Second ATM R&D projects
Co-ordination and networking meeting

Alignment with the SESAR programme

iFly

Safety, Complexity and Responsibility based design and validation of highly automated Air Traffic Management

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Directorate-General for Energy and Transport

Context

- Innovative project for EC DG-TREN (6th Framework)
  - iFly project duration: May 2007- August 2010
  - Budget: 5.2 MEuro / Total effort: ~ 45 person-years
  - 18 Partners: 7 from ATM/aviation and 11 universities
- Motivation:
  - Airborne self separation has been "invented" as a potential solution for high traffic demand airspace
  - During recent years ATM community research trend is to direct airborne self separation research to situations of less demanding airspace
- Key research questions:
  - At which en route traffic demands is airborne self separation sufficiently safe?
  - Which complementary support services from ground ATM are needed in order to accommodate higher traffic demands?

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Explain how the Project is supporting the SESAR D3 Target Concept

- iFly minimal aim is twofold:
  - To support SESAR ATM Capability 4 ConOps, by assessing of airborne self separation in busy en-route area
  - To support SESAR ATM Capability 3 ConOps, by assessing of airborne self separation outside the busy en-route area
- iFly maximal effect is that the outcomes are too good for busy en route airspace to leave SESAR ATM Capability 4 ConOps wait until 2025
- iFly results include requirements on the supporting Architecture and CNS technology

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Most important results and actual "shape" of the project deliverables supporting the SESAR D3 results

- Production of two advanced design references:
  1. Self Separation with maximal capacity accommodated
  2. Best Ground support to this Self Separation baseline
- Safety/capacity, human factors and cost-benefit assessment of the self separation concept
- Innovative features:
  - Predict traffic complexity, multi-agent situational awareness, guaranteed conflict resolution
- Development and validation in line with E-OCVM

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First orientations for better alignment with SESAR D3

- iFly will connect with SESAR's Business Trajectory concept
- If possible, iFly will conduct a liability study regarding ASAS use (SESAR D3 safety report)
- If possible, iFly would like to invite an interested SESAR D3 expert to accept an iFly internal advisor role
- Coordination with RESET; Informal contacts with ERASMUS, SuperHighway, ASSTAR, and CAATS2

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Thank you

For further information see:
http://iFly.nlr.nl

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