



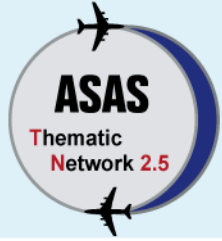
ASAS TN2.5 workshop

Roma, 12-13 November 2008

SESAR and ASAS Opportunity

Bob Graham

EUROCONTROL Experimental Centre



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Presentation Overview

SESAR

Concept Focus

Opportunity for ASAS

Challenges to overcome



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SESAR

The objectives of SESAR are to eliminate the fragmented approach to ATM, transform the European ATM system and synchronise the plans and actions of the different partners and federate resources.

SESAR is structured in three major phases:

- Definition Phase (2005-2008 – complete with delivery of the ATM Master Plan)
- Completed Development Phase (2008-2013 – under management of the SESAR JU)
- Started Deployment Phase (2014-2020 – implement the results of the Development Phase)



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SESAR Definition - Delivered ..





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SESAR Development – Joint Undertaking

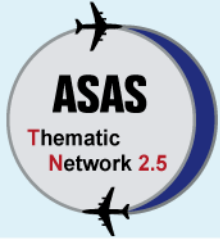
To manage the development phase a legal entity was created, under European Community law, on 27th of February 2007: The SESAR Joint Undertaking.

The aim of the Joint Undertaking is to ensure the modernisation of the European air traffic management system by federating research & development efforts in the Community.

As such, it will organise and coordinate the development activities of the SESAR project, in accordance with the ATM Master Plan.

WWW.SESARJU.EU

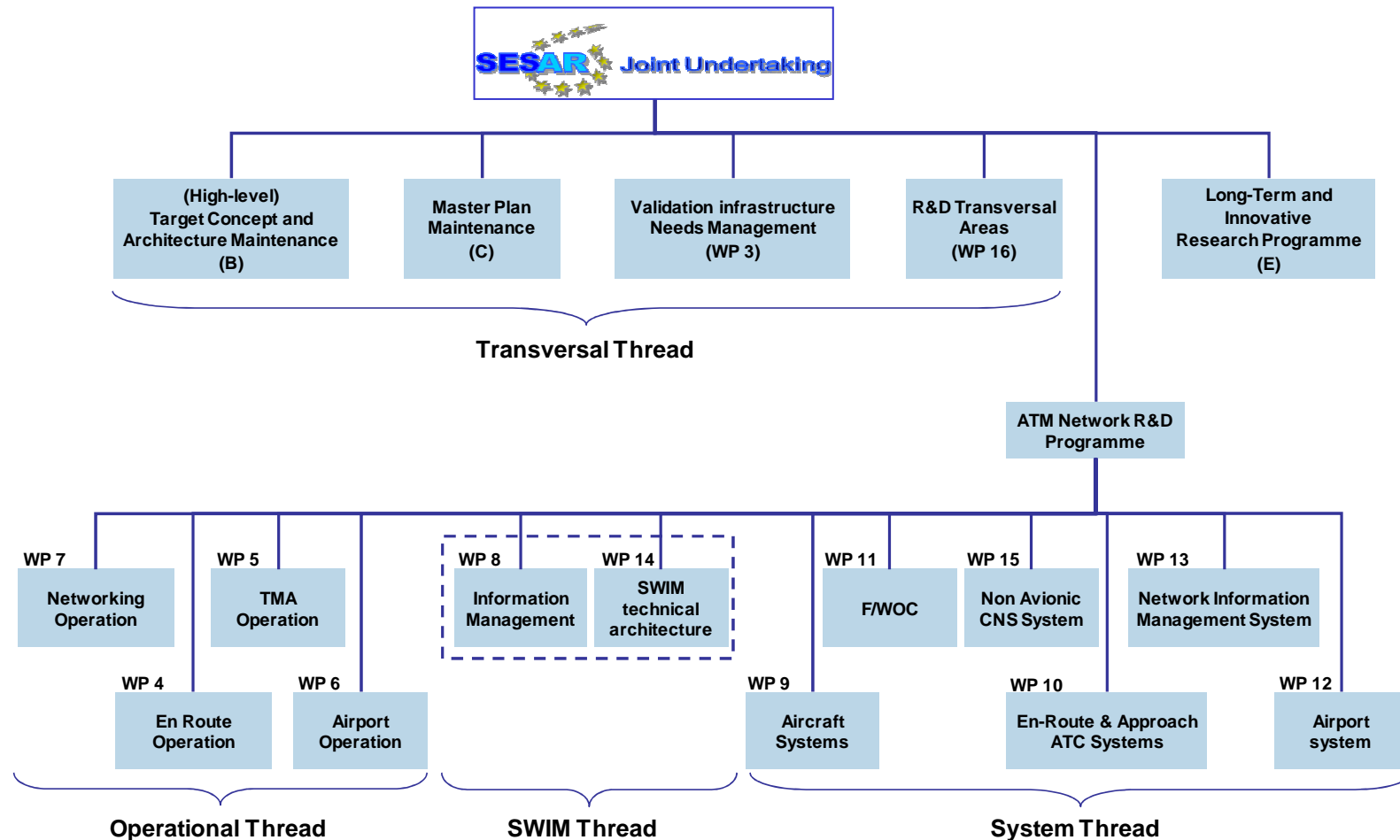




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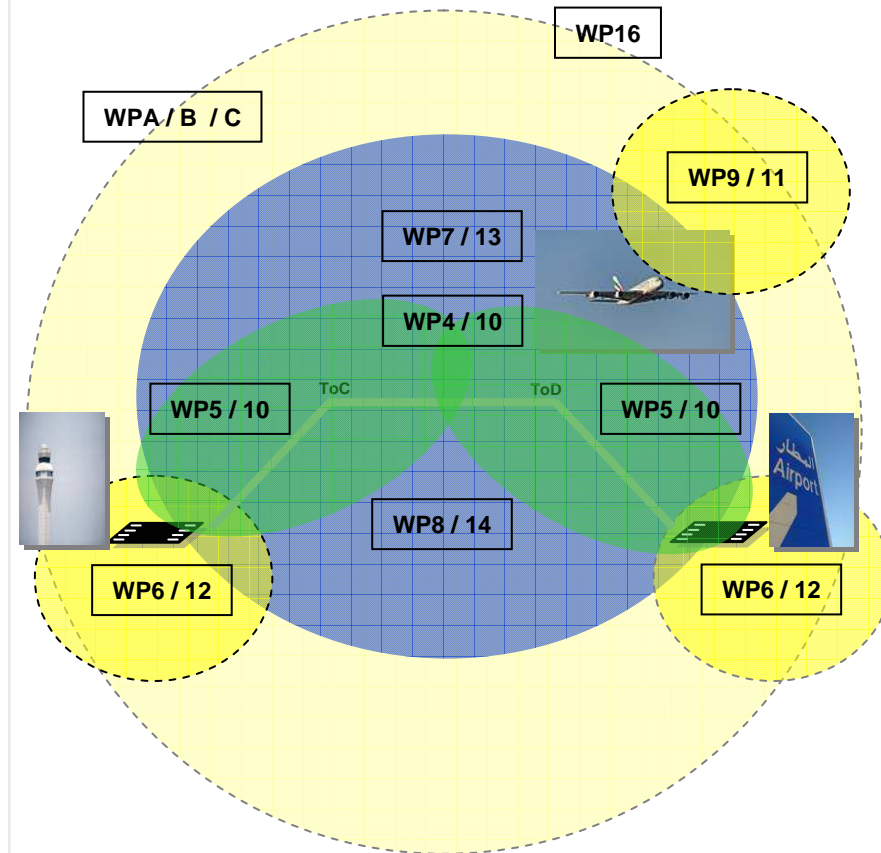
SESAR JU: Work Programme



Structuring the concept

An integrated and concept driven approach

An example ..





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Integrated High Performance ATM

- Three key enablers: Time, Arrival Runway based and globally agreed 4D Trajectory definition. And
 - A clear focus on safety, efficiency, predictability and reduced emissions;
 - An agreed common “Time” reference to match the need for precise predictability at the arrival runway with the Airport airside turn-around integrated into ATM;
 - Globally defined and agreed 4D trajectory exchange format;
 - Common shared data and information network providing for collaboration between partners;
 - Strategically and tactically planned business from gate to gate based on collaboratively agreed business/mission trajectory;
 - Establishment of ATM as an enterprise system where airspace users participates as performance partners and the aircraft is fully integrated as a component of the system.

ASAS Opportunity



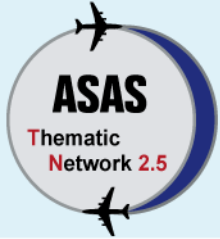
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Structuring the concept

An incremental approach

- Initial focus on early benefit
- Probably a step approach to reach the 2020 concept target
- Performance driven but managed, taking account of the current economic climate



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ASAS Opportunity: In the concept

Service Level 0 & 1 (to 2012)

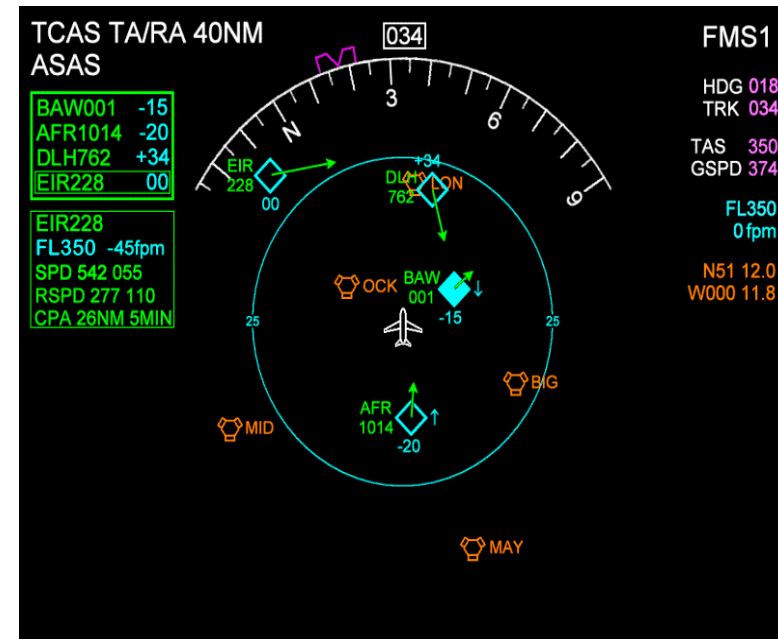
- ATSAW in flight and on the surface
- ATSA: ITP and ATSA: VSA
- Manual ASAS S&M

Service Level 2 & 3

- ASPA: S&M (2015)
- ASEP: ITP (2020)

Service Level 4 & 5 (2020+)

- ASEP: C&P
- ASEP: Self-Sep





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ASAS Opportunity: In the Work Programme

We can anticipate continuation or new projects on the following:

ATSA: ITP Trials

ATSA: ITP & ASEP – ITP (Oceanic in trail procedures)

ASEP: Cooperative Separation

ASEP: Self Separation in Mixed Mode

ASEP: Separation Task in En Route Trajectory based environment

ASEP: Compatibility between 4D Contract and ASAS Self Separation

ASPA: S&M

and

ASAS Airport related separation minima

(Setting targets for possible reductions in selected separations based upon enablers and technological improvements such as RNP, RSP, ASAS, etc.)



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ASAS Opportunity: Initial Weighting on SESAR early benefits

EC Council Communication
October 2008



The SESAR JU is encouraged to **“to identify, at an early stage, existing and validated technical solutions that can serve as a basis for early deployment to secure early benefits.”**



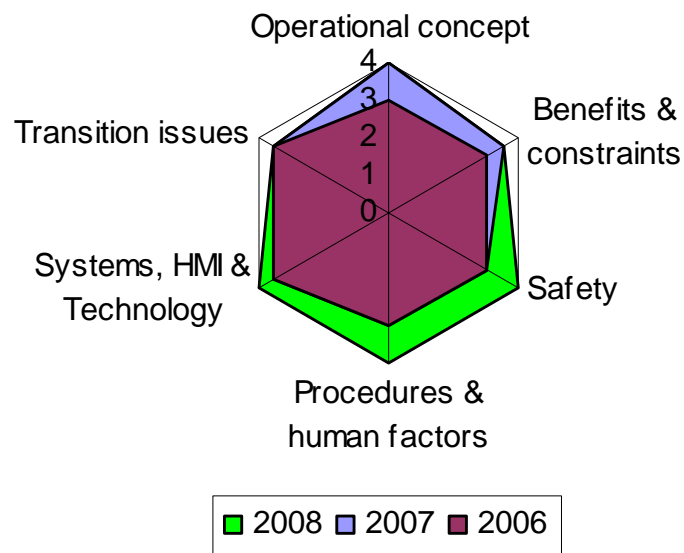
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ASAS Opportunity: Maturity & Process already applied

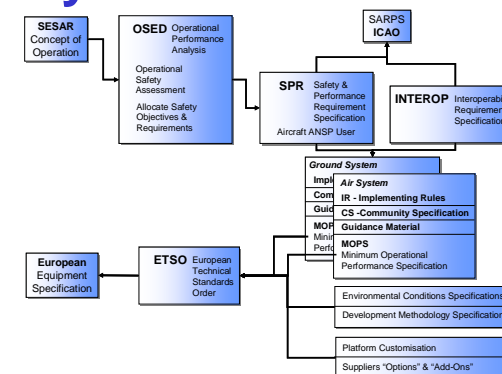
Maturity

e.g. ATC surveillance in non-radar areas



Maturity

Requirements and Standards Processes are applied



ASAS TN –ongoing maturity assessment

Highest: ADS-B-NRA (operational Australia)

Lowest: ASEP-VC&P

Fastest: ASPA-S&M (UPS M&S operational approval)

This symposium will report what has to be done



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Challenges to Overcome

- Compatibility & Co-existence of concepts e.g. Trajectory Based Operations
- Cost & Benefit – the economic climate
- Global interoperability
- The killer application to break the ice? S&M?



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I wonder, in our ASAS TN
meeting in Rome, 2013 ...

what will we be saying?

Thank You