

**Traffic Forecast for 20 Years
Resulting Challenges for Airports Potential Solutions
AIRNETH, The Hague – 12th of April 2007**

EUROCONTROL

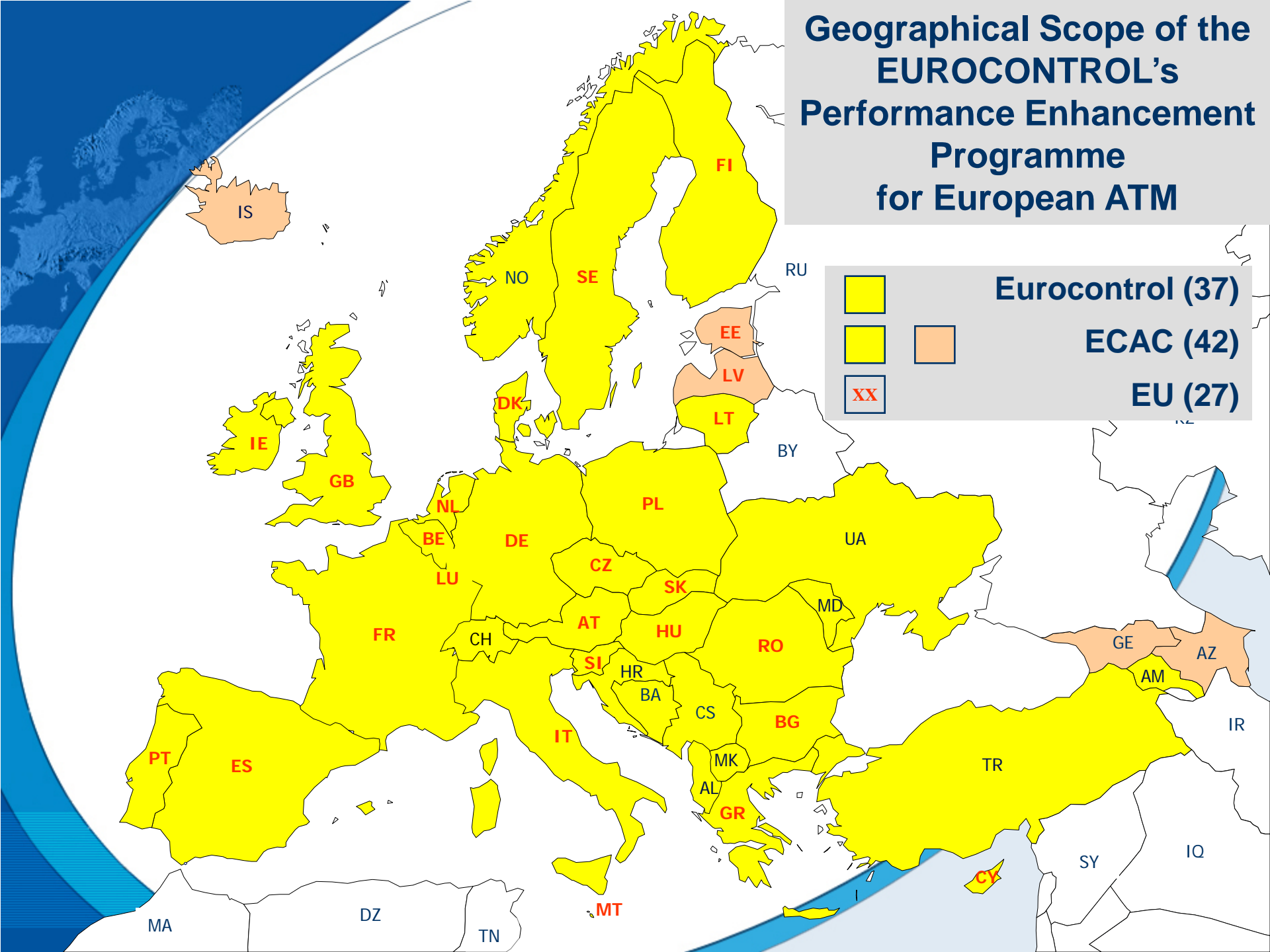
Eric MIART

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(APR)**

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Geographical Scope of the EUROCONTROL's Performance Enhancement Programme for European ATM



EUROCONTROL Agency

Director General

Performance Review Unit
Safety Regulation Unit
Regulatory Unit

Human
Resources

Finance

General
Secretariat

Central Route
Charges Office

European
Air Traffic
Management

ATM Strategies

ATM Programmes

Experimental
Centre

Institute of
Air Navigation Services

Central Flow
Management Unit

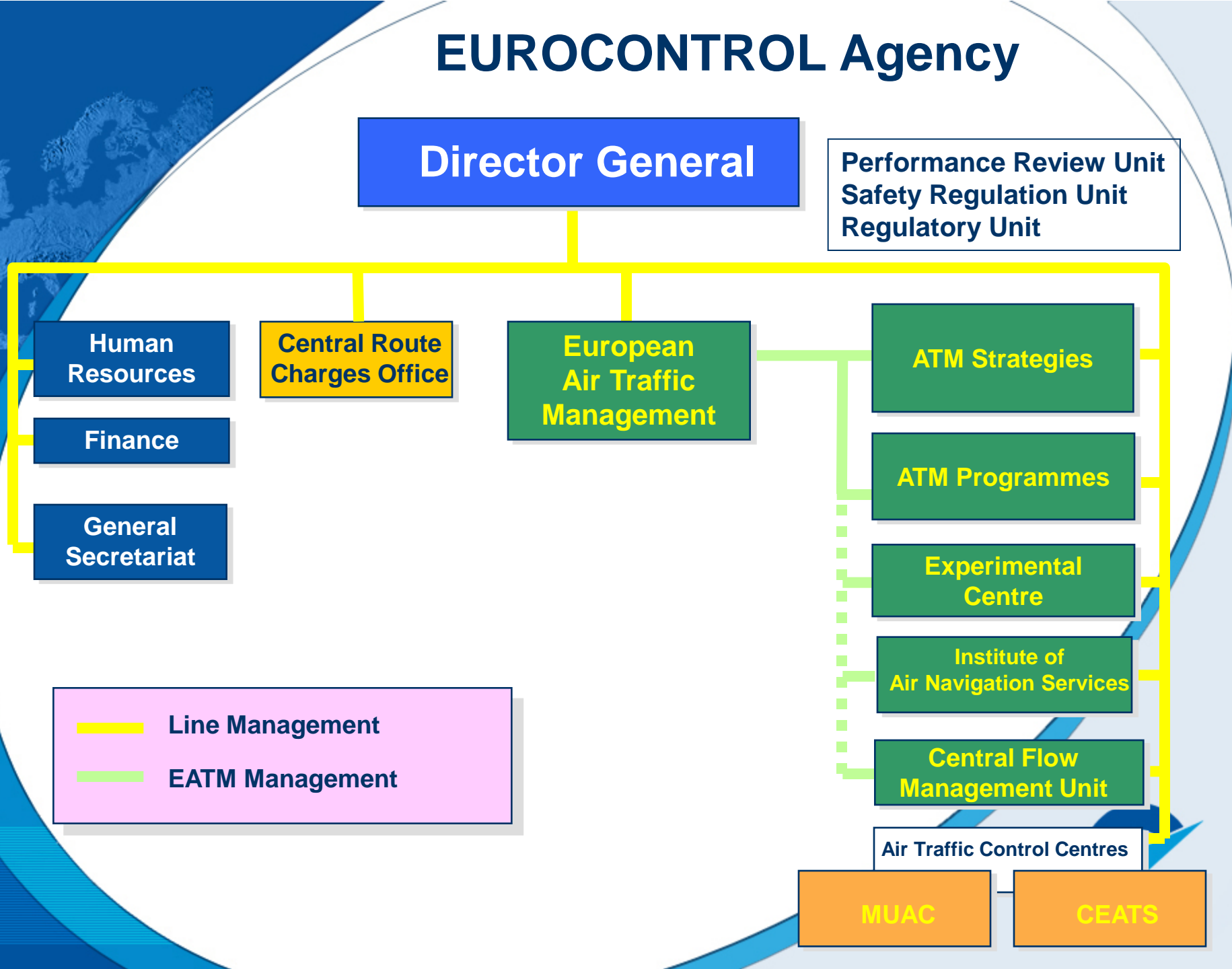
Air Traffic Control Centres

MUAC

CEATS

Line Management

EATM Management



EUROCONTROL

Agency Core Business

➤ **Support to Single European Sky regulation**

➤ **Management of pan-European, or multi-national or national harmonisation programmes, including support to implementation**

➤ **Central Flow Management**

➤ **Research & Development**

➤ **Collection of Route Charges on behalf of Member States and through bilateral agreements with non-Member States**

➤ **Provision of Air Traffic Services**

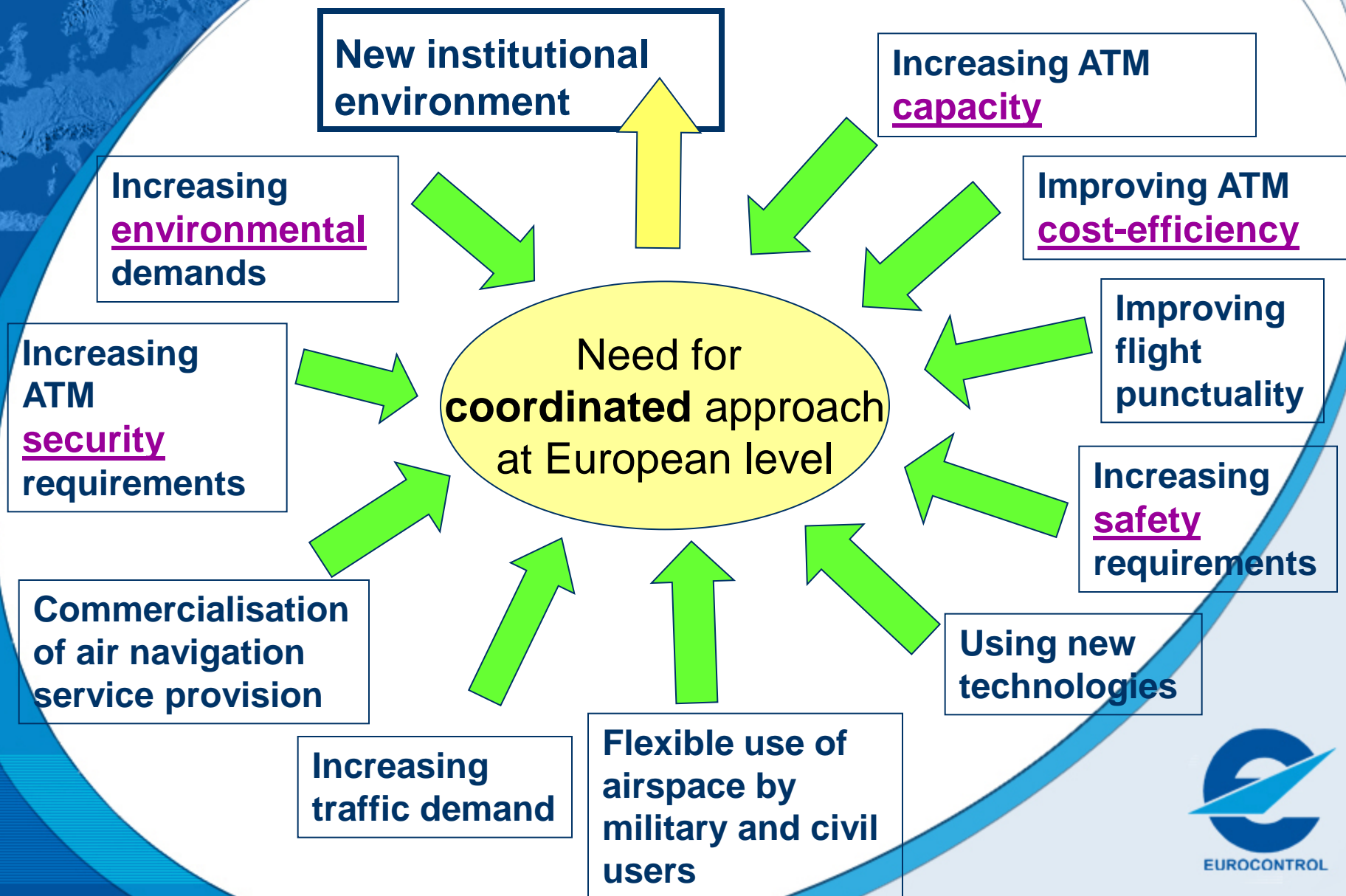
- **Management of an international (4 States) ATC Centre**
- **Development of an international (8 States) ATC Centre**

➤ **Provision of training, education and knowledge transfer in Air Navigation Services inside and outside Europe**

Introduction to ATM in Europe

- **10,785,000 km² of airspace**
- **Civil and military airspace users**
- **70 Air Traffic Control Centres**
- **With a total of 18,600 Controllers**
- **Handling 29,000+ flights on peak days**
- **Across 42+ states**
- **Up to 4,000 flights in the air at peak times**
- **Central high density area**
- **High proportion of climbing and descending traffic**
- **36,000 flight plan messages filed each day**

Challenging Context for European ATM



Single European Sky

- **Airspace management based on traffic flows, not on political borders**
- **Single institutional framework to prepare, agree and implement common standards and procedures ==>**
Independent regulator at European level
- **Uniform air navigation system across 42+ States ==>**
Gate to gate interoperability - SESAR
- **Incentivisation of the provision of Air Navigation Services**

Strategic Steps towards SES Implementation

En-Route Strategy for the '90s

1990

EATCHIP

2000

ATM Strategy for 2000+

EATM

2015

***Single European Sky
& SESAR***



Traffic Forecast for 20 years

Growth is confirmed for 2007...

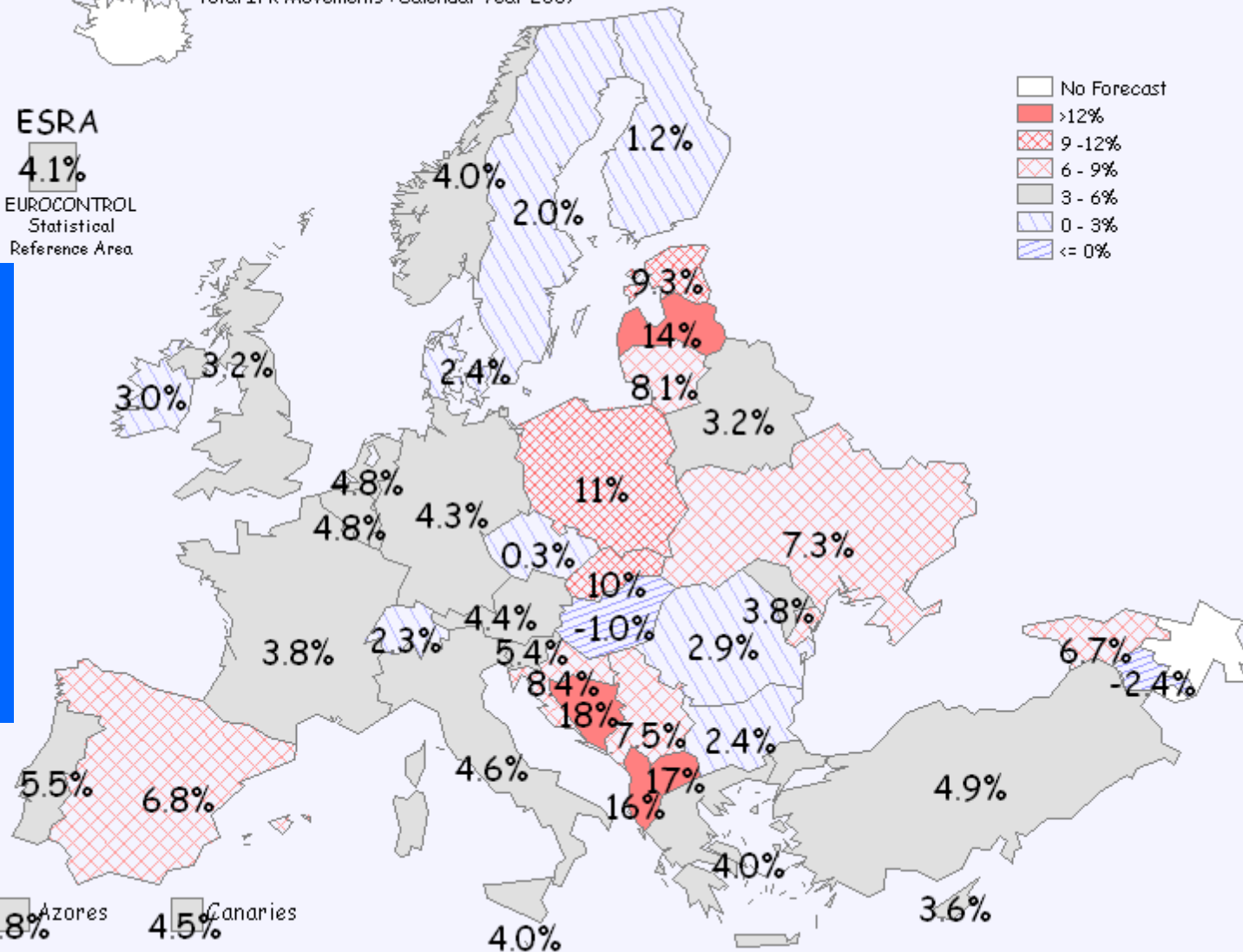
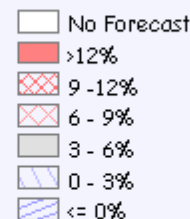
EUROCONTROL Short-Term Forecast

Total IFR Movements : Calendar Year 2007

ESRA

4.1%

EUROCONTROL
Statistical
Reference Area



Dated: 21Dec06 Last data: NOV2006

(c) EUROCONTROL 2006. STATFOR

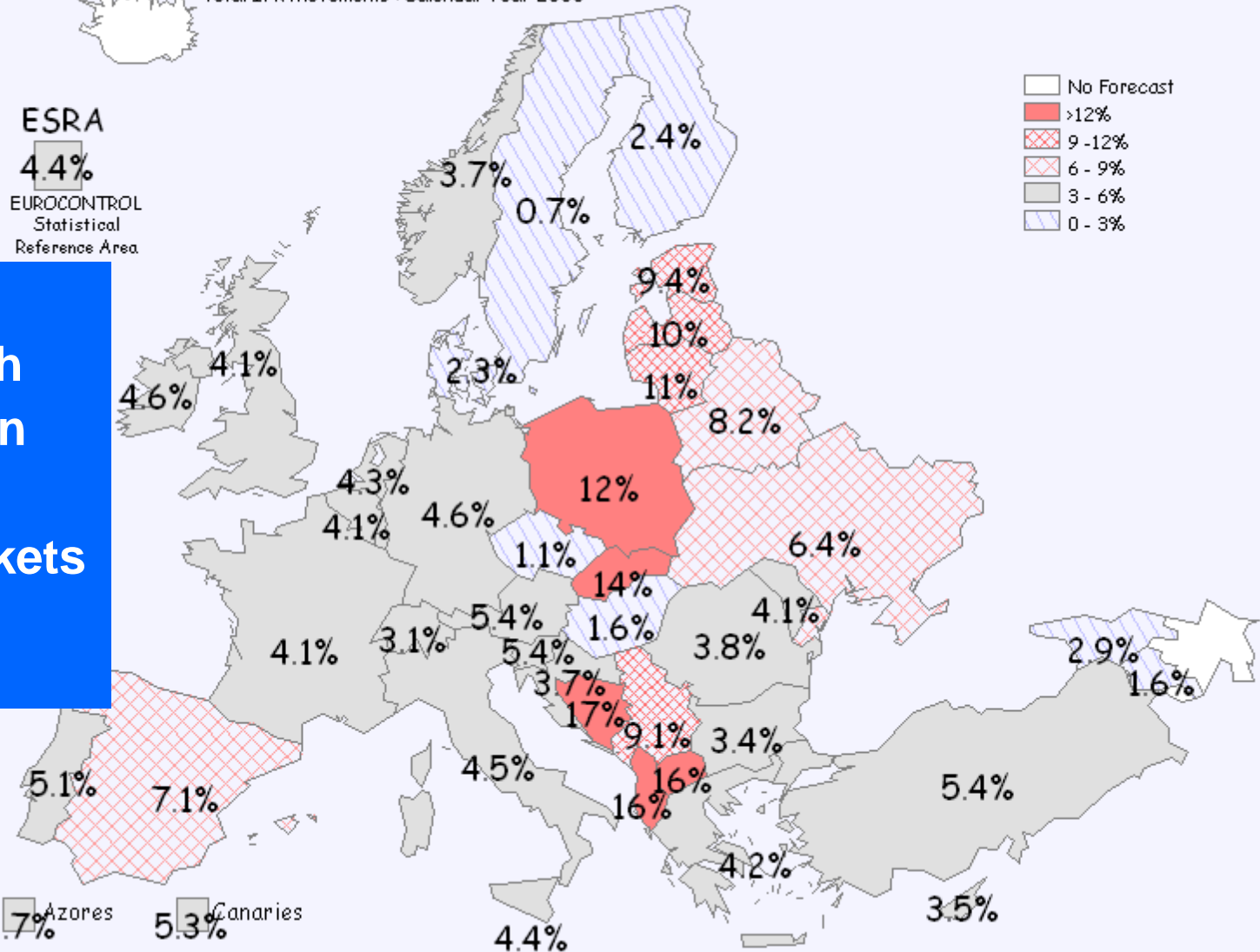
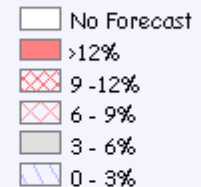
2007

- 4.1% for Europe
- Some double-digit in East & south

Growth is also confirmed for 2008...

EUROCONTROL Short-Term Forecast Total IFR Movements : Calendar Year 2008

ESRA
4.4%
EUROCONTROL
Statistical
Reference Area



Why?

- Core strength
- EU Accession
- Deregulation
- Shifting markets
- Low-Cost airlines

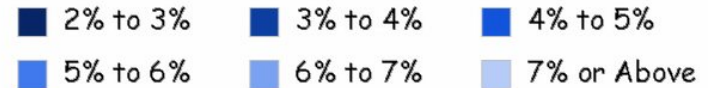
...and will continue to 2012

EUROCONTROL Medium-Term Forecast 2006-2012.

Average Annual Growth in IFR Movements.


ESRA
EUROCONTROL
Statistical
Reference Area

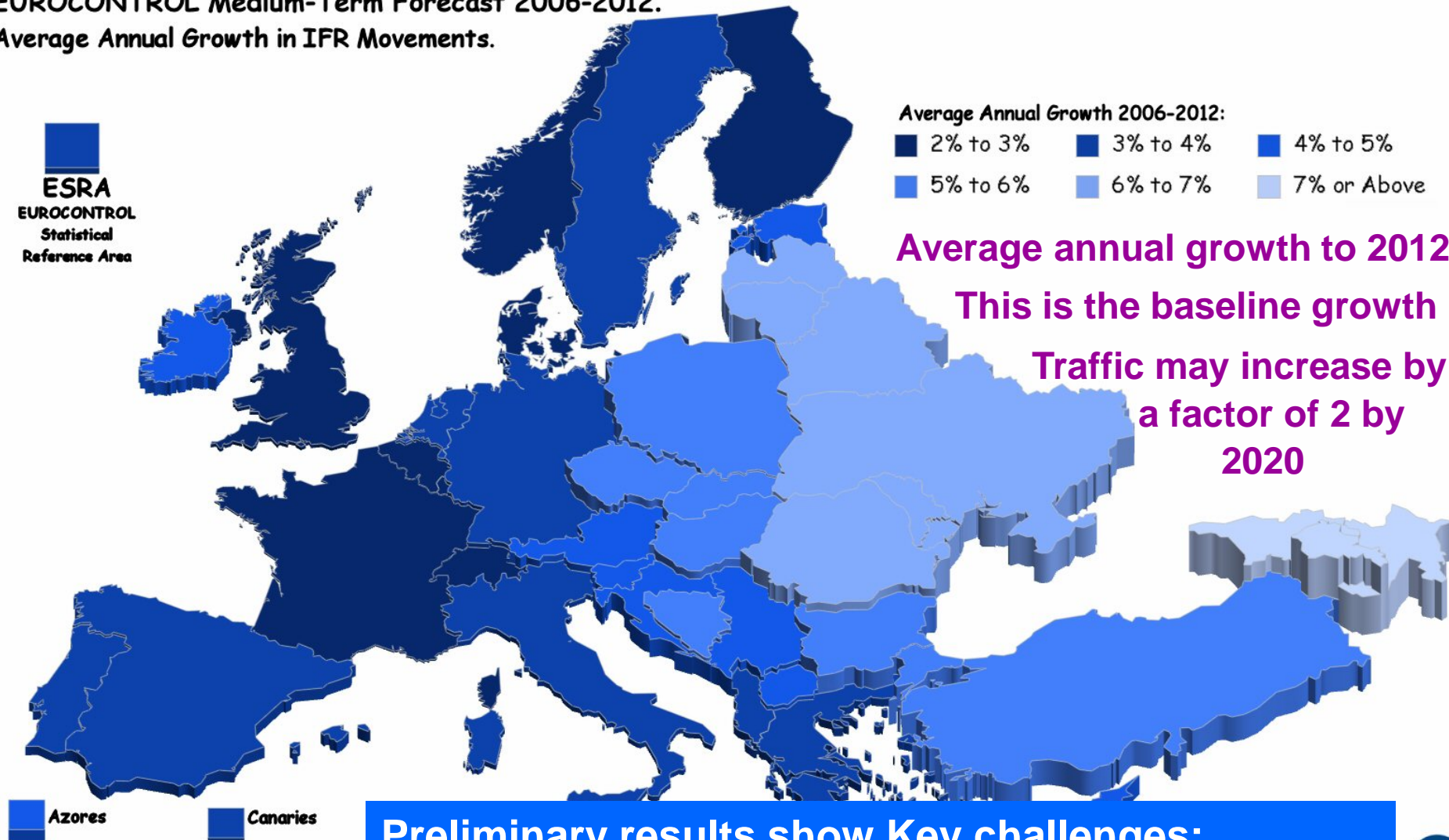
Average Annual Growth 2006-2012:



Average annual growth to 2012

This is the baseline growth

**Traffic may increase by
a factor of 2 by
2020**



Preliminary results show Key challenges:

- achieving current airport growth plans to 2012
- and continuing to grow capacity beyond that

Movements per day more in 2012 than today

Oslo:
+251 movements/day
faster growth than
average

Stockholm:
+212 movements/day
faster growth than
average

Amsterdam:
+124 movements/day

Copenhagen:
+244 movements/day
faster growth than
average

**These figures
assume no airport
capacity constraints.**

Prague:
+483 movements/day
faster growth than
average

Frankfurt:
+145 movements/day

Istanbul:
+562 movements/day
faster growth than
average

Roma:
+350 movements/day
faster growth than
average

Madrid:
+676 movements/day
faster growth than
average

Paris CDG:
+124 movements/day
Paris Orly:
+36 movements/day

Brussels:
+15 movements/day

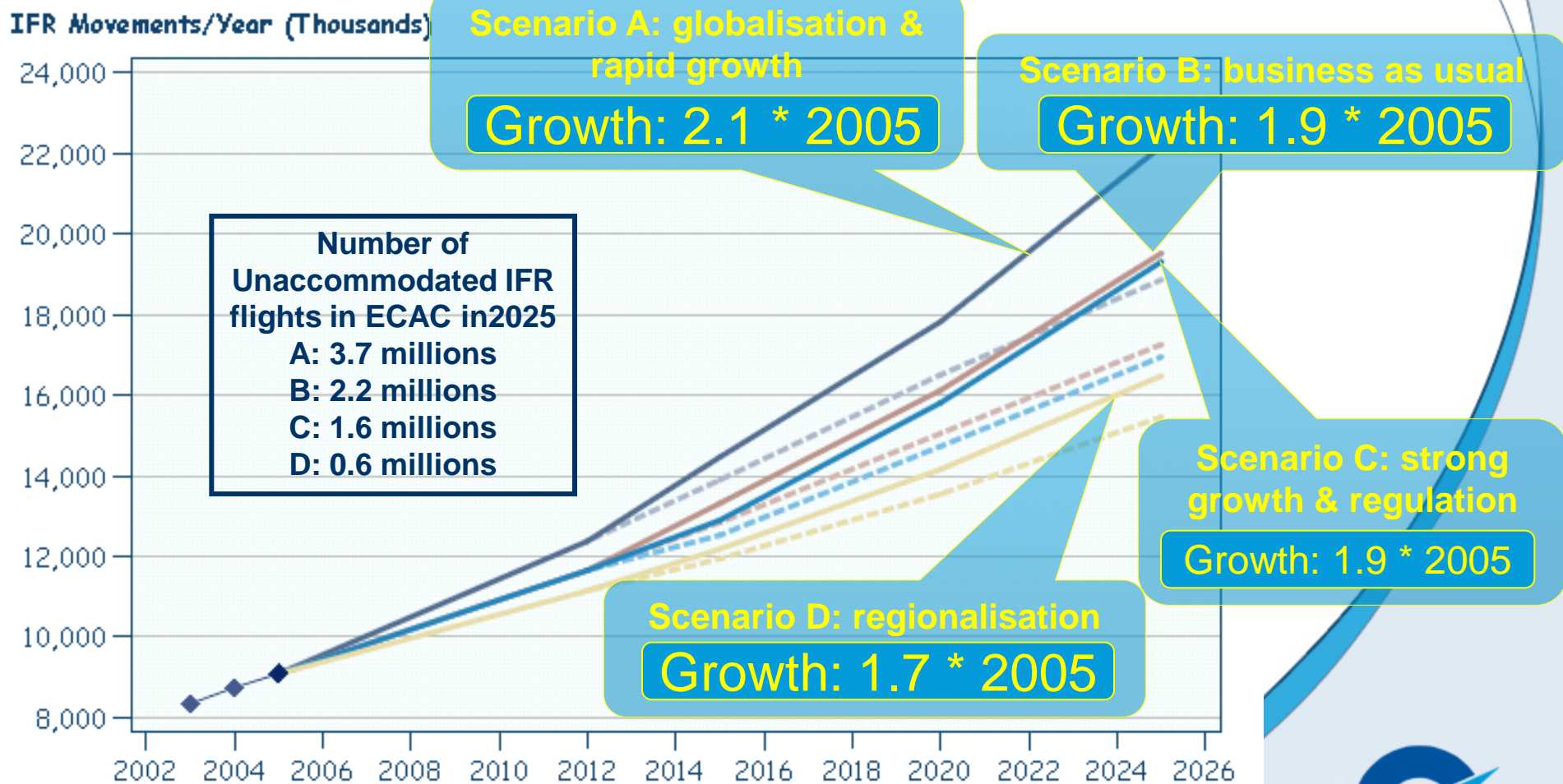
London Heathrow:
+240 movements/day
faster growth than average

Growth of IFR Movements at Airports
Additional movements per day 2012 v 2005
Medium-Term Forecast 2006:
Base (Nov 2005)

100 movements/day more in 2012 than in 2005
Figures are cropped to show airports more clearly.
Minimum change displayed = 50 movements/day.

Long term forecast (2012 - 2025)

What might the industry look like in 2025?



Highest figures assume no airport capacity constraints.



Resulting Challenges for Airports & Potential Solutions

What Challenge?

- 
- Normal traffic growth scenario – traffic could grow by a factor of 2 by 2025
 - Europe's core area is facing increasing airport ATM related delays...
 - Even if all latent capacity realised, over 3 million flights are still not accommodated

Challenges Vs Solutions

**Safety
Issues**

**Increasing
proportion
Of airport ATM
Related delays**

**Apparent
Lack of
capacity**

**Today's
Challenges**

Queuing

Do Have

Infrastructure

Solutions

**Environmental
concerns**

Fuel burn

Overall solutions

DMEAN

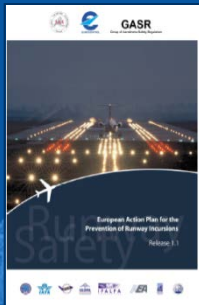


SESAR

More Specific Solutions

Airport Airside Capacity Enhancement & Planning





GASR

Group of Aerodrome Safety Regulators



- A-SMGCS future core of efficient airport operations
- 90% airports have Local Runway Safety teams
- High involvement of Airports / ANSPs / IATA / IFATCA
- Increase in Awareness Visits (joint EUROCONTROL/IATA)
- 1st set of A-SMGCS procedures already to ICAO
- Aerodrome Resource Management
- Working with major airports & airlines for harmonised implementation
- Benefits – night, high intensity operations & low visibility

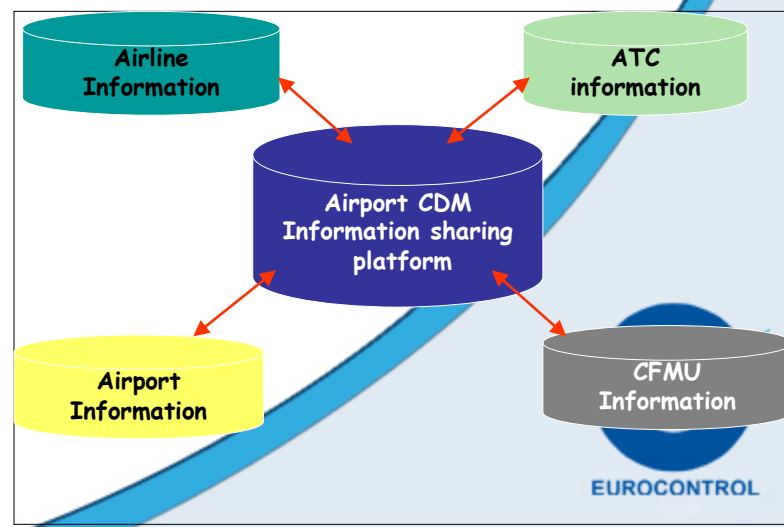


- Integrate airports into the ATM Network
- Capacity assessment / enhancement – Prague +8 movements/hour over 2.5 years, Brussels 14-17% unlock of latent capacity (used for delay reduction), Lisbon assist to increase from 36-40 movements/hour
- Delay reduction using real reasons for delays, implementing delay reduction solutions
- Reduced fuel consumption

Fully supported by airlines incl:

- Austrian
- Air France
- KLM
- Lufthansa

- + 13 airports will soon implement A-CDM
- More implementations are expected under the "support to DMEAN activities" which take place in conjunction with ACE



Another challenge for Airports?

**EUROCONTROL
ATM “Products”**

Airports

EUROCONTROL



AIRNETH Conference
The Hague, 12th of April 2007



Time for Some Questions ?

www.eurocontrol.int/airports

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