



**The Single European Sky  
ATM Research (SESAR) initiative**

*Luc TYTGAT  
European Commission, DG TREN*



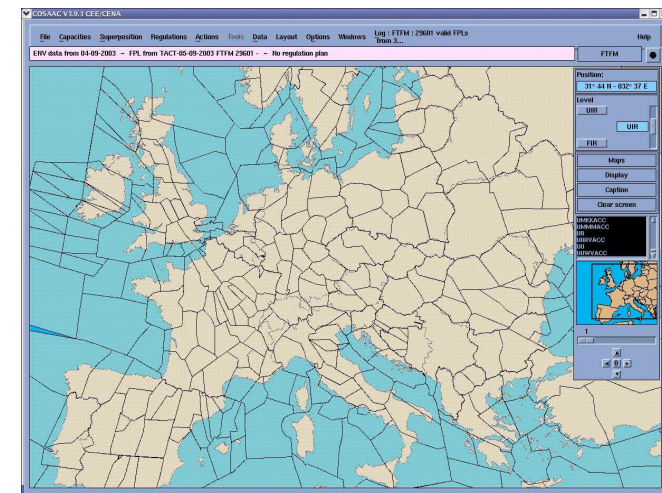
# Europe facing development challenges

**Air Traffic Control is operated like 20 years ago**



**Basic technologies are obsolete**

**European airspace cannot be further divided**





**Research has failed to deliver the necessary  
modernisation efforts**

**Technology is not the only challenge:  
decision making is also a key issue**

***In Europe, the issue is even more complex  
due to fragmentation***



# An in-depth ATM reform is needed

## Rationalise ATM institutional set up:

- *Single European Sky*
- *High Level Group*

## Reorganise ATM R&D:

- *SESAR*
- *SESAR Joint Undertaking*



# Single European Sky



## ATM Institutional reform

**The Single Sky Legislation reforms the organisation of air navigation service provision**

- **Separation of regulatory activities from service provision**  
(National Supervisory Authorities, Air navigation service providers)
- **Organisation of cross-border functional airspace blocks**
- **Common standards for service provision** (certification, Charging schemes)
- **Interoperability**
- **Establishes bodies which manage implementation** (SSC, ICB), involving all stakeholders (staff, military,...)
- **Implementing powers to the Commission**



# High Level Group

High Level Group (set up in Nov 2006) is reflecting on the best regulatory framework to support a European performance based ATM for 2020 by:

- the simplification of the current regulatory framework, avoiding duplication of EU and non EU regulations
- the development of EASA into the ultimate EU safety authority (including Airports and ATM)
- the evolution of Eurocontrol in this context (transparency, separation of operative and legislative tasks)

**Report will be presented to VP Barrot on 03 July and will be a key element in the review of SES**



# SESAR



## ATM Technological reform

**The technological & industrial complement  
to the Single Sky Legislation**

**Technological advances developed by SESAR will be  
implemented through EU law**



# **SESAR**

## **One programme for Europe**

shared by all the players in the air transport sector

**Combines resources and efforts – avoiding fragmentation**

**Addresses environmental issues**

## **One vision to be shared with the world**

a solution to European issues

with a global perspective

**Open to international partnership**





# Objectives

- **A consistent, focussed and user-driven project.**
  
- **Ambitious but realistic objectives for the European ATM infrastructure:**
  - ☑ **Triple capacity**
  - ☑ **Reduce by 50% ATM costs**
  - ☑ **Increase safety by a factor of 10**
  - ☑ **10% reduction of environmental impact per flight**
  
- **A European programme with worldwide reach**



# 3 phases

2004

2008

2013-16

2020 >

**Definition**

**Development**

**Deployment**

**Define** the different technological steps, programme priorities and operational implementation plans.

**Develop** new equipments, systems or standards, through defined and coherent R&D activities;

**Deploy the new system** through a large scale production and implementation of the new ATM infrastructure.



# SESAR is currently in the

## Definition phase

Work is performed by a consortium of over 30 companies and Eurocontrol

- Consortium is led by Aircraft Operators
- Project directorate headed by Airbus
- Assembles wide stakeholders' expertise
- With international participation



A 60 M€ effort  
Co-funded by Eurocontrol and EU



# European ATM Master plan

The ATM Master Plan will provide the **schedule** and **work programme** for the development & implementation of new technologies, functions or organisations needed in all regions of Europe.

- It is defined by the principle actors of the air transport sector
- It shall be endorsed by the EU Council

It will be the **European ATM modernisation plan**



## Development phase

This phase will develop and validate equipments, systems & standards, which will ensure a convergence towards a fully interoperable ATM system

This phase will be managed by the

**SESAR Joint Undertaking**



# SESAR Joint Undertaking

**Single management entity**



**Consistency and cost effectiveness**

**Performance-oriented management**

**Aircraft operators participation in decision-making**

**No ATM R&D will be funded outside of  
SESAR**



# The SESAR Joint Undertaking

- A body established by EU Council (Feb 27 2007), with extensive executive powers
- In particular, the JU will concentrate all ATM R&D activities and budgets
- EC and Eurocontrol are founding members, and will have their R&D activities performed through the JU
- The JU will be the EU counterpart of US JPDO+ research agencies (FAA and NASA)



## International cooperation in SESAR

- ▶ JU Membership is open to public & private entities from Non EU Countries which have concluded **at least one agreement** with the European Community in the field of air transport
- ▶ EC and FAA signed a **Memorandum of Understanding** organising coordination of SESAR and NEXTGEN
- ▶ **Standardisation** through ad hoc bodies (CEN/CENELEC/ETSI, EUROCAE, ...)
- ▶ **EASA** will become increasingly involved
- ▶ **Coordination** at ICAO level





# Conclusions

- The EU landscape in ATM and ATM R&D is changing dramatically
- For cooperation with the US, and also within EU, everything is facilitated:
  - One single entry point
  - One source of information/calls for tenders-proposals
  - One single face for coordination



# Contacts in the European Commission

**European Commission**

**Directorate-General for Energy & Transport**

**Directorate F - Air Transport**

**Unit F2 – Single Sky & Modernisation of Air Traffic Control**

Head of Unit:	<b>Luc TYTGAT</b>	+32-2-296 84 30	Luc.Tytgat@ec.europa.eu
	<b>Patrick KY</b>	+32-2-292 08 75	Patrick.Ky@ec.europa.eu
	<b>Marco DE SCISCIO</b>	+32-2-299 37 93	Marco.De-Sciscio@ec.europa.eu

**Air transport portal: [http://ec.europa.eu/transport/air\\_portal/traffic\\_management](http://ec.europa.eu/transport/air_portal/traffic_management)**