



EUROCONTROL



# Track 1: Short and Mid-Term Improvements to ATM operations

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## More seriously...

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- How can we increase throughput, safety, efficiency and environmental acceptability of airport and en-route operations in the short and mid-term ?
- regulations (separation standards for airport departures)
  - enhanced capabilities (navigation performances, predictability, controllability, N.B. limited in the short term)
  - better dissemination of information (CPDM)
  - better use of available information (decision-support tools, cooperative tools)

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## Short and Mid-Term Improvements to ATM Operations

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### Airport and En-route Improvements

- decision-support tools : variety of approaches, not specific to US or Europe = area for potential cooperation (cross validation ?)
- validation issues : at all stages of development up to implementation (variability, representativity, field involvement...) : emergence of metrics to evaluate conflict probes
- need for a better understanding of complexity and safety aspects

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## Short and Mid-Term Improvements to ATM operations

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### Collaborative Planning and Decision-Making

1. emerges in the US as a TFM enhancement
2. migrates to Europe as a buzzword
3. spreads in both US and Europe as a way of thinking

requires

- clarification of institutional issues (sensitivity of commercial information, security, equity, etc.)
- theoretical background (information flow, support for collaboration, etc.)
- development of new applications

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## Short and Mid-Term Improvements to ATM operations

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- Collaborative Planning and Decision-Making
  - dissemination of information      **Need for US/Europe cooperation**
  - enhancement of information      **cooperation**
  - consideration of new constraints/priorities
  - delegation of decision-making      **More specific solutions**

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## **Short and Mid-Term Improvements to ATM operations**

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**Conclusion : 4 focus areas**

- **Information Management**
- **Validation**
- **Decision-Support Tools**
- **Modeling**