E4U Workshop #1
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TASK 2
Single European Sky

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Task 2 – Single European Sky (DLR)

• T2.1 – Integration into SES and SWIM (NLR)

• T2.2 – Liaison with the SES ATM Research program (DLR)
• SES umbrella:
  Projects ground in common with UAS. How UAS compare to manned vehicles?

• SWIM impact:
  Influence on UAS operation on: navigation, flight planning, communication. Maybe impact on the legislative issues.
T2.1 relevant projects

• SWIM-SUIT – SWIM prototype to assess technological solutions
• SES: CIV-MIL cooperation
• Functional Airspace Blocks (e.g. FABEC)
• INOUI: Innovative Operational UAS Integration – UAS can benefit from SWIM
• SOFIA: Aircraft flying in UAS mode after critical event on board
• NEXT GEN (USA)
T2.1 relevant results (so far)

- Within SES but outside SESAR we did not find any relevant results
- Mixed operations specifically relevant for UAS integration
T2.1 Current challenges

• Liability and insurance
• Incorporating UAS’s into current operation
• Decide to what extent UAS’s need to be treated differently from manned vehicles (highly dependent on type of UAS)
• Decide on additional requirements for airspace structure (do UAS (missions) have special airspace needs?)
• How can UAS’s benefit from SWIM?
T2.2 Liaison with the SES ATM Research program (DLR)

• SESAR defines the airspace of the future, techniques and procedures.

• Introduction of business trajectories and SWIM

• UAS to comply with the concept
T2.2 relevant projects

- UAS integration happens in the timeframe of SESAR
- SJU Call for Associated Membership
  - LOT 6: UAV/UAS Integration in SESAR
  - UAS insertion into “normal traffic”
  - Integration in SESAR conops
  - Interfaces with SWIM
T2.2 relevant results (so far)

- Results to be expected within the timeframe of SESAR
- INOUI ideas might be used
- Results from trajectory oriented projects can be considered (IFATS, 4DCo-GC)
T2.2 Current challenges

- Reliable Sense/See & Avoid
- Separation Assurance
- Comply with Business Trajectory
- Mixed operations
- ATC communications