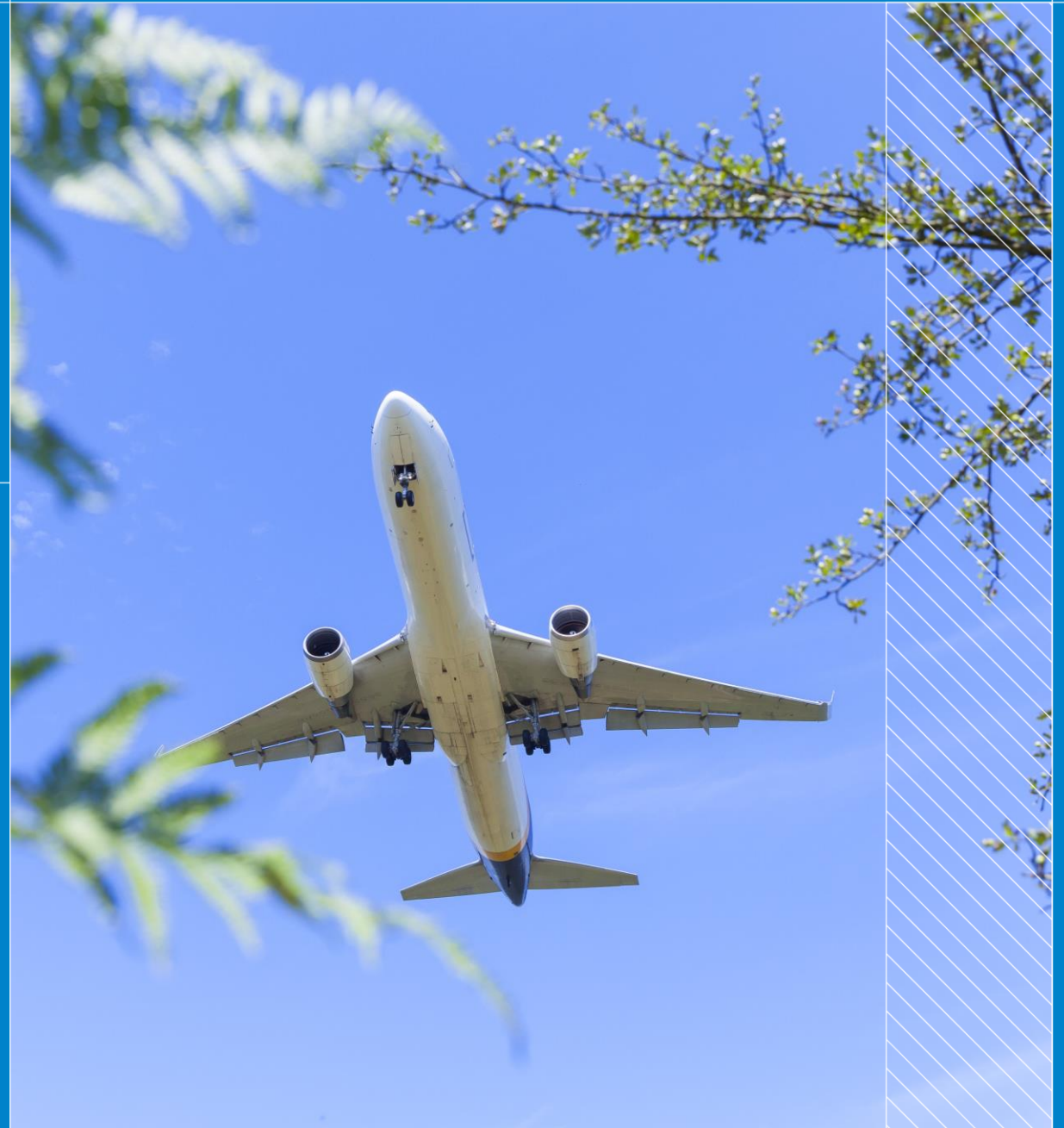


# Innovation at EASA

Dominique Roland  
Head of Policy,  
Innovation and  
Knowledge Department



# Innovative projects, airplanes...

**CERTIFIED**





# Innovative projects, UAS (drones)...



# Innovation topics

- ❖ Electric and hybrid propulsion
- ❖ Artificial intelligence / Advanced automation
- ❖ Urban mobility
- ❖ Drones
- ❖ Hydrogen
- ❖ Dual use civil/military – Opt-ins (State a/c, police)
- ❖ Cybersecurity
- ❖ Reduced crew operations
- ❖ Supersonic aircraft
- ❖ Health
- ❖ Digitalisation – Digital certification



# ...& related challenges

How to adapt the regulatory framework:

- ❖ Product certification (Special conditions?)
- ❖ EASA OPS
- ❖ EASA FCL
- ❖ EASA PART M
- ❖ Aerodrome regulations
- ❖ Airspace (UAS)
- ❖ ...

In a timely manner?

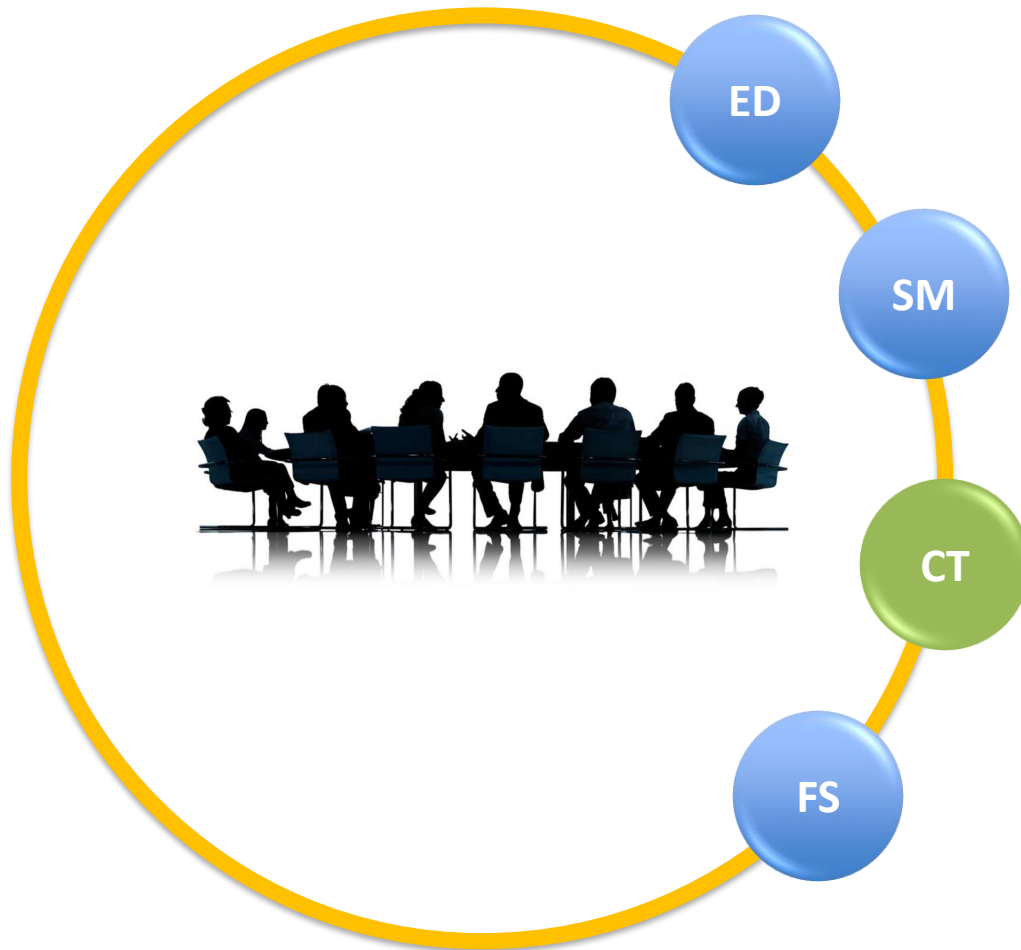


# EASA internal adaptation

- ❖ ERC (EASA Research Committee) has been merged with the Innovation Cell in 2021 to become the RIC (Research & Innovation Committee).
- ❖ Chaired by SM Director, Luc Tytgat, CT is represented by David Solar and the Technical Line is represented by Alain Leroy (Chief Engineer).
- ❖ New committees: RIC (Research & Innovation), Innovation Network.
- ❖ New cross-Directorates programmes: Drone, Environmental strategy programme, AI roadmap.



# EASA external actions



- ❖ Participation to research projects (Mahepa, Cabin Air Quality, Fire risks caused by PED, Helicopter underwater escape, Machine learning application approval...\*)
- ❖ Supporting industry well before the certification phase (TAC, IPC)
- ❖ Supporting industry in the normal way (certification projects on innovative products)
- ❖ Developing policy/Regulatory material to enable certification (SC eVTOL etc. )

[\\*Research projects](#)



# Destination Future Proof

## Innovation in Certification

- ❖ Destination Future proof is an Agency project aiming at modernising and improving our processes. Certification is one of the first domain contributing to the project.
- ❖ In this context, we have prepared an action plan aiming at improving our certification processes, to better cope with the expectations of the stakeholders when they ask EASA to certify innovative products.

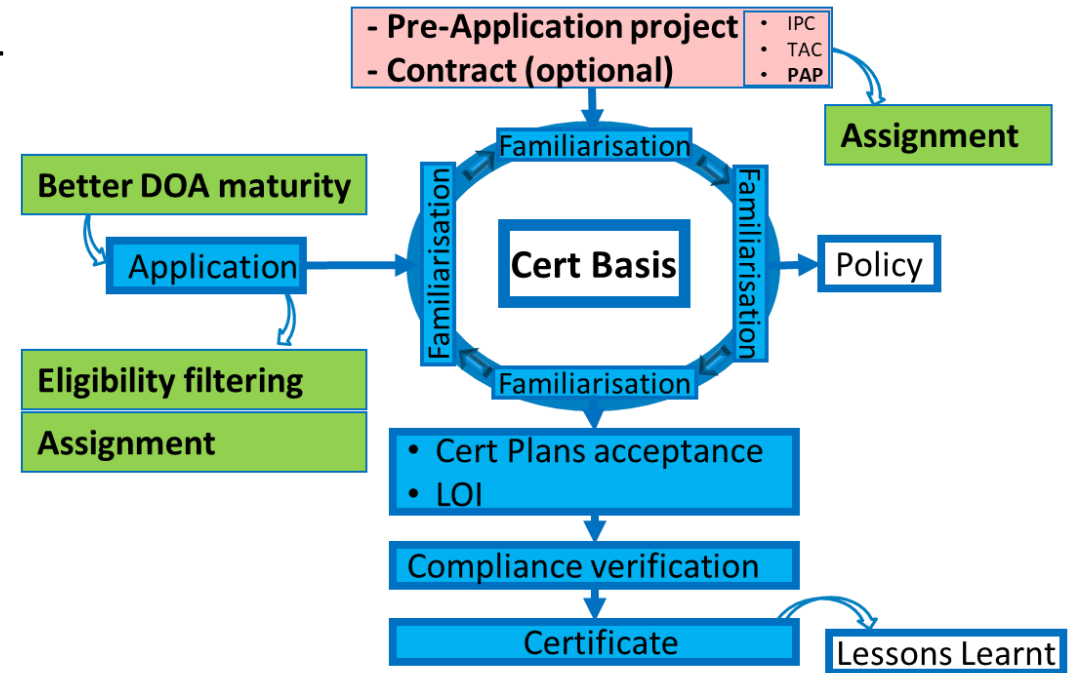




# Destination Future Proof

## Pre-Application Project

- ❖ One of the key proposal is to implement a “pre-application project” in order to identify cross domain what are the requirements and regulations questioned by the innovative aspects of the project.
- ❖ Problems (including operational aspects) should be identified and way forward agreed before application, shortening the time needed for the acceptance of the certification programme and certification basis.



# Take-away

- ❖ EASA is actually reviewing its processes in order to adapt to the challenges created by innovation.
- ❖ Innovation is not only impacting the certification process, but also continuing airworthiness and all related operational domains.
- ❖ The impact of the transition for all stakeholders (authorities, industry) during the next 10 years, will be significant, and will certainly impose a change of mindset.





# THANK YOU

