



# E4U Workshop #3

Single European Sky

Presenter: Dirk-Roger Schmitt (DLR)





- SESAR considered as input to the E4U study.
- View from SJU and Eurocontrol on the challenges
- Meeting with
  - Denis Koehl, SJU Senior Advisor Military Affairs
  - Edgar Reuber, ECTL SES Military Expert
  - Dominique Colin, ECTL Civil-Military Standardisation
    Senior Expert
- Summarised view on the following pages:





- Role of Stakeholders:
  - ECTL and SJU focus on science and content
  - SJU research independent of existing regulatory framework (purely R&D)
  - Close the cycle:
    - Activities within ECTL and SJU will be synergetic with envisaged EDA's activities on deployment of industrialisation and military application.





# UAS-Activities in the past

- ECTL initiated work on integration of UAS, focus on integration through research. OAT spec, Global Hawk).
- SJU: First phase: constant observation and discussion of running third party activities and needs. Increased demand: own activities started.

#### UAS-Activities in the future

- ECTL: Support to stakeholders, drive towards harmonisation, civil/mil, support to UAS regulation.
- SJU: LOT 6 for Associated Partnership. First step: Development of Conops for UAS insertion





- Detect & Avoid (D&A)
  - Still regulatory request also under IFR
  - SESAR research will implement envisages new roles of pilots, controllers and automated systems for 4D-Trajectory
  - SWIM-4D-Trajectory has not assessed D&A principles.
  - D&A function is important (TCAS, ACAS + further layers, not necessary visual imagery)
  - Concept must be proven safe
  - Final system is the target regardless existing regulation, prividing benefits to manned aviation. Potential evolution of regulation to match the R&D solutions is assessed.





- SWIM: Major Enabler
  - situation awareness, safety, information security and efficiency...
- Challenges
  - UAS integration step-by-step approach
  - Coordinated track: ECTL, SJU, EDA
  - Harmonised European regulation following ICAO