[www.aas-project.eu](http://www.aas-project.eu)  
[www.fav.de](http://www.fav.de)



## Integrated Airport Apron Safety Fleet Management



AAS is co-funded by  
 the European Commission,  
 DG Energy and Transport

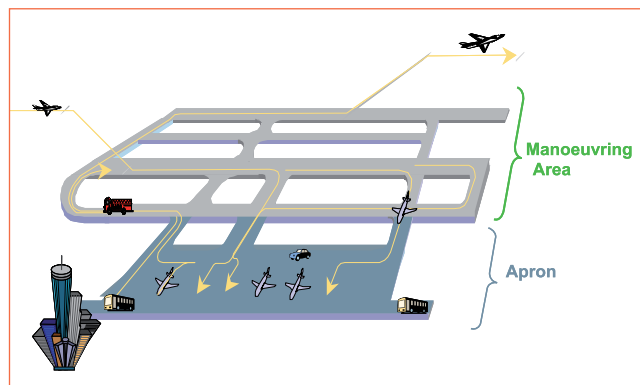


## Integrated Airport Apron Safety Fleet Management

One of the main challenges in the apron area is that due to many different companies operating on an airport apron, each company brings in the vehicles and equipment it requires to sustain operations. This causes high levels of congestion in ramp areas, which increases the accident rate and the chances of vehicles and equipment being misused.

By gaining telematics data on the running times of the various vehicle categories, detailed real-time statistics can be created. Actual reports allow a good long term budget planning, by showing how many vehicles or pieces of equipment are actually needed to support daily operations. By monitoring the vehicles unnecessary running times can be avoided, environmental impact can be reduced. At the same time this type of information can lead to considerable savings in investment and daily operational costs, and a reduction in vehicles and equipment required. Therefore, the project AAS will develop, implement and investigate the implications of a cost and safety beneficial high-tech system for comprehensive monitoring and controlling of all GSE vehicles (GSE = Ground Service/Support Equipment) movements on the apron area. Main aims are:

- identify the user needs by an expert group
- maximise the utilization of GSE vehicles and advance the fleet management concept
- automate the transport of information from GSE vehicles into RMS (RMS = Resource Management System)
- reduce accidents and repair costs for GSE and airline companies
- pass on integrated knowledge to apron operating companies



## Expected Outcomes

- Maximising the utilization of Ground Support Equipment like luggage trolleys, passenger busses, service / maintenance / support vehicles at airports
- Reducing costs by efficient passenger and luggage flow in real time
- Enhancing safety, reducing the number of accidents and GSE/aircraft damage repair costs
- Return of Investment in less than five years

## Relevance to EU Policy

- Contribution to the EC policy targets: SAVE 20 % of operational costs while INCREASING apron safety, REDUCE turn-around time at airports significantly
- Contribution to the Single European Sky ATM Research (SESAR): Develop new equipments, systems or standards, through defined and coherent R&D activities
- Contribution to the Clean Sky Initiative: Reduction of the environmental impact at airports through optimised fleet management

## Objectives

- Implementation of a GPS/EGNOS-based location system
- The system will be embedded into a mapping and positioning system, including geo-fencing
- AAS will be a system with open interfaces towards all existing airport operational systems
- The communication system will be based on different technologies: Wi-Fi, GPRS
- AAS R&D focus on the integration of on-board units for GSE-vehicles and the integration to Resource Management Systems



## Brief Work Plan

- Identification of airport user requirements by the AAS Airport User Platform
- Development of an On-Board-Unit for equipment location and access control
- Integration of the AAS hard- and software to optimise the equipment selection process and support safety
- Demonstration of the AAS system at the airports of Porto (OPO) and Berlin-Tegel (TXL) based on GPS/EGNOS navigation and GPRS/Wi-Fi communication technologies with 20 vehicles per demonstration site

