Tuesday 25th June, 2013

DLR Facilities, Braunschweig, Germany

09:30 – 10:00	Registration / Welcome
Project description and concept key elements	
10:00 – 10:10	**Project general presentation** - Onera • Context • Partners • Objectives
10:10 – 10:25	**4D contract concept overview** - Onera • General concept • Bubbles • Strategies
10:25 – 10:45	**"Story of a 4D contract"** - Onera
10:45 – 11:00	**General presentation of the demonstration** - Onera/DLR • Simulation architecture • Modules • Scenarios • Hypotheses
11:00 – 11:05	**Audience questions and feedback**
11:05 – 11:15	*Coffee break*

Demonstration	
11:15 – 12:30	**Traffic sample used for the simulations** - NLR • Generation • Hypotheses GLOBAL TRAFFIC SIMULATION **Ground strategic planning** • Conflict-free trajectories generation - ENAC/TsAGI, DLR • 4D contracts elaboration, based on the trajectories - Onera **Simulation infrastructure description** - DLR/Onera **Onboard contract compliance monitoring** – University of Patras **Onboard replanning** - Technion ***SIMULATION RUN*** *– test case 1: nominal traffic situation* **Traffic increase** ***SIMULATION RUN*** *– test case 2: saturated traffic situation*
12:30 – 12:40	**Audience questions and feedback**
12:40 – 14:00	*Lunch*
14:00 – 15:30	**Degraded situation: airport closure** ***SIMULATION RUN*** *– test case 3: airport closure* **Emergency situation management** - NLR • Onboard self-generation of safe 4D contract ***SIMULATION RUN*** *– test case 4: rapid descent due to depressurization* **Ground movement planning** - Monitor Soft ***SIMULATION RUN:*** *ground movement* INDIVIDUAL AIRCRAFT SIMULATION **Aircraft guidance and control: 4D contract automatic execution** - CIRA ***SIMULATION RUN:*** *4D contract execution at the aircraft level* **Trajectory greening** – IAI/Alenia ***SIMULATION RUN:*** *trajectory optimization within a 4D contract*
15:30 – 15:35	**Audience questions and feedback**

15:35 – 15:45	*Coffee break*
15:45 – 16:00	**Data link architecture and capabilities** - Thales ***SIMULATION RUN:*** *data link*
Conclusion and discussion	
16:00 – 16:20	**Project achievements, first findings and analysis** - Onera • Conflict free-trajectories generation strategies • Impact of the bubble size on the system performance • Guidance and control performance vs 4D contracts • Link with SESAR
16:20 – 17:00	**Audience feedback and open discussion**
End of demonstration day	