

**EUROCONTROL/FAA**  
**ATM-98 SEMINAR**  
**TRACK TWO: ADVANCED OPERATIONS &**  
**CONCEPTS**



*December 4, 1998*

*Coordinative Policy*  
*Technical: Research Agenda*  
*Joint Efforts*  
*Reference to ATM-97*

***Coordinative Policy***  
***Recommendation***



- *Work to provide a common definition of operational concepts and scenarios that can serve as the basis for empirical and analytic research and development*
- *Establish agreement on sets of parameters, measures and metrics for performance evaluation*
- *Establish policy and practice for information exchange among ATM participants (cf.. privacy, competitive advantage, regulatory de-identification, etc. )*
- *Investigate policy & practice for authority and responsibility in various distributed control, decision making and separation scenarios*

### *Technical : Research Agenda*

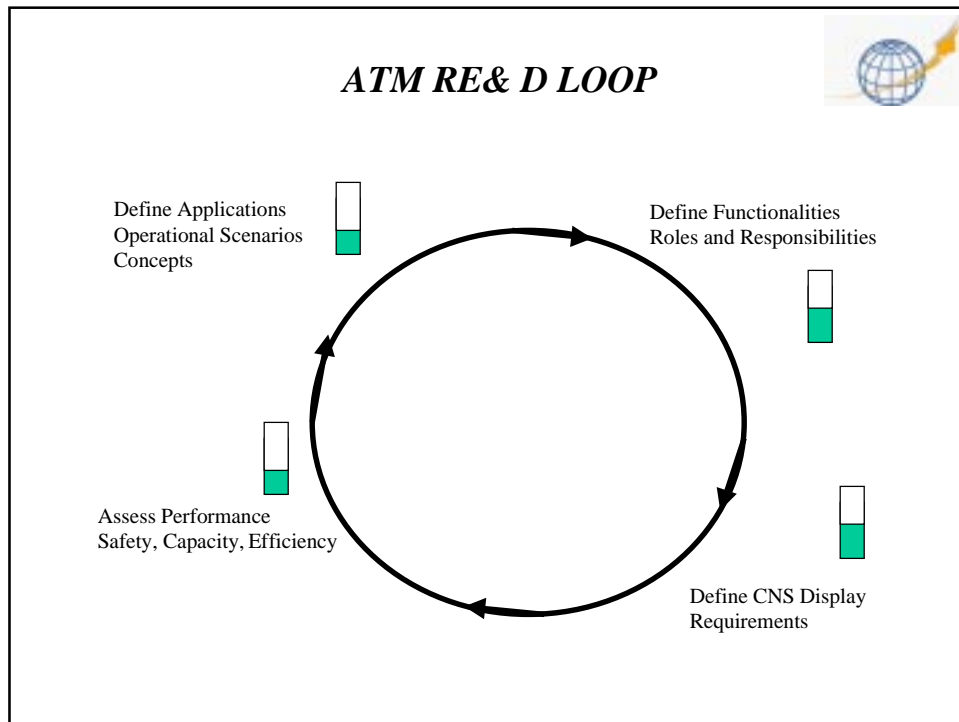


- ***Entering Era of Analytic & Empirical Research***
  - *Reduce Reliability on “beliefs”. Establish data on agreed-upon key research topics*
  - *Link RE&D efforts in two-way information process with European and U.S. regulatory agencies and process*
- ***Methodologies for ATM Research : theory and concurrence are needed on (appropriate use of analyses, simulation, field-test).***
  - *Establishment of accepted validation practice (dependent and independent variable definition etc .-- traffic density)*
  - *Integration of safety, capacity, flexibility, efficiency metrics*

### *Technical : Research Agenda*



- ***Focus on “transition” process***
  - *Near-term > mid-term > far term technology transition and impact plan*
  - *Develop clear paradigm for transition between technology readiness levels and implementation readiness process*
- ***Specific foci from session topic areas:***
  - *CDM: Shared awareness, information dynamics (currency, accuracy, availability), specification of control points and “side-effects” (not envisaged) of information provision (UMM)*
  - *ASAS: wide area of research classes of authority exchange, transition and dynamics in contracts (NRC), priority, optimization , robustness of information and control-- assurance process*



- ### *Joint Efforts*
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- ***Scenarios & OPCONS: share and exchange process & scenarios***
    - *[EMERLAD project, CENA, MITRE and NASA ]*
  - ***Human Factors: establish information densities, usability, acceptability, workload, safety metrics & methods. Collaborative research***
    - *[NASA, NLR, FREER, ??]*
  - ***Cockpit/ATC tools/display development: coordination and tool exchange***
    - *[EEC, CENA, NASA, FAA]*
  - ***Safety measures and definitions***
    - *[NLR, NASA, CENA]*



*Recommendations & Status*

*ATM-97*

*ATM 98*

- *CONTINUE  
FAA/EUROCONTROL  
COLLABORATION*
- *TRY TO ARRIVE AT  
COMMON STANDARDS*
- *FORM SPECIFIC JOINT  
PROJECT TEAMS*
- *START FUNDAMENTAL  
SAFETY RESEARCH*

- *CONTINUE & EXPAND  
(SPECIFIC RESRCH  
EXCH.)*
- *FORMULATE  
METHODS, SCENARIOS,  
& CONCEPTS*
- *TEAMS FORMED,  
SPECIFIC EXPANSIONS  
PROPOSED*
- *STILL REQUIRED FROM  
MODELS & METHODS  
STANDPOINT*