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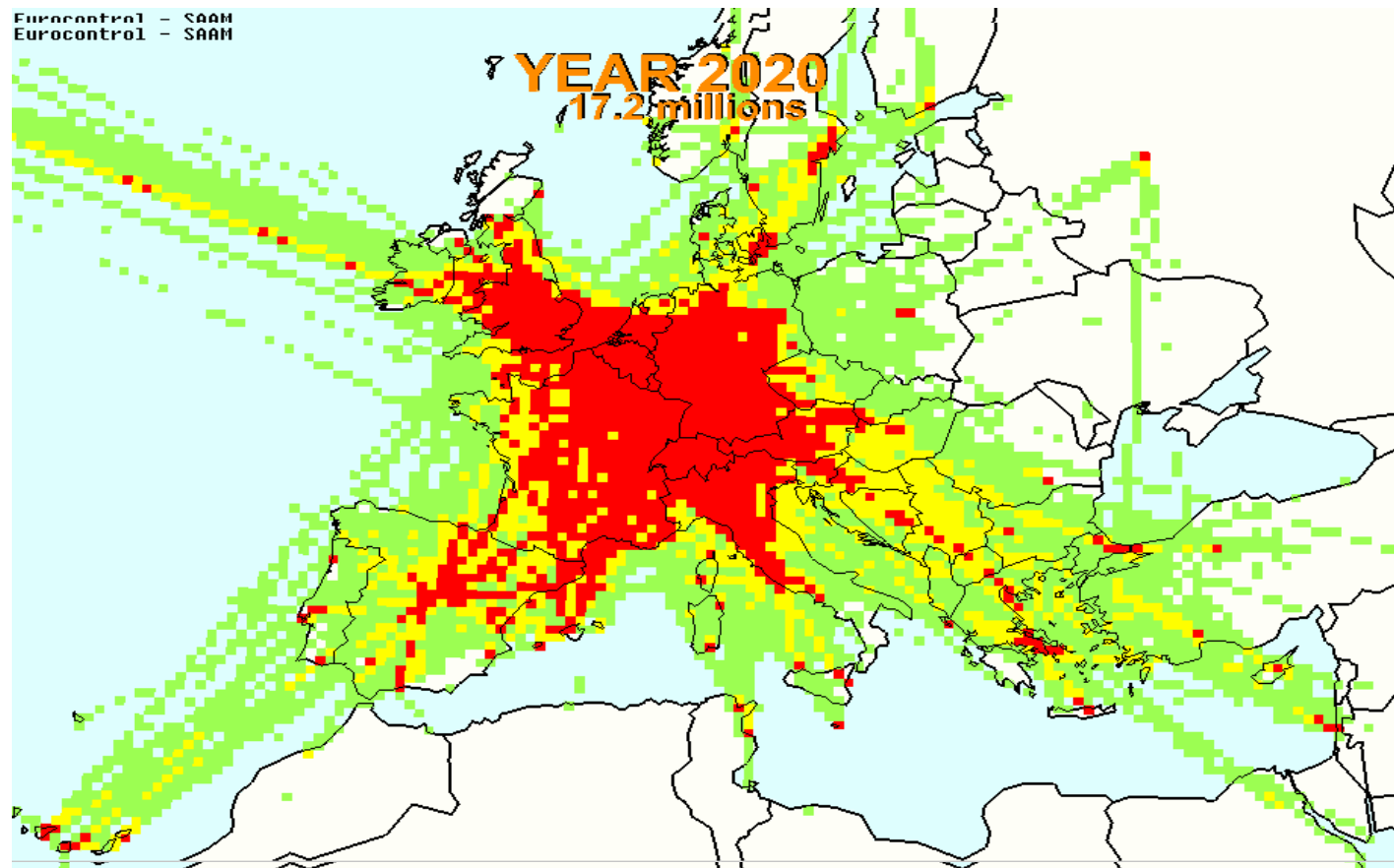
# SESAR

## The EU programme for ATM modernisation



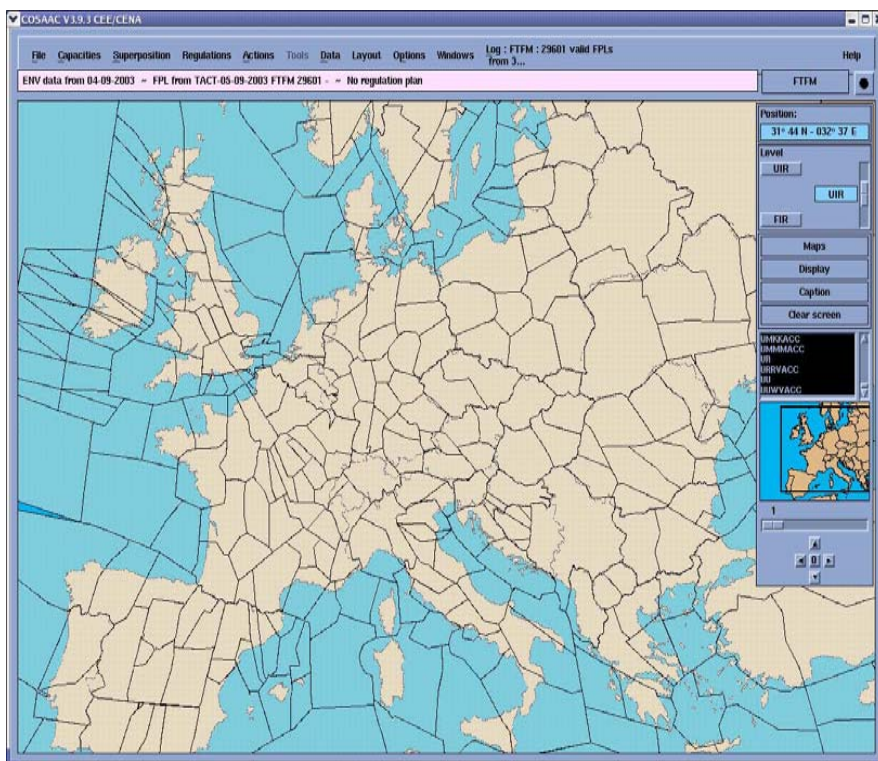
# Europe facing development challenges

Air Traffic in Europe will more than double within the next 20 years





# ATM reform is needed



- Air Traffic Control is operated like 20 years ago
- Airspace cannot be divided further
- Basic technologies are obsolete

**Traffic growth in Europe cannot be sustained without a substantial technological step.**



## Institutional reforms: a Single European Sky

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The Single Sky legislation, adopted in march 2004, reforms in depth the organisation of air navigation services provision:

- Implementation of National Supervisory Authorities and separation regulator/provider
- Organisation of cross-border functional airspace blocks
- Interoperability

And confers on the Community extensive implementing powers, in accordance with the « comitology » principles.



# SESAR: ATM technological reform

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## **The technological/ industrial complement to the Single Sky legislation**

- **One programme for Europe**, shared and committed to by all actors (industry, users and providers, military, staff,...)
- **One vision to be shared with the world**



# Examples of key SESAR technologies

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- **High capacity digital and voice telecommunications between ground and air.**
  - **Secured system-wide telecommunication network**
  - **Automated decision support tools for air traffic controllers**
  - **Aircraft-based air traffic management in low density areas**
  - **Active satellite navigation (GALILEO) for all flight phases (take-off/cruise/landing)**
  - **Wake turbulence detection systems**



# SESAR objectives

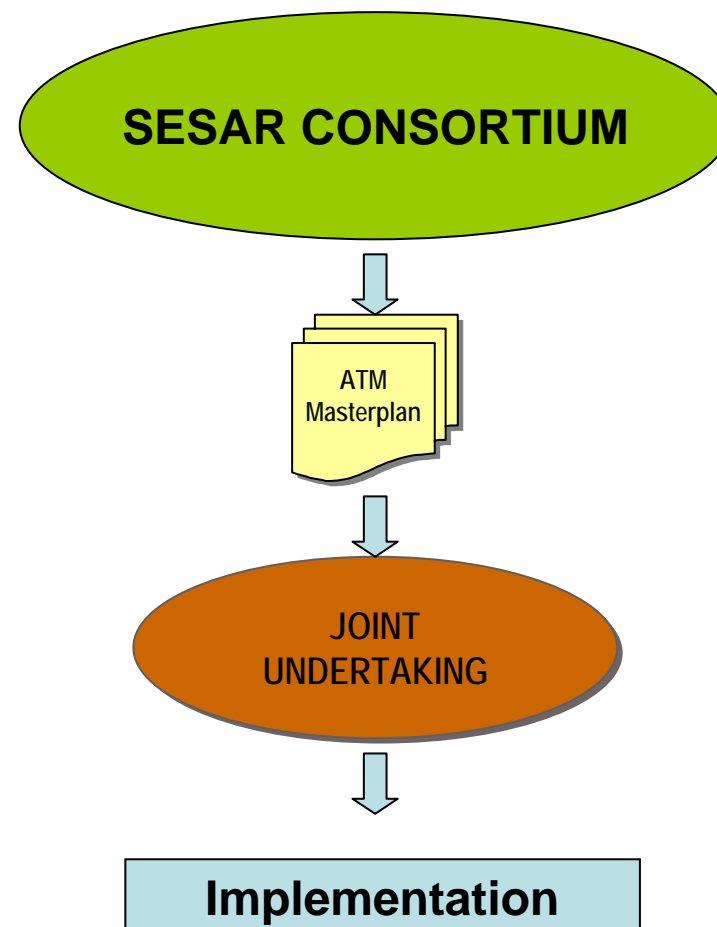
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- A consistent, focussed and users-driven project.
  - Ambitious but realistic objectives for the European ATM infrastructure:
    - Triple capacity
    - Half cost
    - Environmental impact per flight -10%
    - Factor 10 in terms of safety
  - A European project which needs to be synchronised with other international initiatives



# SESAR organisation

## Three phases:

- Definition phase (2005-2007), delivering the European ATM Master Plan.
- Development phase (2007-2013): develop the new systems
- Implementation phase (2014- ), deploy the new technologies





# The SESAR definition phase

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A **consortium** of 32 companies will perform the work:

- Led by Aircraft Operators
- Project directorate headed by Airbus
- Assembling wide stakeholders expertise
- With Eurocontrol contribution

**60 M€ co-funded by EC and Eurocontrol**  
**200 persons full time for 2 years**



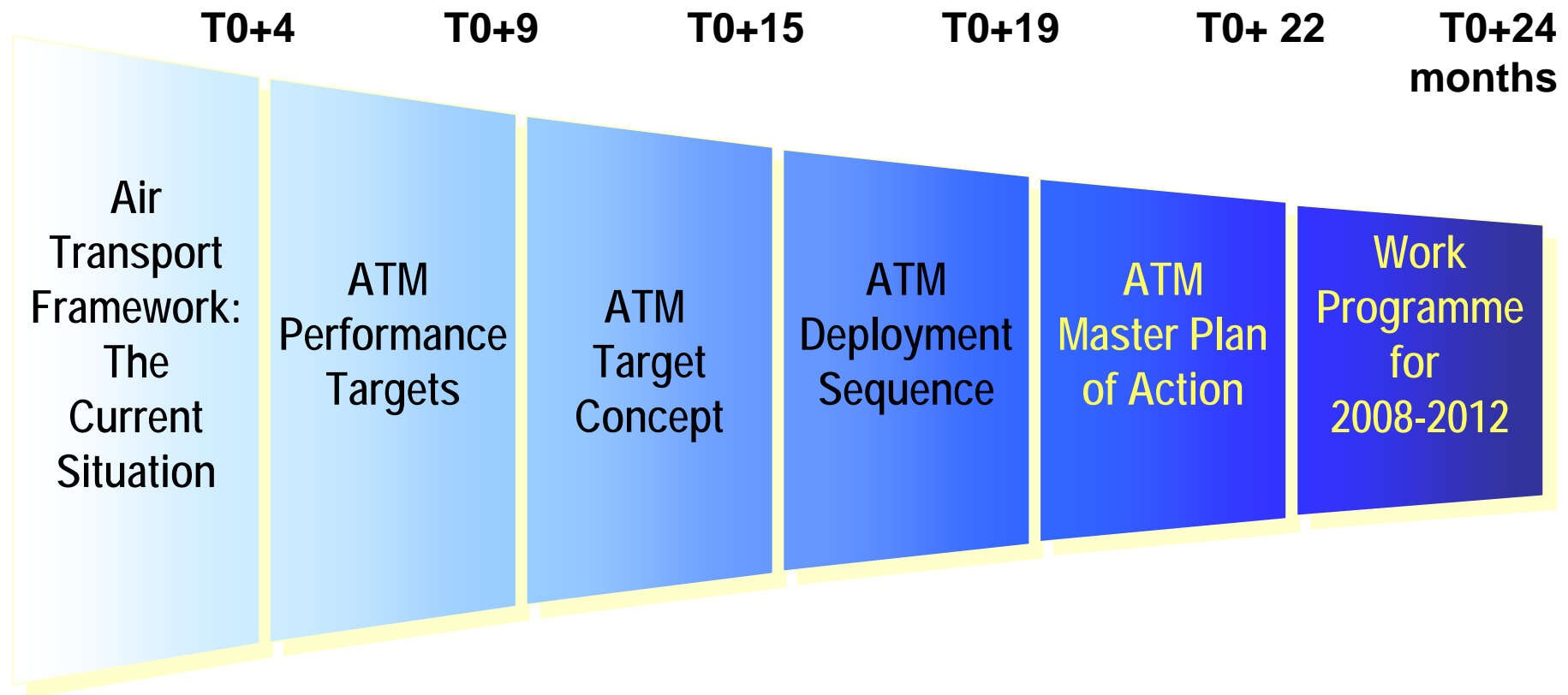
# The SESAR definition phase consortium



- Project Associates: ATM Research Centres, UK CAA, Military, ECA, IFATCA, IFATSEA, staff org., US Industry (Boeing, Honeywell, Rockwell)
- Sub-Contractors



# Definition phase milestones





## SESAR development phase

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- A dedicated structure, the “**SESAR Joint Undertaking**”, will be the ‘owner’ of the programme
- Consistent and cost effective single management entity
- The **European Community** and **Eurocontrol** are founding members
- **Industry** can become member
- **Partner countries** can become members



# Tasks of the SESAR JU

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- Organise and coordinate development activities, following the ATM Master Plan
- Ensure the necessary funding for SESAR
- Monitor the execution of the ATM Master Plan
- Ensure the involvement of all stakeholders
- Organise technical work of R&D, validation and studies



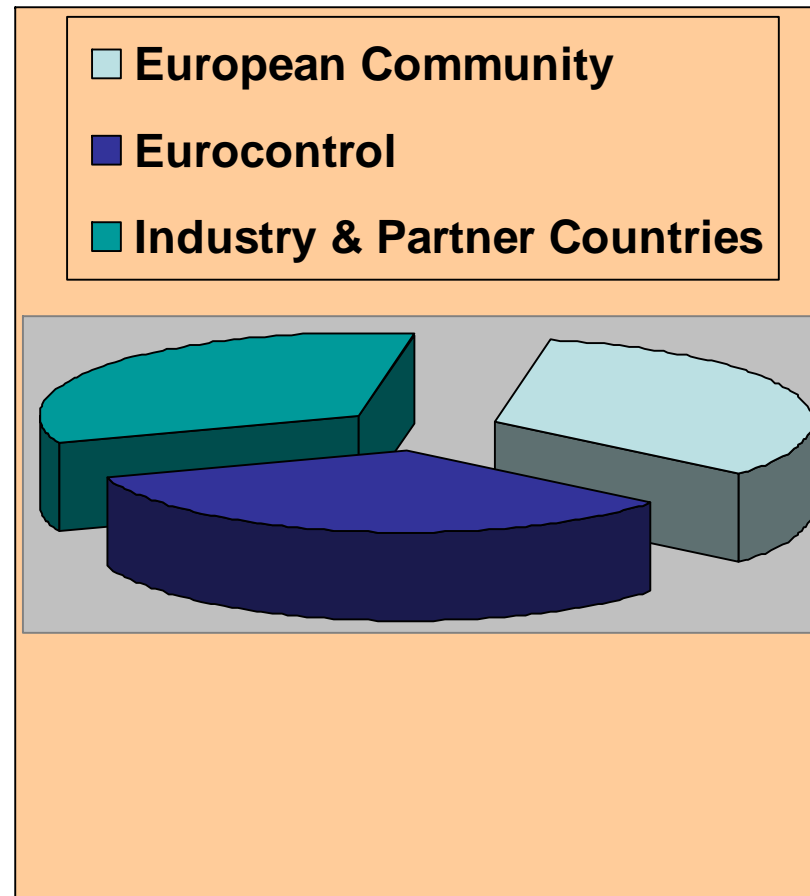
# Output of the Development Phase

- 
- An updated ATM Master Plan
  - Validated pre-industrial components:
    - Standards
    - Common specifications
    - Prototypes
    - Demonstrators
  - Validated R&D concepts



# The SESAR Joint Undertaking

- Is expected to start its operations by **beginning of 2007**
- Will work with a provisional budget of **2.1 Billion €**
- Membership discussions are starting





## The implementation phase

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- The Joint Undertaking will grant access rights to its members
- The implementation phase will be under the industry's direct responsibility
- The Joint Undertaking *in its current form* will cease to exist



# Conclusion

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- SESAR is conceived as an open programme:
  - Public-private partnership
  - International participation
- SESAR will be coordinated with other regional initiatives

**SESAR : a solution to  
European issues, with a global  
perspective**