



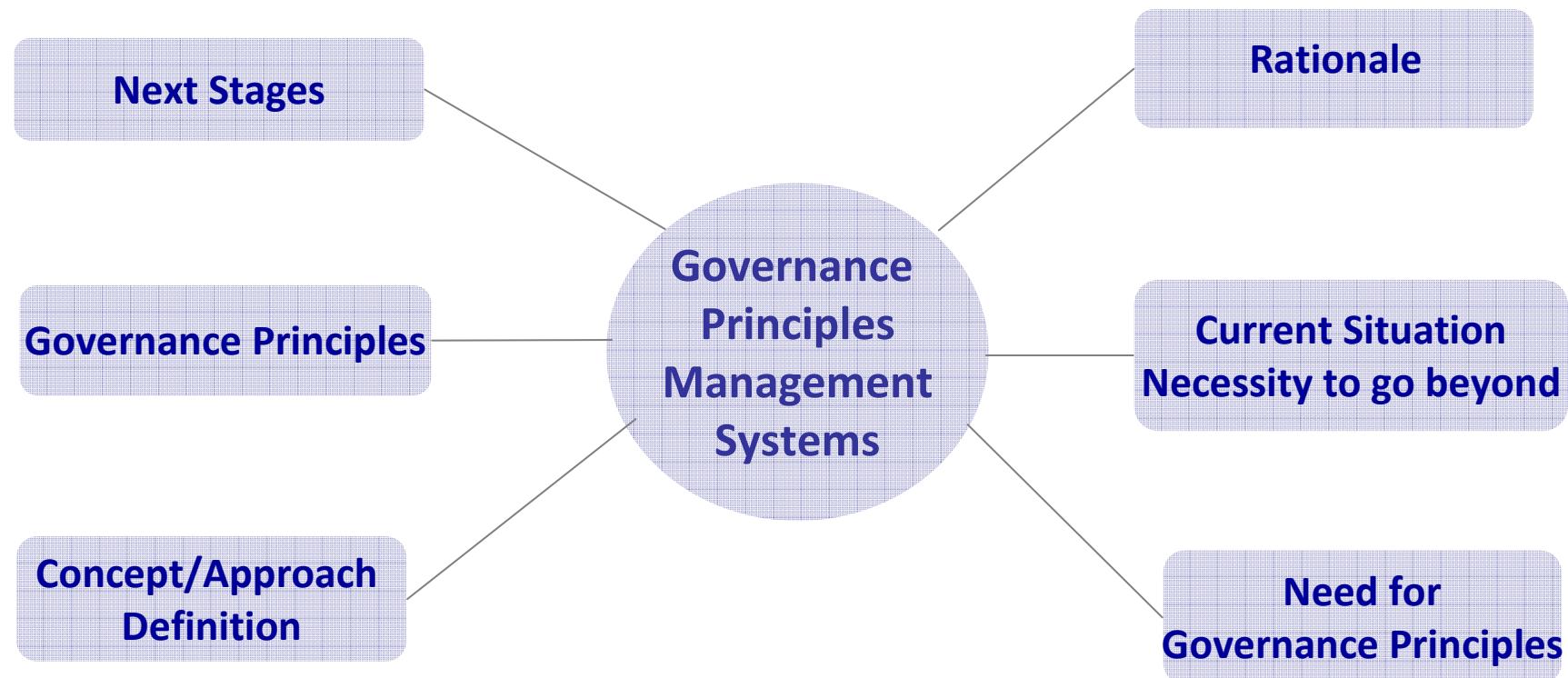
# Governance Principles of Management Systems

CND – CoE/Safety  
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# Overview





# Overview

## Covered

**Input for  
Decision Making  
Process**

**Global Risk  
Approach**

**Global Performance  
Management Systems**

**Governance  
Principles  
Management  
Systems**

## Not Covered

**Corporate Governance**

**Management Systems  
Content**

**Costs of Management  
Systems**





## Rationale

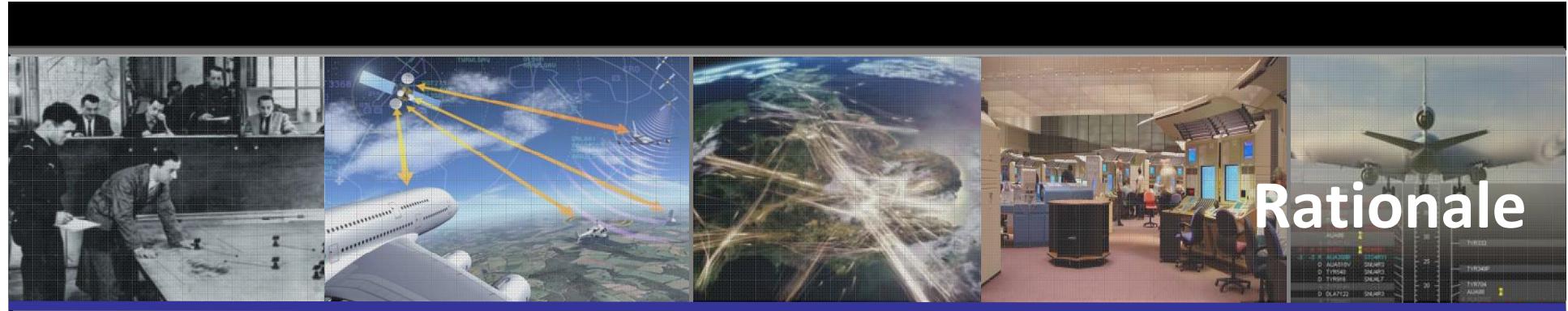
### ■ EC Regulatory Framework

- Without Complying with CR2096 the ANSPs are not Certified to Operate
- EIA Directive 85/337/EEC related to Third Party Risk & Eco-Management & Audit Scheme – EMAS
- Requirement & performance of an ANSP Management Systems has to be a Core Business requirements

### ■ Peculiarity of Management Systems (Saf, Qual, Sec & Envrt)

- Different Standards
- Different Objectives & Framework
- Different Requirements
- Different Risks Measurement
- Implies Managing Systems Interfaces



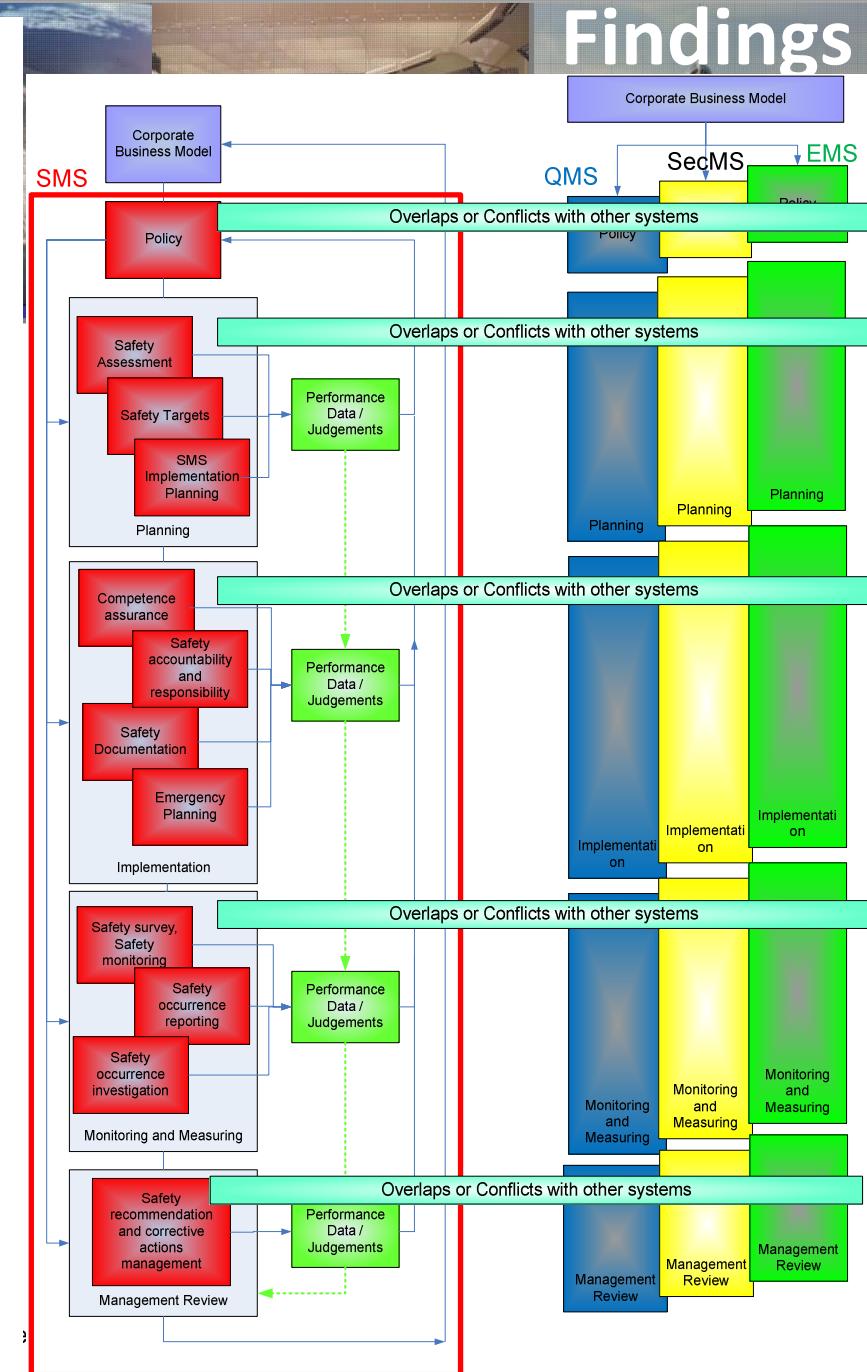


## Rationale

	<b>ICAO SMS/ EGSMM SAFETY</b>	<b>ISO 9001/2000 QUALITY</b>	<b>ISO 14001/EMAS ENVIRONMENT</b>	<b>ISO 28000/ESecMH SECURITY</b>
<b>Objective</b>	Managing Safety Risks	Customers Satisfaction	Third Parties Satisfaction	Managing Security Threats
<b>Framework</b>	Legal and Regulatory	“Contractual”	Legal and Regulatory	Legal and Regulatory
<b>Requirements</b>	Identification Safety Issues	Identification Customer Needs	Identification Environmental Aspects & Legal Requirements	Identification Security Issues & Legal Requirements
<b>Risks Measurement</b>	Safety Assessment	Review of Customers Satisfaction	Environmental Impact Assessment	Security Assessment

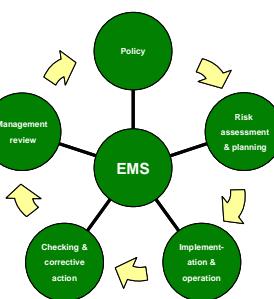
# Findings

- CR2096 - traditional SAF and QUAL systems, but also SEC.
  - Some ANSPs have established management systems covering SAF & QUAL, & SEC has been added into existing processes.
  - Others have undergone the process of implementing multiple systems.
  - Within these systems there are the potential for both **overlaps** and also **conflicts**.
    - More areas of conflicts in policy & planning stages.
    - More overlaps in implementation and monitoring and measurement elements.
  - The **shape & degree** of integration of systems varies
    - Some have fully integrated mature systems,
    - Some have implemented new integrated systems,
    - Others have in place completely separate systems.
  - ANSPs do not believe that conflicts exists in their own systems, if any reliance on individuals to identify them
  - No formal systems in place to deal with conflicts, AdHoc process for resolving from escalation (meeting) or use Corporate Governance ( driven by transparency & accountability in the context of financial reporting & practices)
  - ANSPs recognize that economic climate will impact them in different ways (cultural issues)



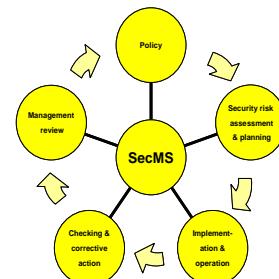


- Balancing Noise Criteria vs Safety Objective
  - Crosswind and tailwind operations to major airports
  - Complex departure/ approach routes in TMA to minimise noise, etc.



- Capacity vs. environment
  - Increasing use of CDA provides a challenge to maintain capacity in busy airspace

- Security vs. efficiency
  - Security measures reducing ability to perform efficiently, e.g. multiple passwords



- Resource allocation between the different management systems, etc.





## Conflicts as per Governance Principles

- Conflicts?
- .....an ***actual*** or ***perceived*** opposition of requirements between one or more management system. It represents an “**inefficiency**” within the system and results in a poorer performance of the management system
  - e.g. conflict between capacity and environment

### Why are conflicts an issue?

- .....are our management decision making process healthy ?
  - Wrong priorities
  - Delays
  - Wastage in system
  - Reduced effectiveness & Poor use of resources, etc





- Today “solution” for Multiple Management Systems

- **Separated**

Independence between Systems

Avoiding common problems

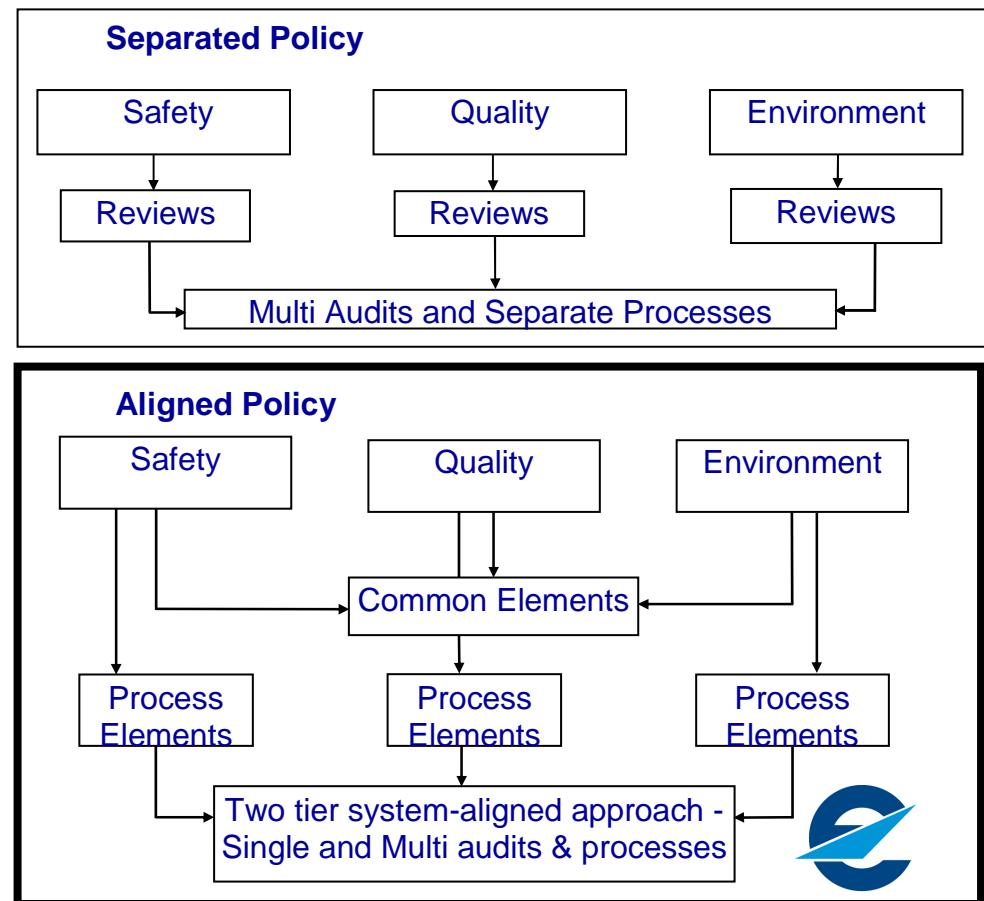
*Creating duplication of effort*

*Ensuring coherency*

- **Aligned**

Allows a degree of separation  
in the operation of the management  
Systems

*“COMMONALITIES”, routed through the  
same system, allowing common problems  
and/or trends to be identified & acted on*





- **Integrated**

Stimulation of business improvement via waste reduction, both in the operation of the processes & management systems; Removal of duplication; risk reduction; Removal of barriers between departments & functions

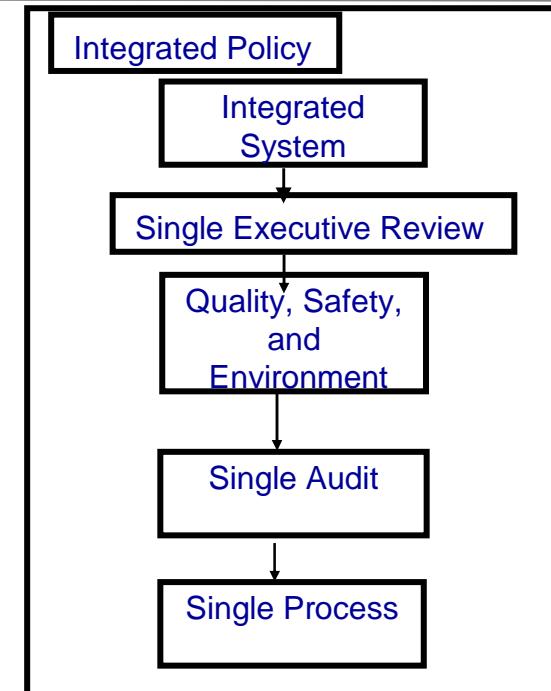
*Efficiency depends on both  
the complexity of Management Systems, and  
the will of the Organization to pursue it*

- **Mainly Economy of scale and scope**

- **Systems are compatible, limited or no guidance on how to manage the interfaces & system interaction**

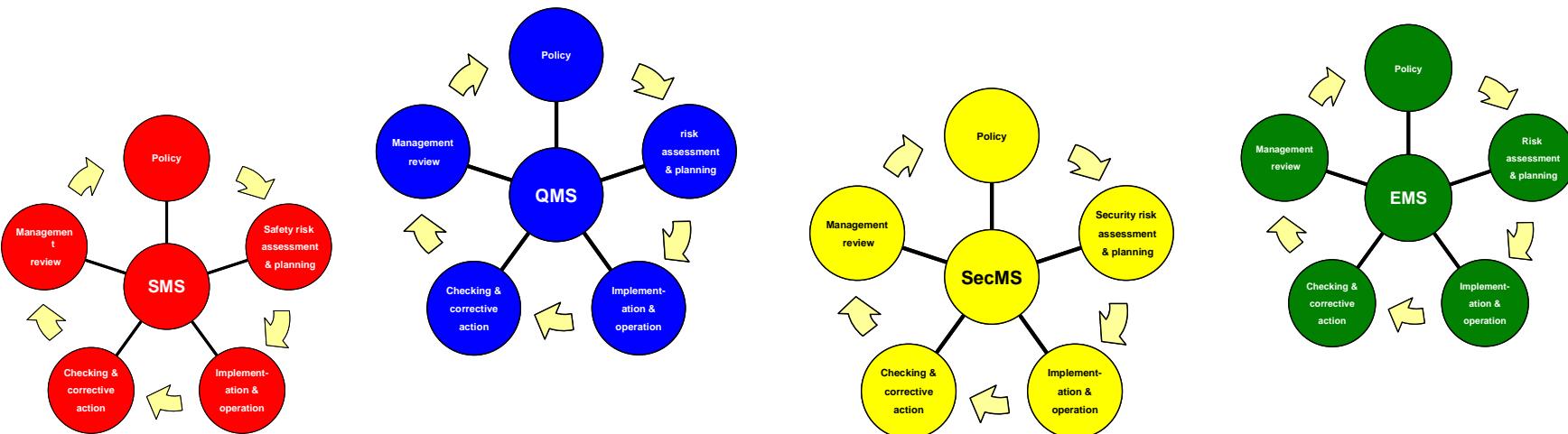
- ***How to avoid conflict of interest (Capacity vs Safety)***

- ***Does it really solve Conflicts between Safety vs Envrt, Safety vs Quality..?***





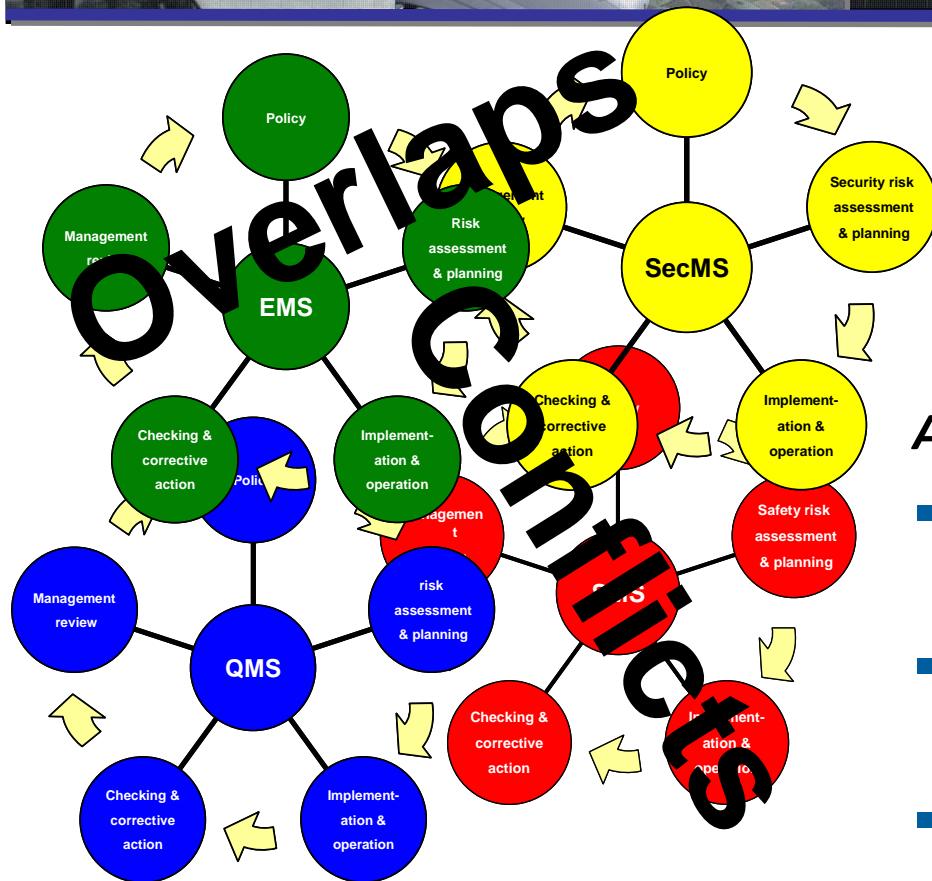
- Increasing importance is currently being given to other ANSP Management Systems, SEC and ENV (less mature in ATM), in addition to traditional SAF & QUAL





## Need for Governance Principles

- Competition for resources, e.g.
  - US Department for Homeland Security spent \$6 billion in 2009 on IT systems alone
  - In last decade there have been 4,666 passenger fatalities on worldwide commercial jets due to accidents (excluding hostile acts)
- Economic downturn has resulted in staff reductions, loss of system knowledge, reduced availability of funds, greater reliance on existing systems etc.
  - ANSPs are facing greater challenges in a harsh economic climate
  - Management systems must work harder to deliver requirements
- *Have we got the balance right? / Arbitration*



- Multiple Management Systems
- Common elements (PDCA cycle)
- Individual Requirements
- Measures to manage interfaces

### *And as essential*

- Full visibility of Global Effectiveness of Mgt Systems
- Comprehensiveness of Risks & Global Risk based Approach
- FAB
- SESAR (Transparency, Perf & Effectiveness)
- Input for Decision Making Process



## Need for Governance Principles

- With multiple management systems, the biggest issue from a system perspective is managing the interfaces.
- « Conflicts » could happen, even if they are not seen as something that regularly an ANSP has to dealt with.
- More the decision making process lasts and not solved/reduced at the level below of the organisation, more is the escalation at CEO level and conflicts get political issues
- There will have always interactions between systems as they all process Business activities and residual conflict will always be present and not solved completely
- Reinforcement of “legal aspects” and “stronger customer requirements”, conflicts will be more and more difficult to solve.
- Necessity to get “COMMON” principles and identified how far COMMONALITIES can be implement without impacting Mgt Systems performance and effectiveness
- At the end this calls for ARBITRATION if needed - *Have we got the balance right?*





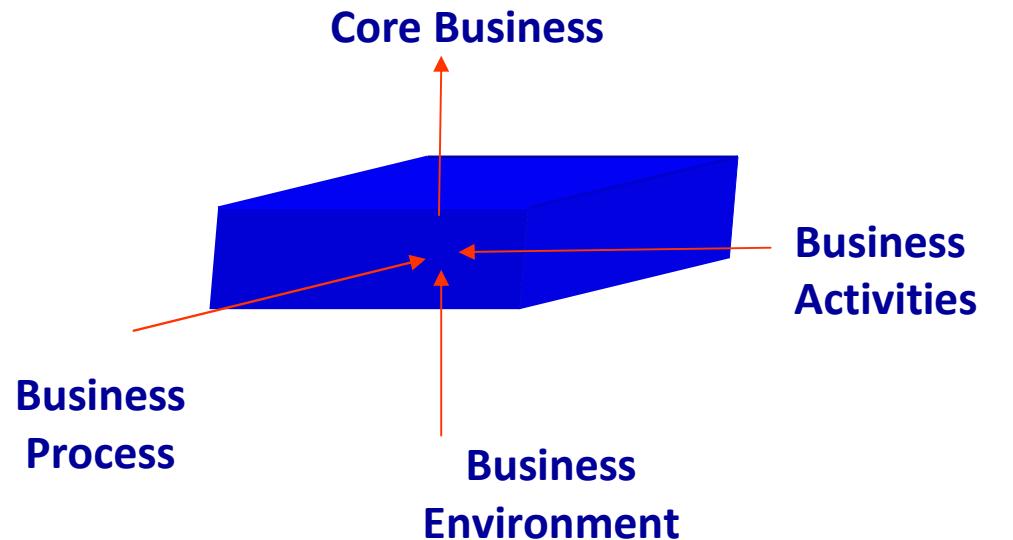
## What is Governance

- ➡ Governance as analytical framework for non hierarchical coordinating system
  - Governance of Organisation
    - Piloting organisation is not only hierarchical, but also observing and formalizing concrete mechanisms and institutions facilitating coordination between organisation units, arbitration of divergence and maintenance of cohesion and management of cost transaction led by horizontal piloting more than vertical ones





- It is a Practical Methodology for analyzing collective process determining:
  - How management support are efficient in the decision making process
  - How a decision is made
- Focus on the Core Business
- If efficient “Reduction of Conflicts” at the right level
  - Arbitration at CEO level



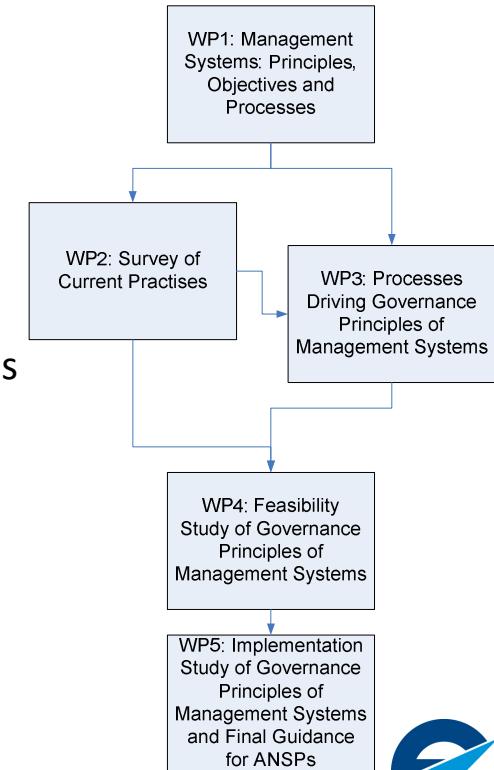
- Global Risk Driven
- Comprehensiveness of risk criteria already existing in Management Systems

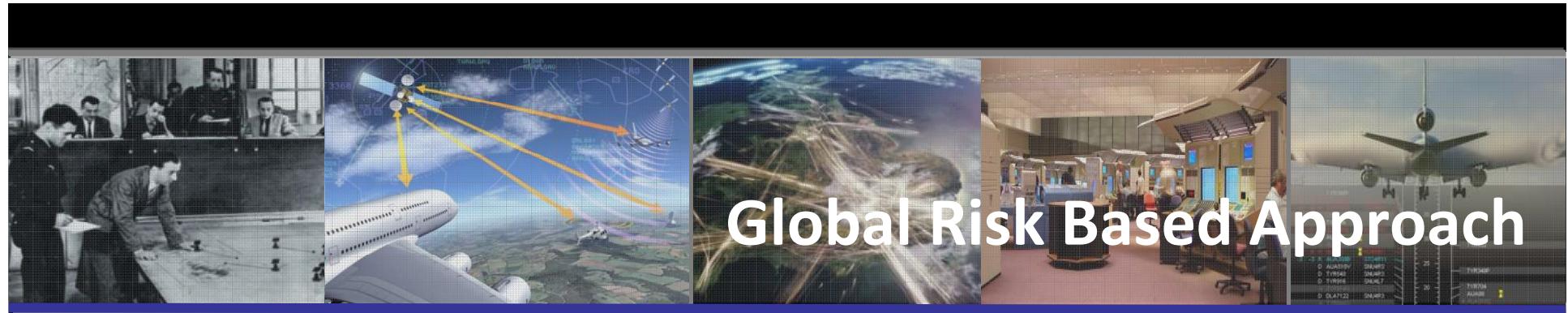




**Project objective** is to provide **guidelines to support ANSPs** in the identification of their own approach to both define and implement Governance Principles of Management Systems centred on a safety-based risk approach.

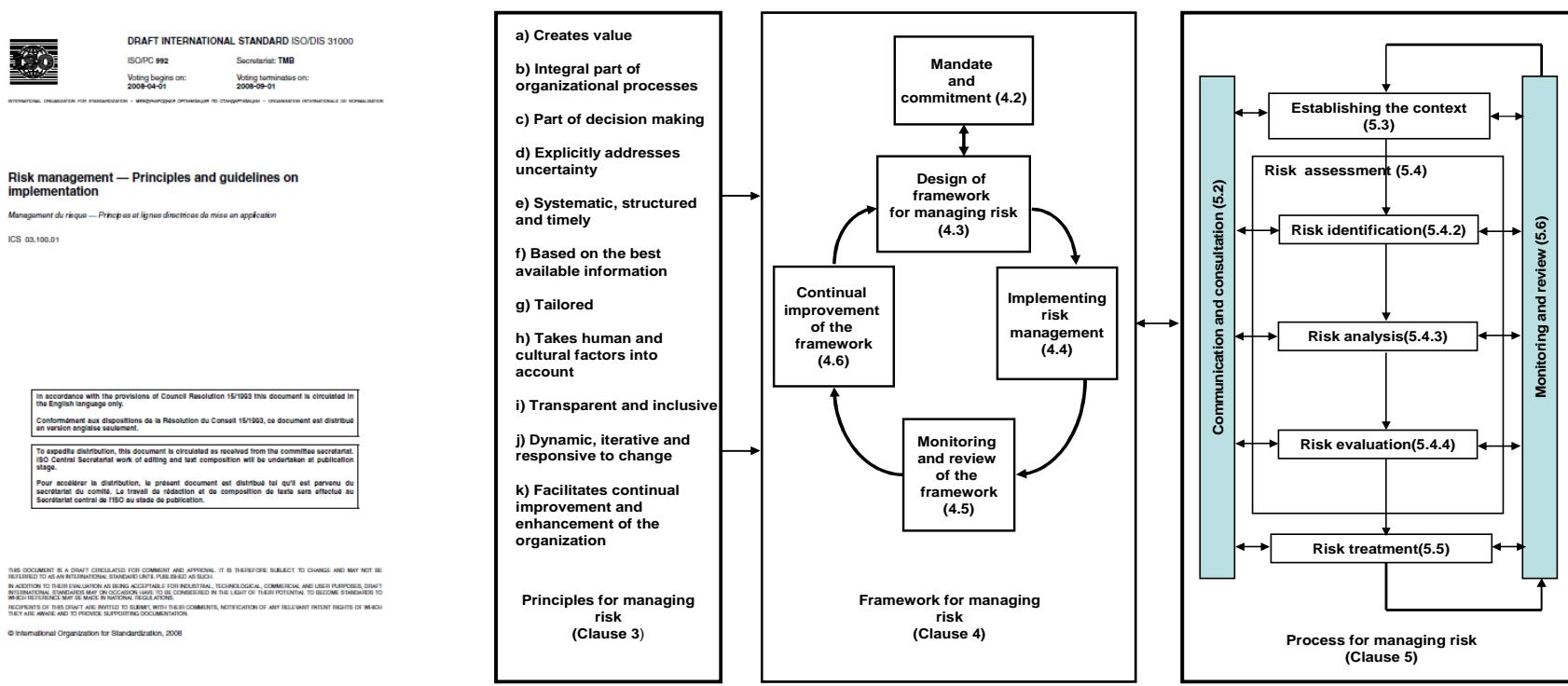
- WP1: Management Systems: Principles, Objectives & Processes
  - Review of Standards
- WP2: Survey of Current Practises
  - ANSP and industry interviews
- WP3: Processes Driving Governance Principles of Management Systems
  - Initial governance principles
- *WP4: Feasibility Study of Governance Principles of Management Systems*
  - *Expansion of principles, based upon WP2 and WP3 findings*
- *WP5: Implementation Study of Governance Principles of Management Systems and Final Guidance for ANSPs*

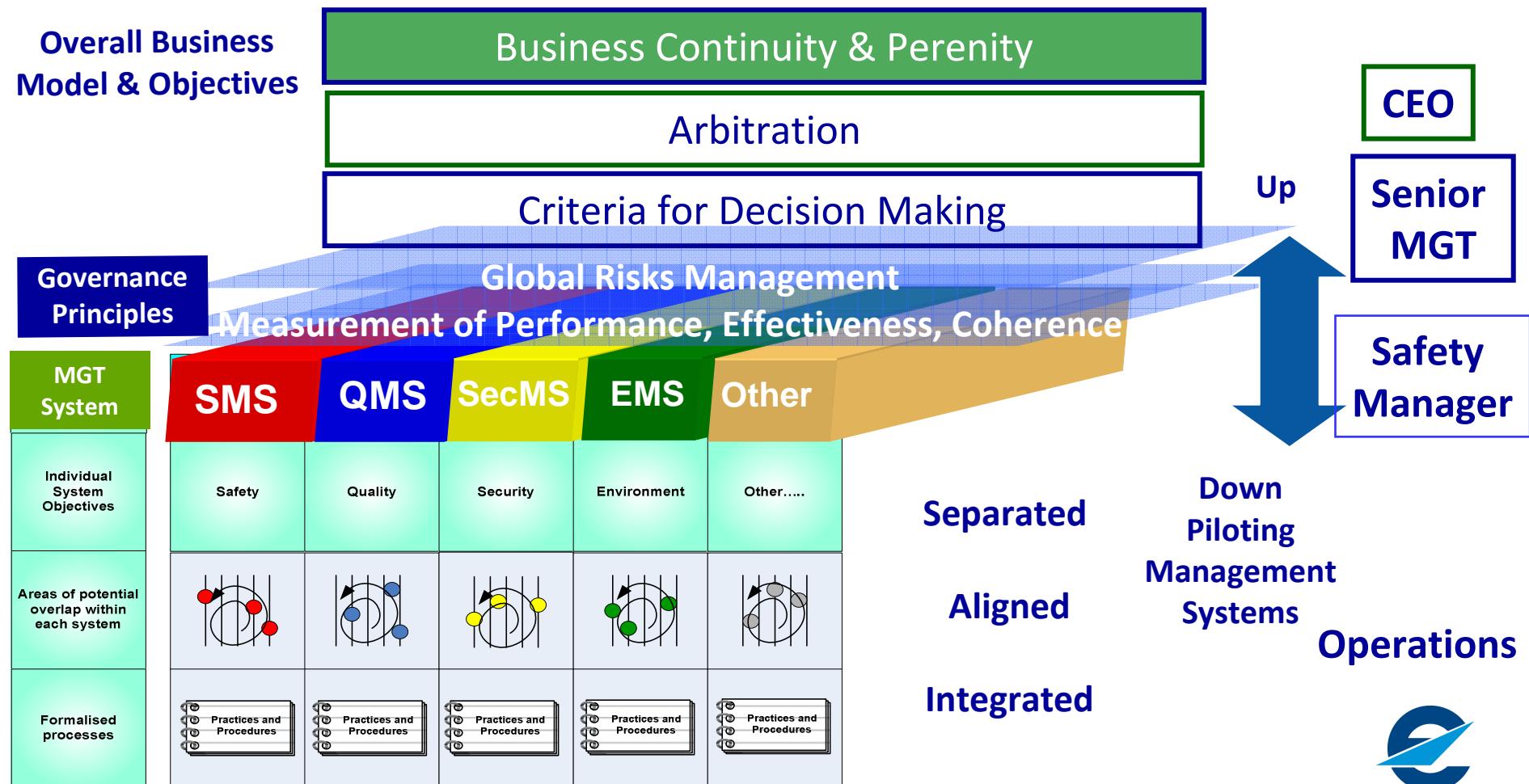




# Global Risk Based Approach

- Emergence of holistic risk management frameworks e.g. ISO 31000 with such principles
  - “Greater control over an organizations growth and development when risk management is applied”

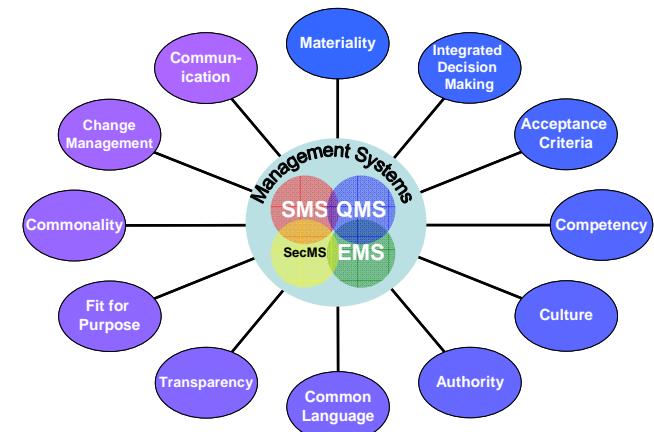






# What are Governance Principles

- Principles directly supporting decision making and reducing any associated conflicts
- *Addressing these areas alone, only limited benefits can be achieved since there are other areas for conflicts within the systems.*
- Addressing “Human Element”
- Addressing “System” Requirements
- Ensuring Systems are Responsive and Dynamic

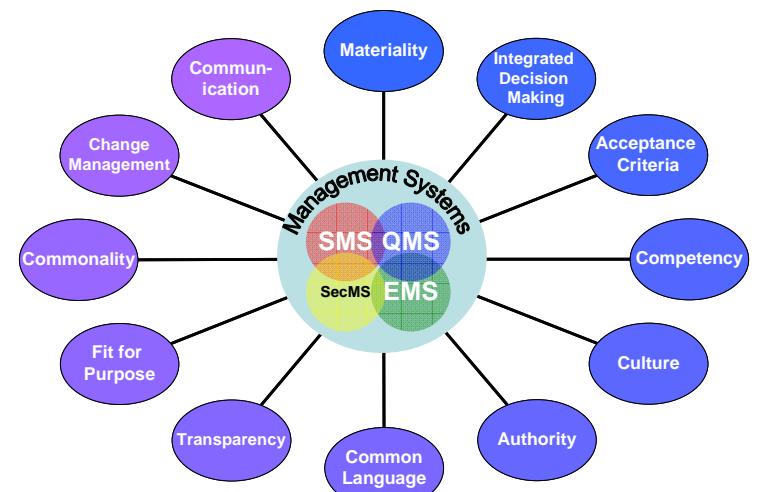


- *An overlay of “best practice” working across multiple management systems.....*
- *Not a Separated Management System - Not a “route to integration”*
- *But a series of principles for improving systems that “fits” existing systems whether .....*
- *No assignment of hierarchy of principles, but some principles are complementary*



# What are Governance Principles

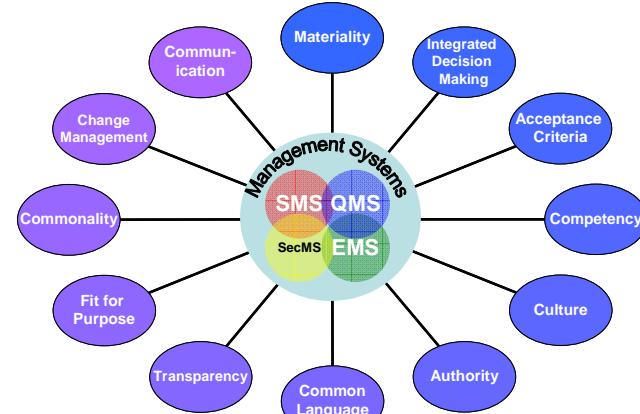
- Governance Principles of Management Systems are a series of Principles to enhance multiple management systems and giving tools for decision making
  - to **manage and reduce** conflicts
  - to **manage** potential overlaps\*
  - to **increase** the overall effectiveness of an organization's system(s)
  - to **create value** by minimizing loss
  - to be an **integral part** of the organizational processes





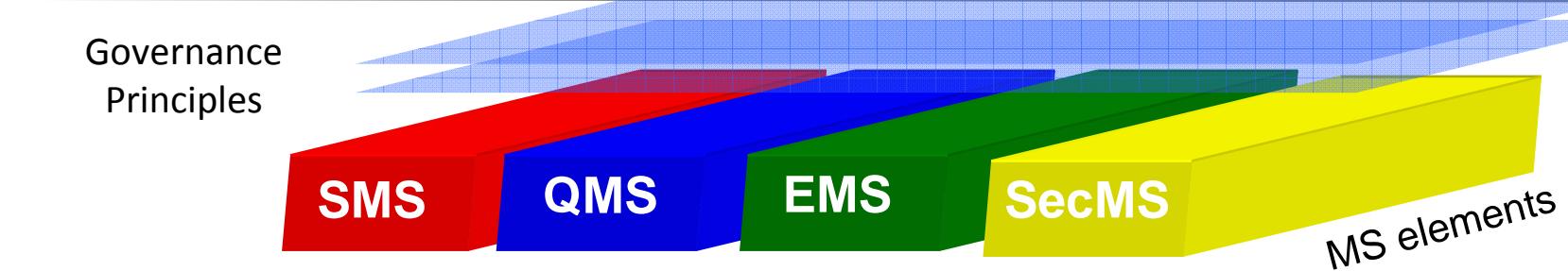
# What are Governance Principles

- Principles directly supporting decision making and removing any associated conflicts
  - Materiality
  - Integrated Decision Making Process
  - Acceptance Criteria.
- Addressing “human element”:
  - Competency
  - Culture
  - Authority
- Addressing “system” requirements
  - Commonality
  - Transparency
  - Common Language
- Ensuring Systems are Responsive and Dynamic
  - Communication
  - Change Management
  - Fit for purpose





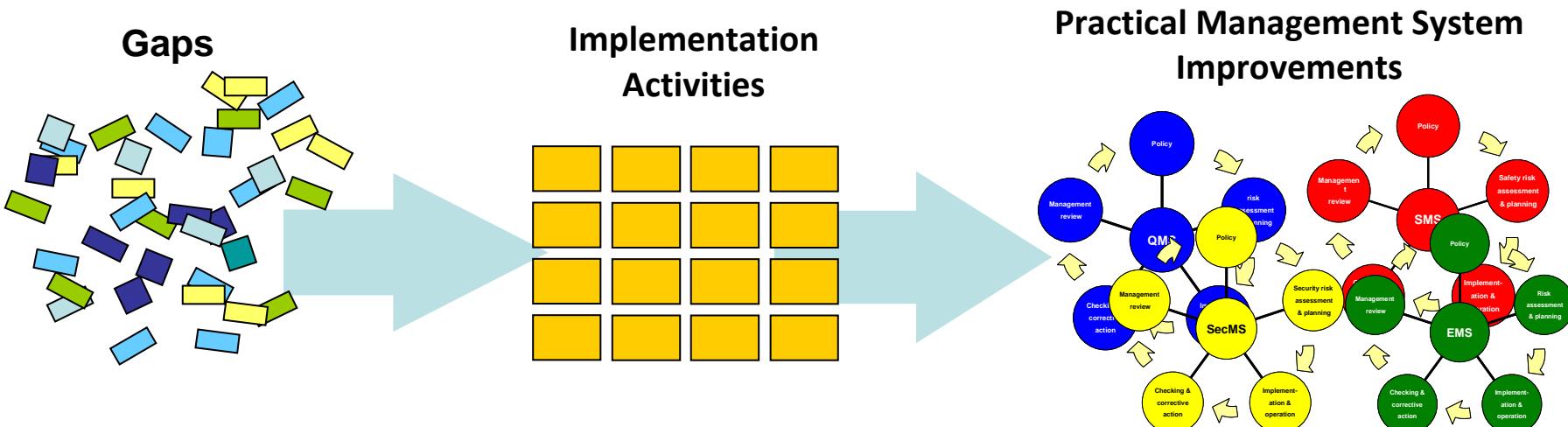
# Implementation of Integrated Decision Making



## Top Mgt. Integrated Decisions



- Top level commitments to integrated decision making process
- Detailed processes laid out
- Outlining how process is to be achieved
- Who is involved in the integrated decision making process
- Ensuring audit function confirms implementation and effectiveness of process
- Top management confirmation of process

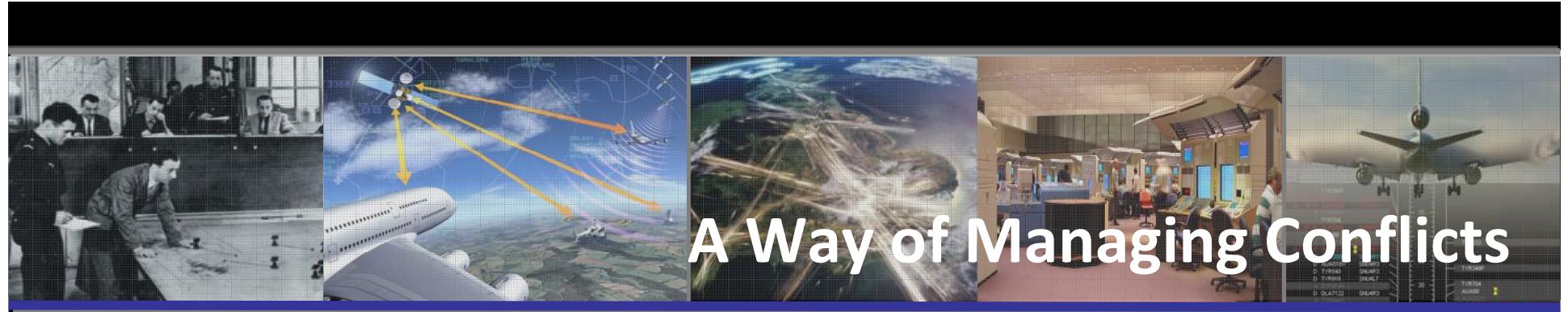


**Gap:** Independent risk assessments, lack of coordinated or common review, not all factors taken into account

**Implementation activity:** Review of how risk assessments are performed, and decisions made based upon them

**Improvement :** Variety of solutions, e.g.

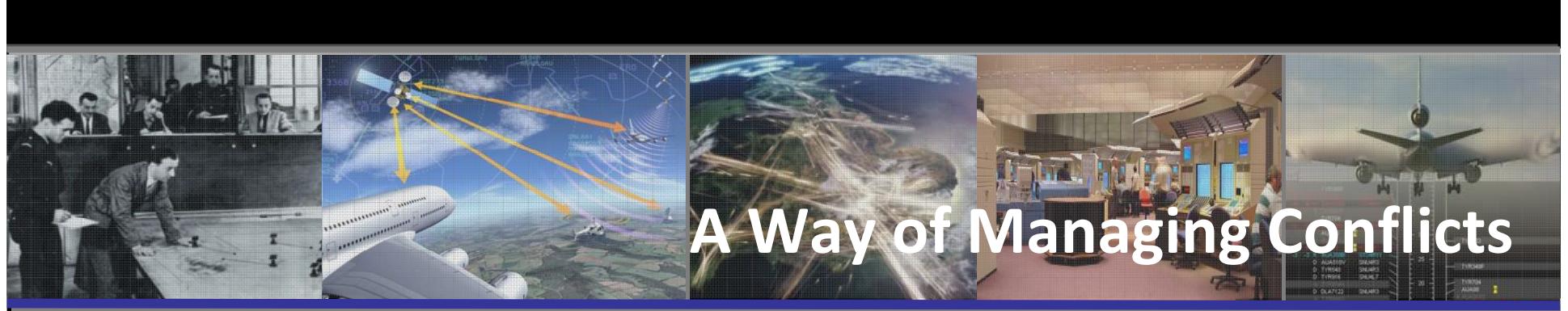
- Fully integrated risk assessment process (systemic approach)
- Common management review of separate assessments (unit safety case?)



## A Way of Managing Conflicts

- Noise vs. Safety
  - crosswind and tailwind operations to major airports
    - **ACCEPTANCE CRITERIA:** *Improves situation by having in place criteria for issues before assessment is complete*
  - Complex departure/ approach routes in TMA to minimise noise, etc.
    - **INTEGRATED DECISION MAKING:** *Process of considering safety and environment (noise) at same stage means that projects won't pass Safety then fail Environmental criteria at the final stages*
- Capacity vs. Environment
  - Increasing use of environmental improvements provides a challenge to maintain capacity in busy airspace
  - **MATERIALITY:** *Better balance of issues, understanding the dynamic between capacity & Environment*
  - **COMMON LANGUAGE:** *Recognizing that CO2 caps and noise limits can impact on "quality"/capacity issues, "ASPECTS" vs "CAPACITY", terminology etc..*

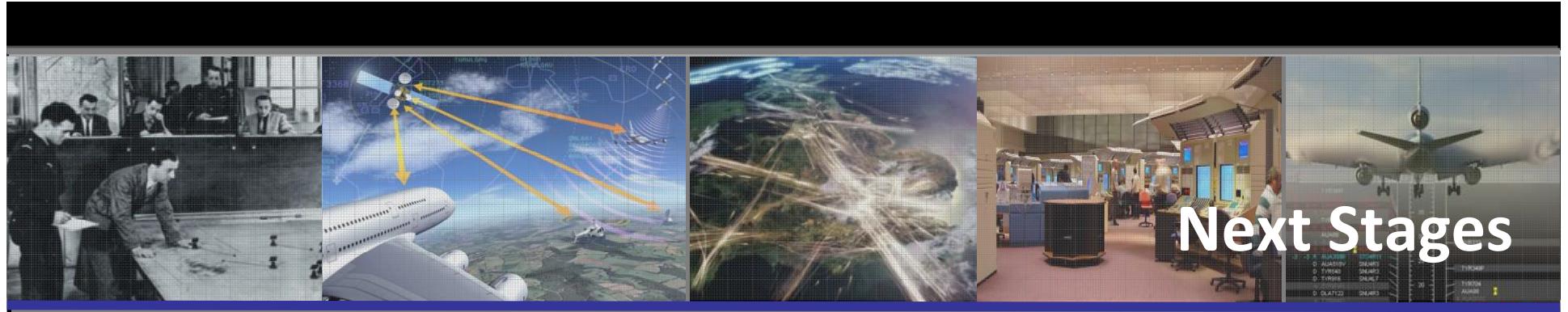




## A Way of Managing Conflicts

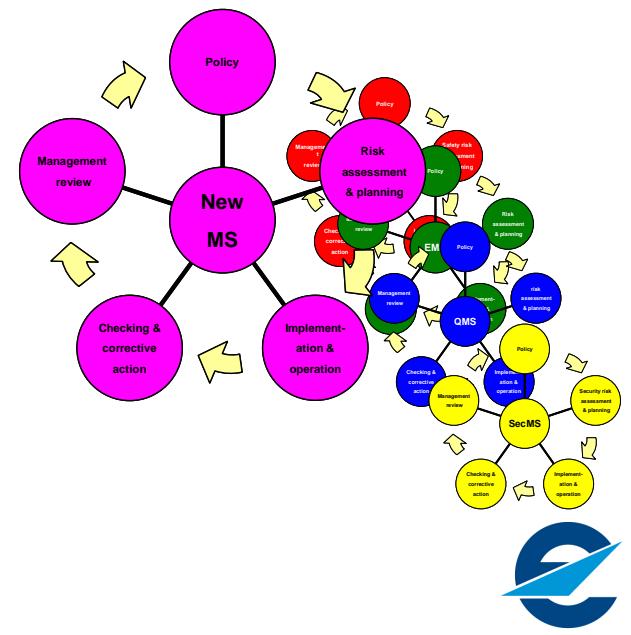
- Resources Allocation between Management Systems

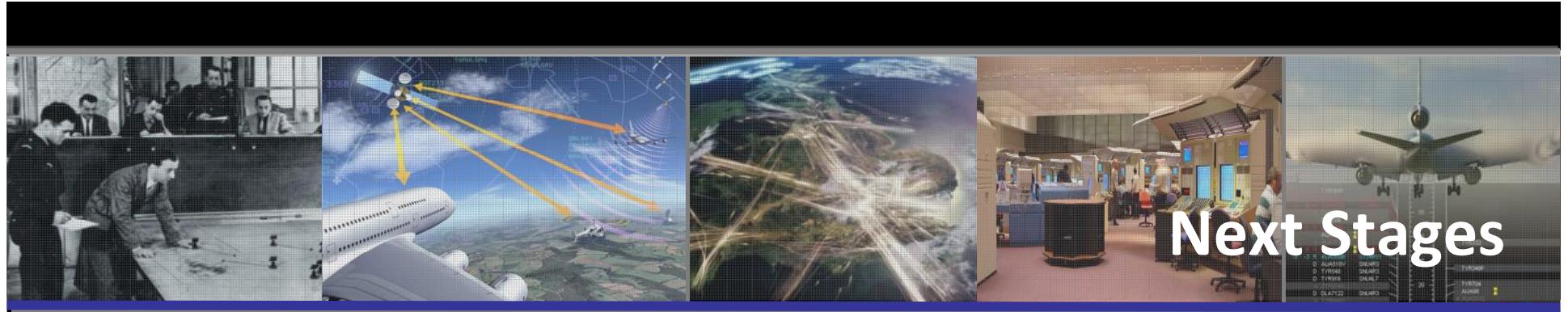
- **Authority:** *Better balance of authority, alignment not only in terms of top-down within a system but also across the system(s) to drive improvement of efficiency and add value*
- **COMMONALITY:** *Utilization of overlaps*



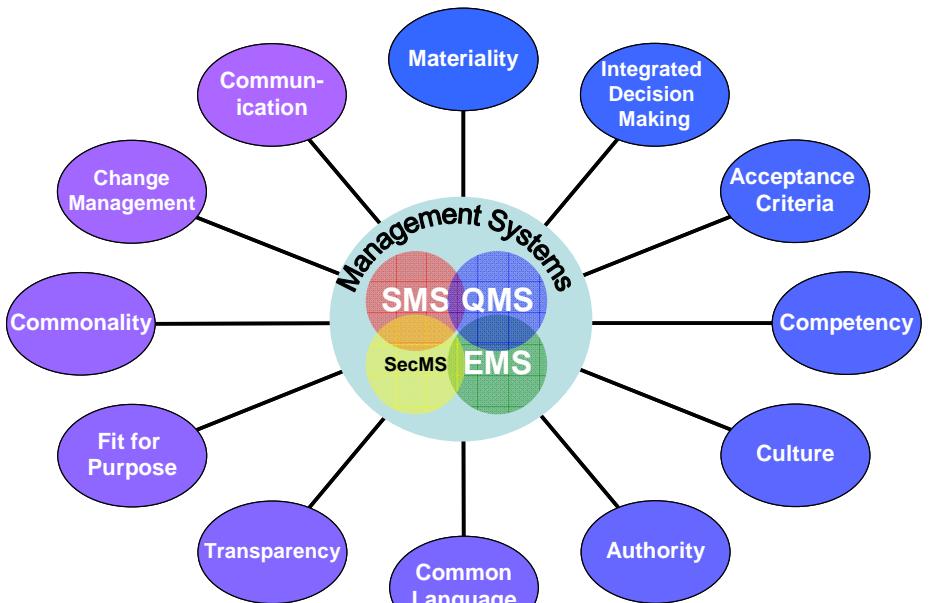
## Next Stages

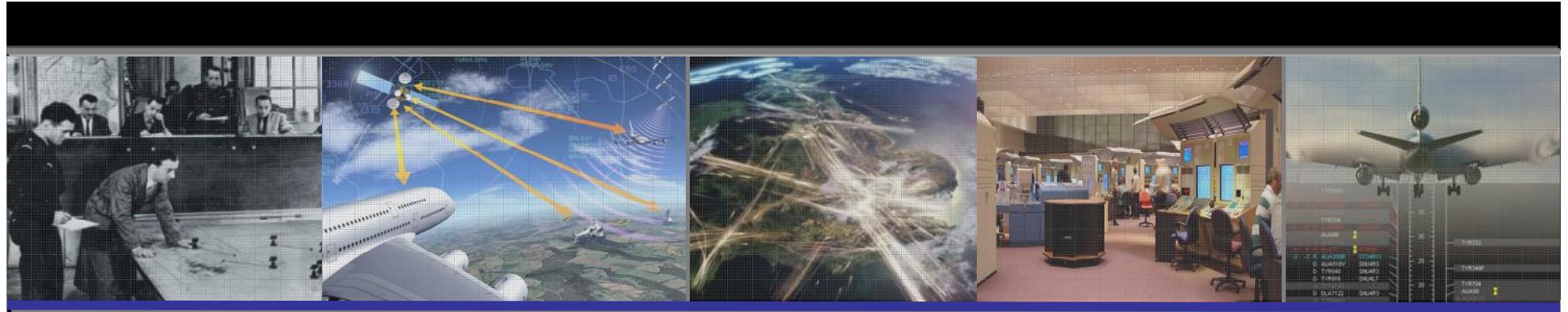
- The governance principles can be used in a variety of ways
- As a support when analysing the efficiencies of current management systems
  - Gap analysis can be performed across all management systems
- Tool to support decision making
- In the development of new management systems to help design how new management systems fit with current processes





- Undertake a ***Pilot Study***
  - Work with candidate ANSPs (at least one small and one medium/big)
  - Guidelines/Tool for Decision Making
  - Confirm benefits of implementation
  - Practical feedback of ease of implementation
- Volunteer ANSPs for Pilot Study?





# Any Questions

