

EUROCONTROL

The New EUROCONTROL

and

The ATM 2000+ Strategy

C/AFT, 29-30 April 1998

Val Eggers, ATM 2000+ Strategy Board Chairman

WHY AN ECAC INSTITUTIONAL STRATEGY?

- **ECAC strategies already adopted by ECAC Transport Ministers in 1988, 1990, 1992 covered three main operational elements (CFMU, EATCHIP, APATSI).**
- **These three strategies have been implemented within existing institutional structure and have made considerable progress (CFMU fully operational, EATCHIP and APATSI programmes well advanced).**
- **Many calls from the airlines associations (AEA, ERA, IACA and IATA)**
- **as well as from the European Commission supported the States'**
- **and EUROCONTROL's plans for change**
- **Institutional study (INSTAR study) launched by ECAC Ministers of Transport in Copenhagen in June 1994 (Matse/4), undertaken in four phases by ECAC experts with consultancy support and input from key international organisations (JAA, European Commission, EUROCONTROL) and user organisations.**

HIGHLIGHTS OF THE STRATEGY AGREED

- a single simplified ECAC-wide structure, legally based on the revised Eurocontrol Convention,
- wider EUROCONTROL membership (all the ECAC States),
- APATSI activities fully integrated into EUROCONTROL,
- new independent performance review,
- active involvement of ATC service providers,
- strengthened airspace design planning,
- more focused R&D,
- covering ATM safety regulation and standards making,
- availability of economies of scales,
- customer involvement (airspace user and airport organisations) and better civil/military co-operation,
- a stronger voice in world affairs.

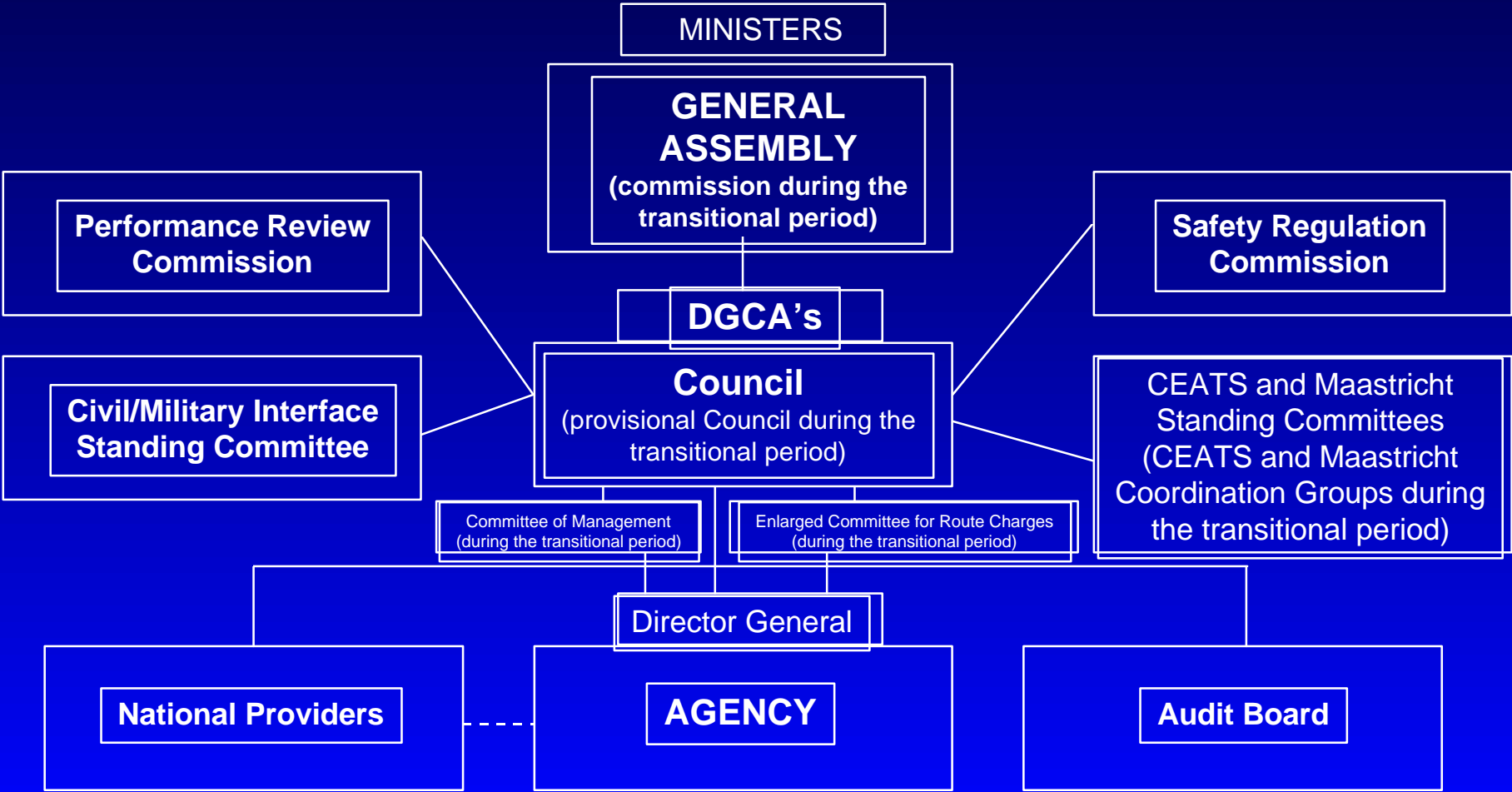
MAIN REASONS FOR THE REVISION OF THE EUROCONTROL CONVENTION

1. Need for an improved institutional and legal framework and for strengthening EUROCONTROL's action in the implementation of the major ATM programmes within the political context defined by the Member States,
2. Need to provide a framework covering the needs of all partners of the aviation community and prevent overlapping of efforts,
3. Need to adapt legal situation to the actual circumstances and to review the decision-making machinery (majority) within EUROCONTROL to facilitate effective action for the improvement of ATM. Improve the representation of the users in the decision-making processes and to ensure adherence to all rules, standards and specifications developed by EUROCONTROL.

RE-ORGANISATION OF EUROCONTROL'S PRINCIPAL EXISTING TASKS AND NEW TASKS

- 1. Common harmonisation and implementation plan in respect of air navigation services and facilities in Europe (EATCHIP and Strategy 2000+).**
- 2. Common standards and specifications.**
- 3. Harmonisation of regulations applying to air traffic services.**
- 4. Increase of available capacity to meet air traffic demand through the CFMU in the framework of the EATMS.**
- 5. Common procurement of air traffic systems and facilities and definition of appropriate implementation strategies.**
- 6. Planning, introduction and application of future common European systems entrusted to EUROCONTROL by the Member States (AIS, SAT/NAV, etc.).**
- 7. EUROCONTROL to take over airport ATM development (formerly APATSI)**

EUROCONTROL STRUCTURE



EARLY IMPLEMENTATION OF THE REVISED CONVENTION

- **the new tasks included in the revised Convention are entrusted to the Organisation as from 1.1.1998,**
- **The Director General manages the Agency instead of the former co-management with reps. of Member States.**

A new Institutional Framework - The political will: an ATM 2000+ Strategy

- The ECAC Transport Ministers

1992

- endorsed development of concept for EATMS

1997

- confirmed commitment to a uniform European ATM System
- requested development of a gate-to-gate orientated ATM strategy for 2000+ as follow-up of strategies for the 90's
- adopted a new Institutional Strategy

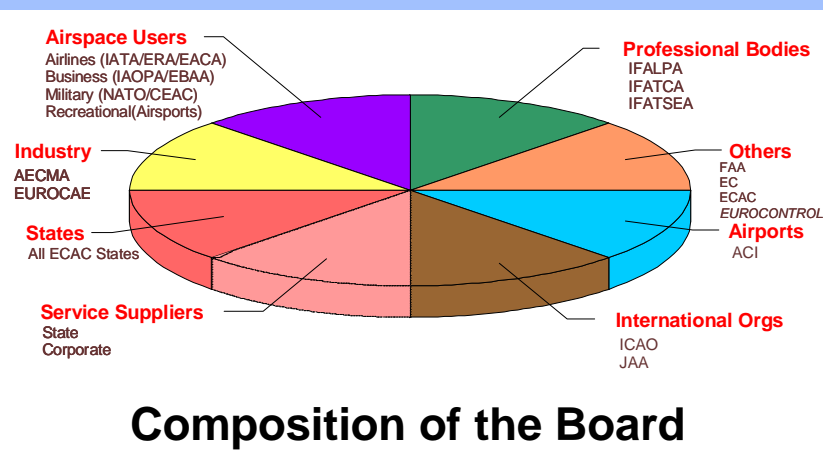
Developments and contributions have been made in the meantime

- EATCHIP & EATMS work
 - Mission, Objectives and Strategy, User Requirements,
 - Operational Concept

Next Objective: Ministerial approval of the Strategy in 1999

Sequence of Events

- Sep 1997 Document circulated for consultation
- Oct 1997 Creation of ATM 2000+ Strategy Board
- Feb 1998 ATM 2000+ Workshop
- Apr 1998 Issue of revised strategy document
- Sep 1998 Completion of feedback process
- Nov 1998 Final document for DGCA approval
- Early 1999 **Ministerial approval**



Features of the ATM 2000+ Strategy

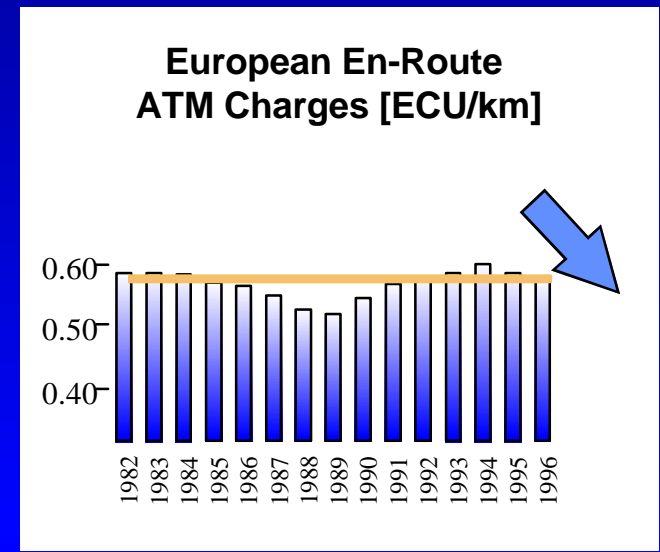
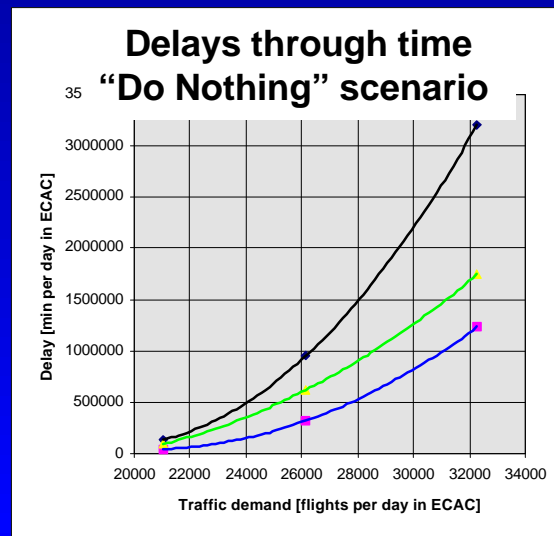
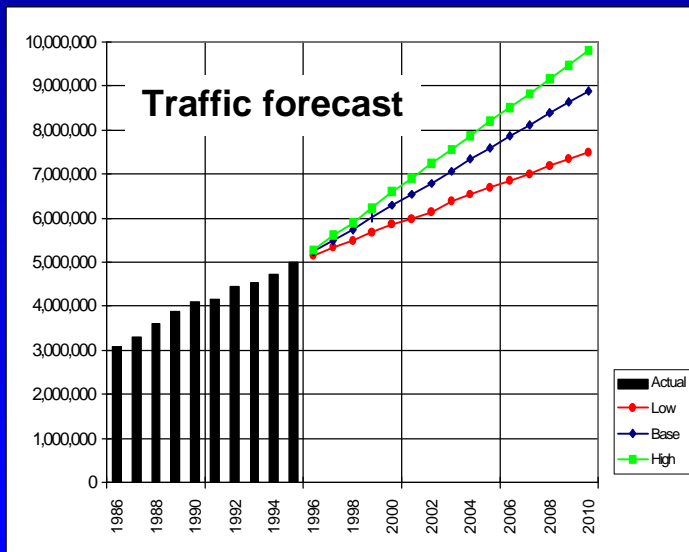
- Based on a single enroute&airport, gate-to-gate airspace
- Based on agreed and monitored system performance objectives
- An umbrella strategy over mature technical and operational substrategies and R&D substrategy
- Commitment of all stakeholders. Collaborative decisionmaking
- Within the ECAC Instit. Strategy & the revised Convention
- Clear rules/principles for decision making and resource allocation
- A dynamic process
- Current practical planning horizon: 2015
- Building on previous and current work, common (EATCHIP, APATSI) and from States. Work of ATM2000+Strategy Board.
- Via evolution: the way to two revolutions

Document Structure (Issue 2.0, May 1998)

- **Volume 1**
 - for political understanding and approval
- **Volume 2**
 - additional rationale
 - more detailed road map
- **Foreword**
- **Executive Summary**
- **A European ATM Strategy for 2000+...WHY**
- **Aviation in the next decades**
- **Mission & Strategic Principles**
- **Major Objectives**
- **Trade-offs**
- **Management Process**
- **Action Programmes**
- **(Recommendations)**

A Strategy, WHY?

- **THE NEED FOR CHANGE**
 - Pressure for Sustained Growth at Acceptable Cost
 - Delays, Shortfalls, Needs and Limitations
 - Managing the Cost of Implementation



WHAT'S THE DIFFERENCE

EATCHIP & APATSI

More capacity

Maintain safety level

ATM2000+ STRATEGY

More capacity at reduced unit cost

Increase safety level

Main User Requirements

- Continuous **user involvement** in planning process
- **Gate-to-gate** operations
- Use **cost-benefit analysis** for:
 - Selection of concept options, trade-offs between objectives
 - Development and implementation decisions: incentives rather than mandatory
- **Interoperability**:
 - Adjacent areas, ICAO
- **Non-discriminatory access**
- Aircraft **operator** responsible for **conducting flight**
- **Adaptability** to cope with:
 - Various requirements in types of operation and level of service
 - Various aircraft equipage
- **Flexibility**
 - Dynamic flight trajectories
- Improved meteorological data
- Ensuring handling of **defence** flights
- Support to the **EATMS objectives**

Mission Statement

- **For all phases of flight, to enable the safe, economic, expeditious and orderly flow of traffic, through the provision of ATM services which are adaptable and scaleable to the requirements of all users and areas of European airspace.**

The services shall accommodate demand, be globally inter-operable, operate to uniform principles, be environmentally sustainable and satisfy national security requirements.

Strategic Principles

Applied systematically, universally, throughout system and life time of all activities

- **One Gate-to-gate Airspace**
- **Safety**
- **Economy**
- **Freedom of Movement & Service Quality**
- **Sovereignty**
- **National Security and Defence requirements**
- **Environment**

Major Objectives

- **Safety**
- **Economics**
 - **Costs**
 - **Financing**
 - **Pricing**
- **Capacity**
 - **Access**
 - **Delay**
 - **Predictability**
 - **Flexibility**
 - **Flight Efficiency**
- **Environment**
- **National Security & Defence Requirements**
- **Uniformity**
- **Quality**
- **Human Factors & Commitment**

***General objectives, no
quantified targets in Vol.1
Trade-offs are necessary***

Target Operational Concept

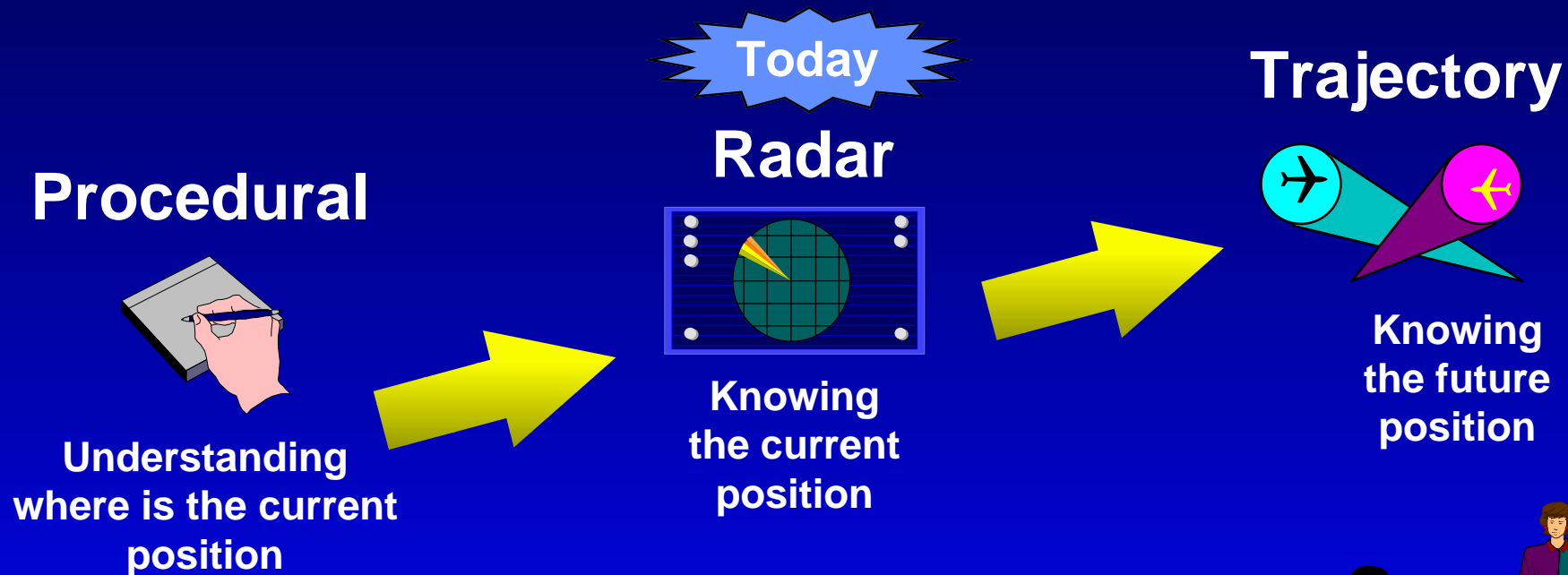
Proposed Operational Concept Document (OCD),
dated March 1997

6 main characteristics, customer-orientated:

- ➔ Managing Flights from Gate to Gate
- ➔ Enhancing Flexibility & efficiency
- ➔ Collaborative Decision Making
- ➔ Responsive Capacity Management to meet demand
- ➔ Managing Airspace Collectively
- ➔ Extending Level of Automation in ATC

+ Safety
improvement
in the face of
increasing
traffic levels

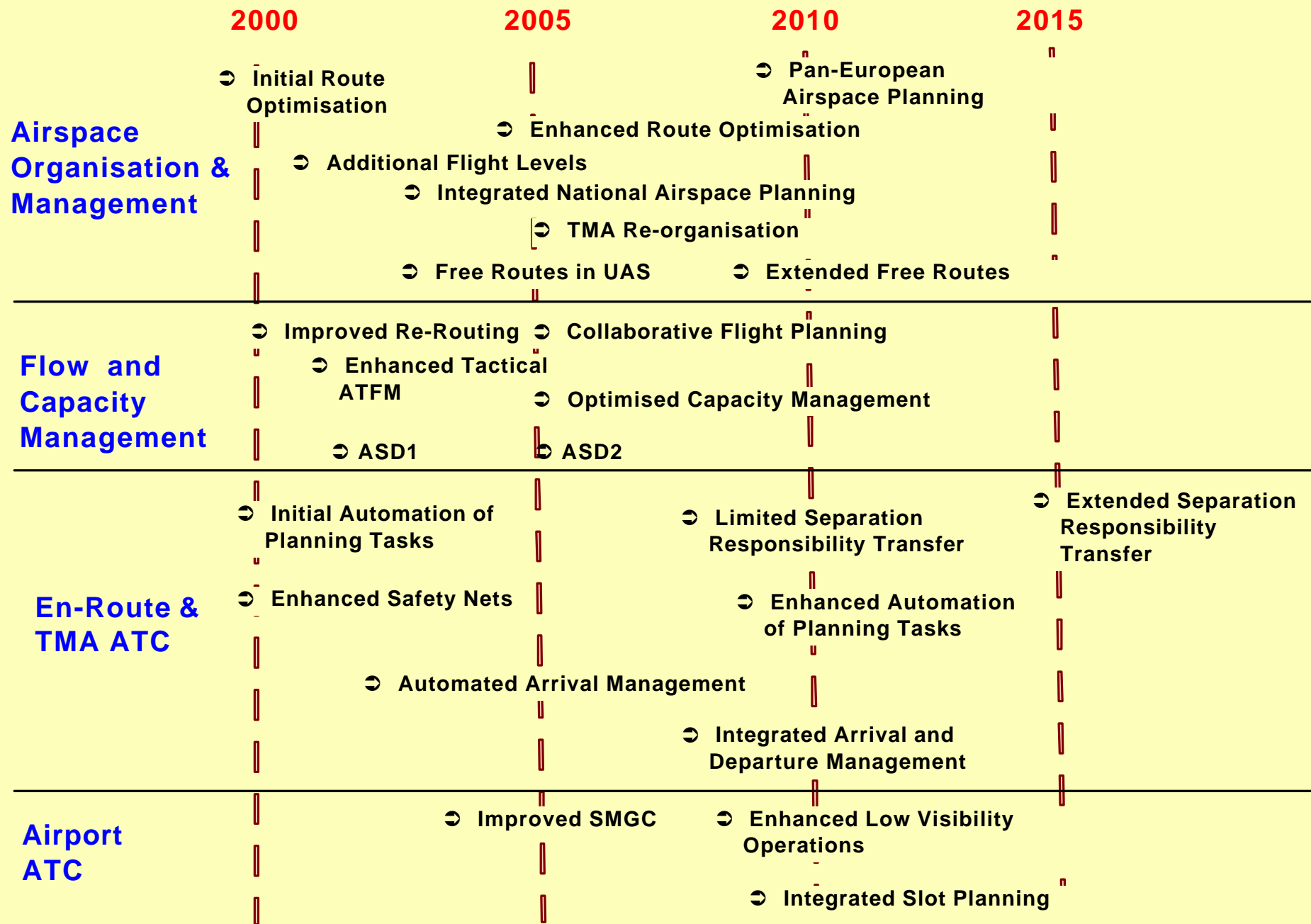
Evolution of Roles and Responsibilities



Human ultimately responsible for real-time decision
Task sharing to be focused on enhancing the differing strengths of human and machine



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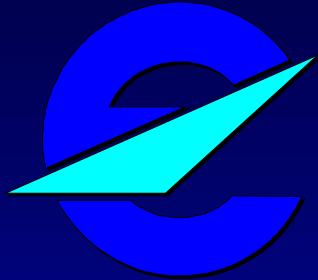


Towards Collective Success

- **A Collaborative Process**
 - **integration of all partners' actions**
- **Implementation**
 - **understand causes of programme delays**
 - **focus the programmes**
 - **establish business cases, decision points**
 - **secure resources**
 - **perform early pre-operational trials**
 - **involvement of industry in all phases of lifecycle**

Strong Messages

- **Able to accommodate demand? yes, but...**
- **Revolutions to be made:**
 - from a/c position to a/c trajectory management
 - from skill to knowledge
 - new role of airborne element in separation assurance
- **One gate-to-gate airspace**
- **Uniformity**
- **Data communication network and applications**
- **Improved safety, risk management**
- **Reduced service costs**
- **Effective management**
- **Commitment from all actors, collaborative decisionmaking**
- **Supportive regulatory framework**
- **Strong R&D**



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