SESAR Revolution and new users of the airspace
Deutsches Zentrum für Luft- und Raumfahrt e. V., German Aerospace Center

SESAR Requirements
Single European Sky ATM Research Programme SESAR
- Each flight operates a business trajectory from planning to execution (Trajectory Base Operation TBO)
  → Improved predictability of air traffic
- System Wide Information Management SWIM
  - "Intranet for ATM"
  - Pilots, Airport Operations Centers, Airline Operations Centers, Air Navigation Service Providers, Meteorology Service Providers, Military Operations Centers
  - Includes Controller-Pilot Data Link Communication (CPDLC)
  - SESAR SWIM concept requests all the future air traffic participants acting as communicating sub-systems!

SWIM SpacecraftReentryHazardAreaServer
Safe global integration of space traffic and hypersonic flights by taking into account its changing debris (hazard) areas along suborbital routes!

First Analysis Results – SpaceLiner Use Case
Simulation results

Entry count for three traffic scenarios during one rolling hour (historic traffic data based on Eurocontrol DDR2 database)

Trajectories in and around the HA