

# EUROCAE Symposium & 54<sup>th</sup> General Assembly



**London, 27-28 April 2017**

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# EUROCAE Symposium

## SESSION 7: SYSTEM WIDE INFORMATION MANAGEMENT

Moderator: Dennis HART, EUROCONTROL

Speakers: Ruben FLOHR, SESAR JU  
Christian ACCARDO, ENAV  
Stephane DUBET, DSNA  
Siegfred SCHAFFER, DFS



# EUROCAE Symposium

Dennis HART  
EUROCONTROL

# System Wide Information Management



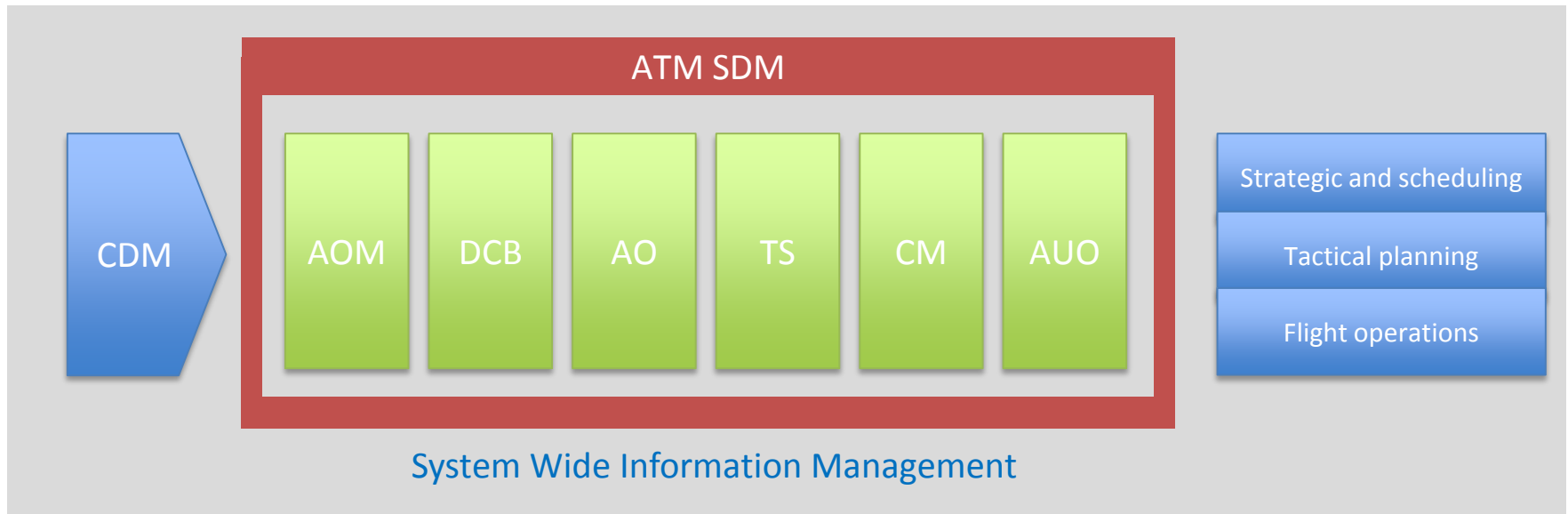
Dennis Hart

Head of System Wide Information Management Unit  
EUROCONTROL





# Global ATM Concept



- CDM – Collaborative decision making
- ATM SDM – ATM Service delivery management
- AOM – Airspace organization and management
- DCB – Demand/capacity balancing
- AO – Aerodrome operations
- TS – Traffic synchronization

- CM – Conflict management
  - \* *Strategic conflict management*
  - \* *Separation provision (SEP)*
  - \* *Collision avoidance*
- AUO – Airspace user operations
- TBO – Trajectory based operations

# Interoperability

Logical

Technical



Organisation A

Organisation B

Real World System



Real World System



Organisational Alignment



Process Alignment



Semantic Alignment



Syntax (XML,...)



Interaction (SOAP, REST, OGC...)



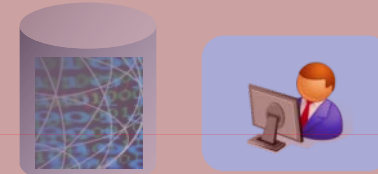
Transport (HTTP, TCP/IP,...)



Information System



Information System



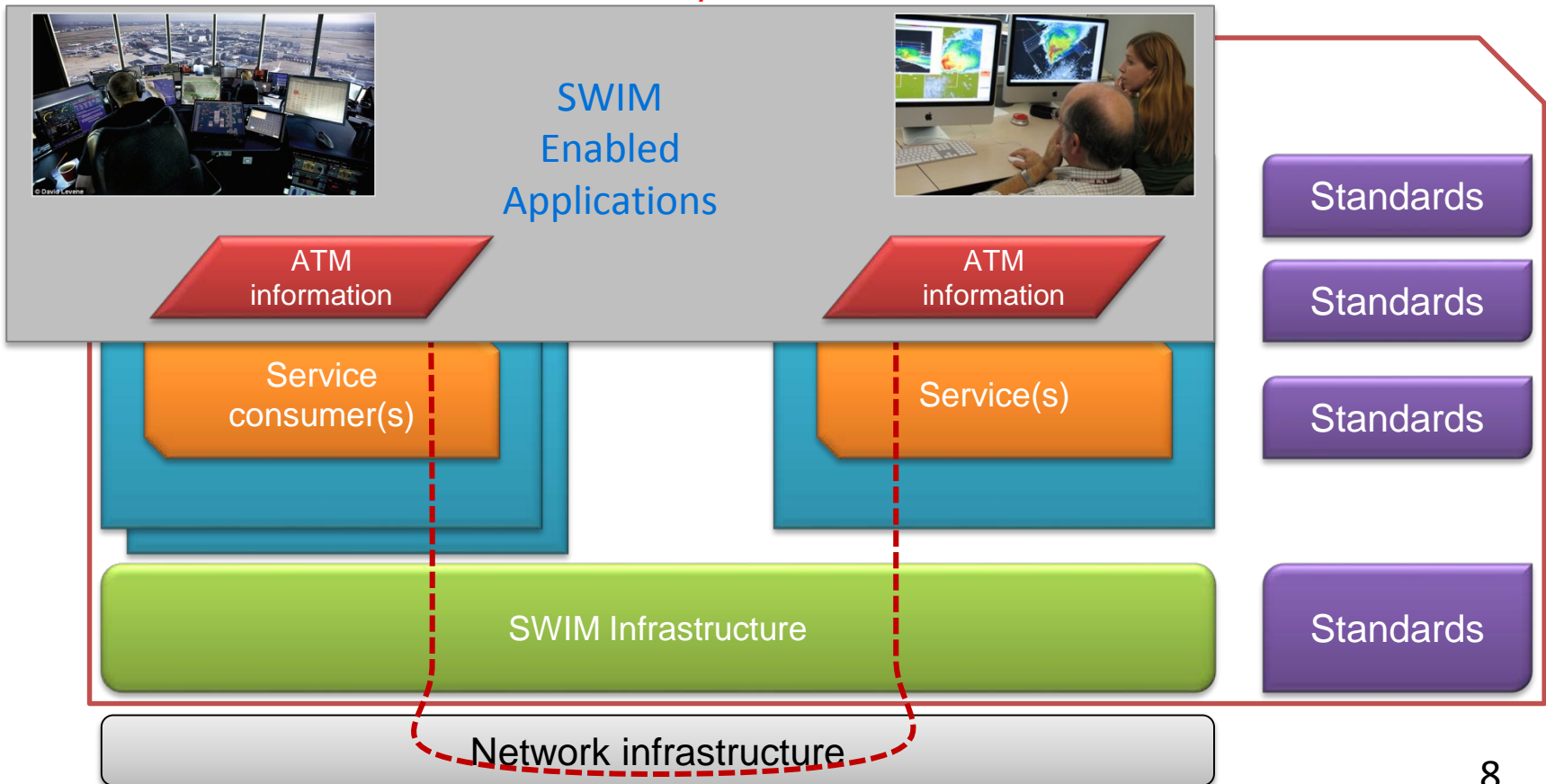
**SCOPE OF SWIM**



# SWIM definition

SWIM is not (just) a set of services, but rather the future way of service development

SWIM consists of *standards, infrastructure and governance* enabling the management of *ATM information* and its exchange between *qualified parties* via *interoperable services*.







# Characteristics

## Easy access to information

- Multiple ATM stakeholders
- Offer and consume ATM information from each other
- Easy to connect

## Provider and consumers build on Trust

- All involved parties can be trusted (authorized entities only)
- Exchange mechanism can be trusted (secured, reliable, on-time)
- No abuse of information (adequate access control)

## Cost reduction in ATM evolution

- Cost proportional to required performance level
- Future changes shall be faster and cheaper

# Benefits



## Business perspective

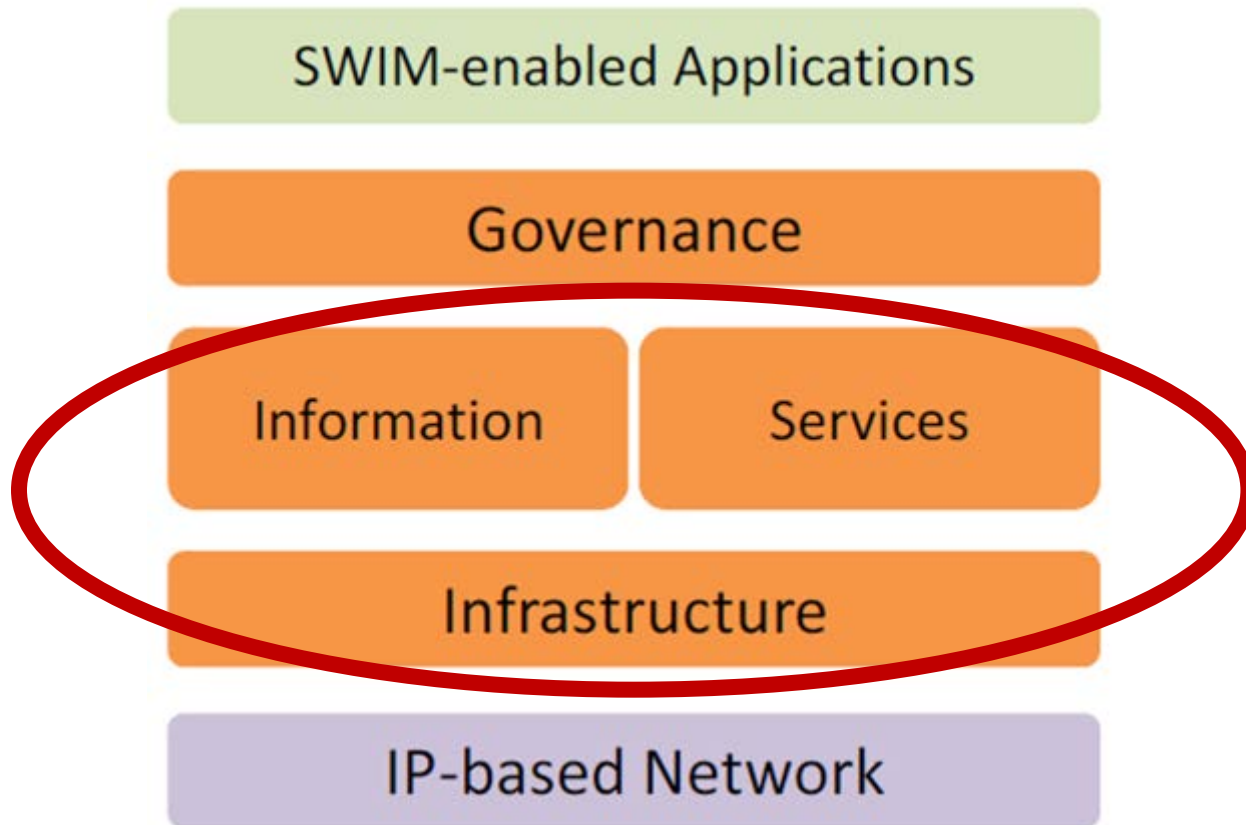
- Agility in future evolution
- Flexibility in global uptake
- Global interoperability, common methods and standards
- Cost efficiency by service oriented architecture
- Secured information

## Operational perspective

- Enables ASBUs (XMAN, A-CDM, FF-ICE, TBO, ..)
- The right information at the right time (filtering, alerting, visualization)

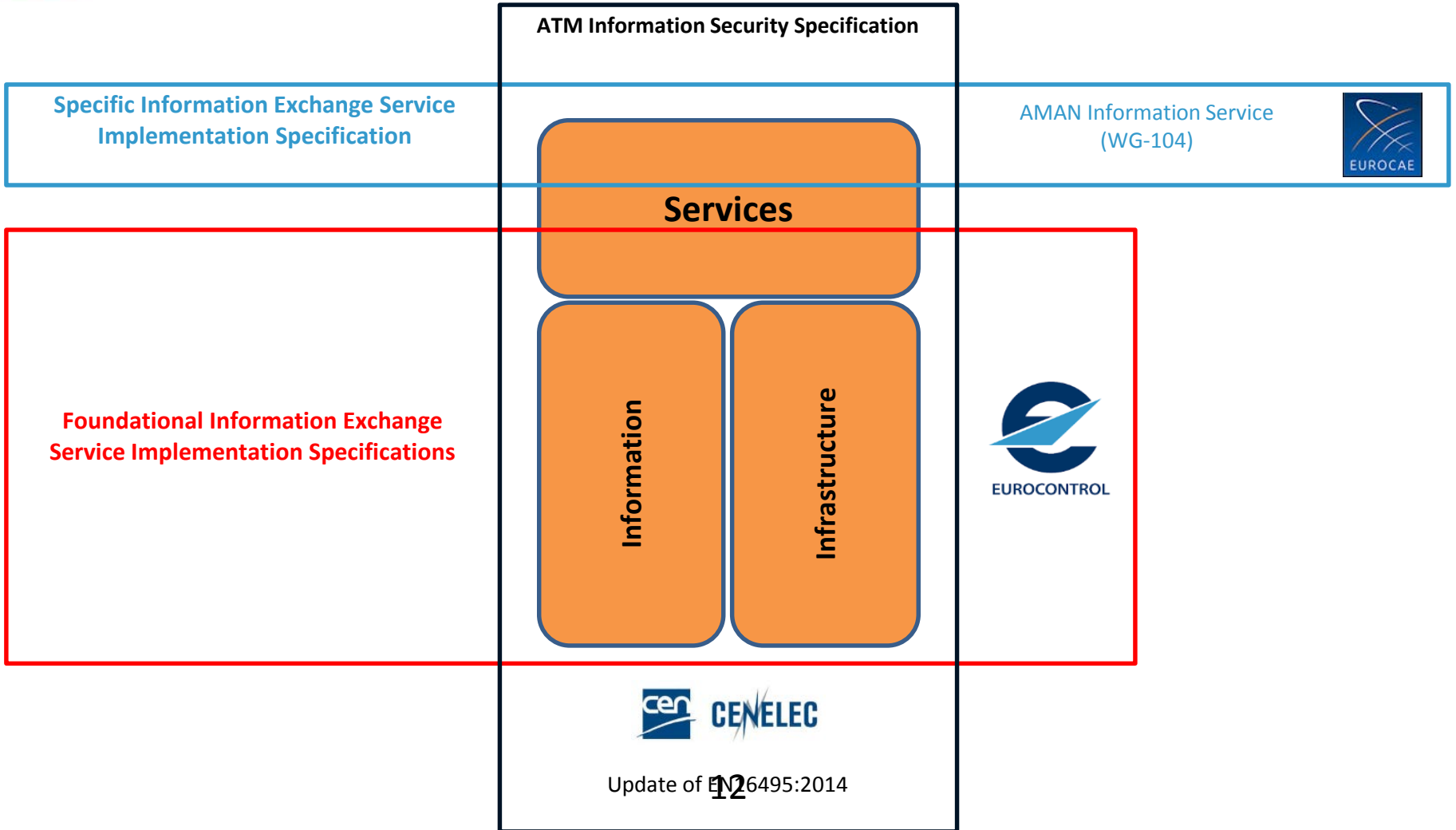


# Where do SWIM Specifications (Standardisation) come into play





# Specifications under development





# WG-104 Deliverables

## Work Programme

- Prioritised list of Services for future standardisation

## Concept for service standardising

- „SWIM service covering Extended horizon AMAN coordination“ dealing with AMAN SWIM upstream service

## Guidelines

- Guidance Material how to standardise future services

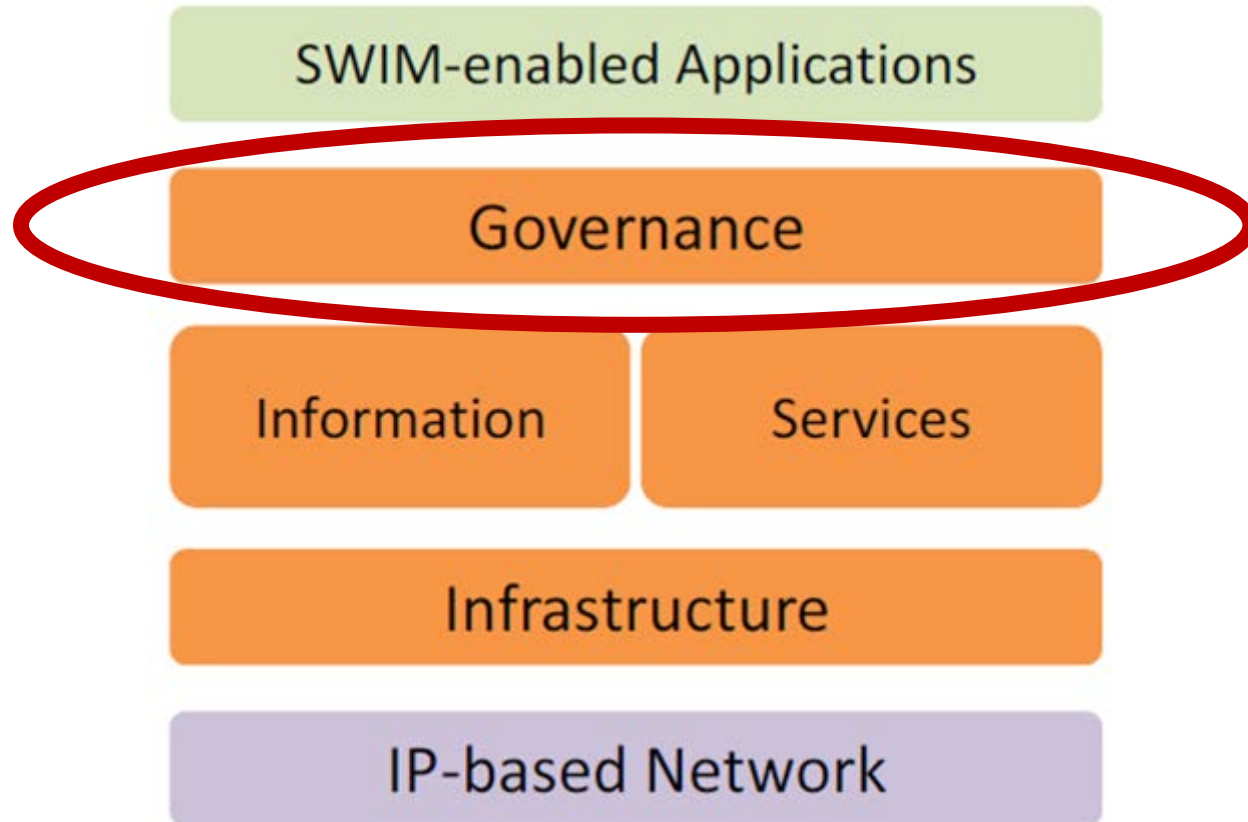
## Lessons Learnt

- Description of the pitfalls and the problems which came up during the standardisation of the AMAN service





# SWIM Governance





# Governance, SESAR 1 Conclusions

- ✈ *Consistent management, cohesive policies, guidance, processes and decision rights for a given area of responsibility*
- ✈ SWIM Governance shall :
  - ✈ continuously monitor SWIM elements (eg standards) to ensure a stable operation, interoperability and controlled evolution of SWIM
  - ✈ be based on an organisational framework (governance structures) that is transparent, representative of all stakeholders and adapted to the SWIM specificities



# Panel



- **Siggi Schaefer (DFS)**  
*chair EUROCAE WG-104*  
The WG-104 perspective on service standardisation
- **Stéphane Dubet (DSNA)**  
*coordinator INEA/CEF SWIM Governance project*  
The Governance perspective of SWIM
- **Christian Accardo (ENAV)**  
*member EUROCAE WG-104*  
The ANSP business needs for EUROCAE service standardisation
- **Ruben Flohr (SJU)**  
*member EUROCAE WG-104*  
The SWIM R&D perspective



# Questions and answers





# EUROCAE Symposium

Closing Keynote  
EUROCAE Council Chairperson

David HAWKEN  
NATS





# What a great event!

- CAA
- EC
- Eurocontrol
- SESAR Deployment
- Performance Based Regulation
- General Aviation
- UAS - Regulatory
- PBN
- Datalink
- SAE
- Euro Cockpit Assoc
- UAS - Technologies
- SWIM





# Making it all possible

- Our sponsors
- Speakers
- Moderators
- Secretariat
- Royal Aeronautical Society
- Laura King, our photographer
- The Hotel
- You!

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# EUROCAE – Looking to the future

We are living in exciting times!

- Uncertainty in some countries
- Pace of technology change & opportunity
- New airspace users

But core priorities remain:

- Safety
- Interoperability
- Efficiency
- Innovation
- Risk



# EUROCAE – Looking to the future

Creating the right standards are essential

- The consequences of not getting it right are high: safety; wasted effort; loss of interoperability; increased costs; delay to benefits.

Eurocae as important now as has ever been:

- Non-political
- Consensus based outputs
- Global co-operation

Equipped to support you, as members, in the important standardisation work you perform:

- Great Secretariat team
- New meeting rooms
- Easy access to standards for members via website



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