WAKENET EU 2015: Turning Research into Standards and Implementations

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Since last Wakenet EU:

- **RECAT-EU**: implementation prepared at Paris CDG
- **TBS**: implementation prepared at London Heathrow
- **New heavy in operations**: Airbus A350
What did we learn from research?

- Unique Knowledge on Wake Turbulence has been developed
  - Vortex characteristics and behaviour
  - in the context of flight / ATM operations
  - Data collections
  - Safety issues
  - Models and simulations with ‘users’ in the loop

- Integration of the different ‘pieces’ is key
Demonstrate safety and acceptability?

Liaising Stakeholders’ needs and perspectives

From Pre-operations

Definition of Changes
Safety Criteria

Safe by design?

Measurements - Modelling
Analysis

WAKENET Europe 2015
Demonstrate safety and acceptability?

Liaising Stakeholders’ needs and perspectives

To Operations

Designers
- Change
- Specification
- Risk model

Safety Regulator

Safe?

Users
- Validation
- Implementation
- Training
- Monitoring
How to assemble the pieces and verify?

- Understand changes proposed
  - To standards (PANS ATM)
  - Operational issues, constraints

- Capture interactions between key factors
  - Scenarios and indicators

- Risk Indicators
  - Traceability from basic data to top indicators
  - Reproducibility

- Assess local variations
Evolving the Regulatory Framework

- Voluntary as a start
  - Practical
  - But risk of fragmentation

- Regional Standards
  - Ensure harmonised approach to changes
  - Establish common requirements and methods

- Global Standards
  - Common provisions for all types of operations
  - Common references – built from regional developments
What’s next for Research?

- EU research is performing but:
  - Multiple programmes - projects
  - Safety-oriented research: < 5% of funding
  - No smooth transition to products and operations

- EASA recognises the role of research for new / evolving aviation standards
  - Building a common framework for safety-oriented research is proposed – aligned with EU priorities
  - Allowing better networking between research actors
Questions ?