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EASA & Thales Partnering for AI certification

FLY AI webinar – 24 February 2021



EASA & Thales partnership

2018

➤ **Nov. 2018:** Innovation Partnership Contract

2019

➤ **Aug. 2019:** Kick-off of EUROCAE WG-114

2020

➤ **Feb. 2020:** EASA AI Roadmap 1.0

➤ **Sep. 2020:** Participation of EASA to the DEEL Working Group

2021



November 2018: First Innovation Partnership Contract (IPC)

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FlytX for Business Jet
Crew Centric Cockpit
Simple / Optimal usability / Safer
Improved understanding /decision-making



Workload reduction

Virtual Assistant SOLO based on AI
to support pilots in the routine tasks
through suggestions,
to provide assistance in decision-making.

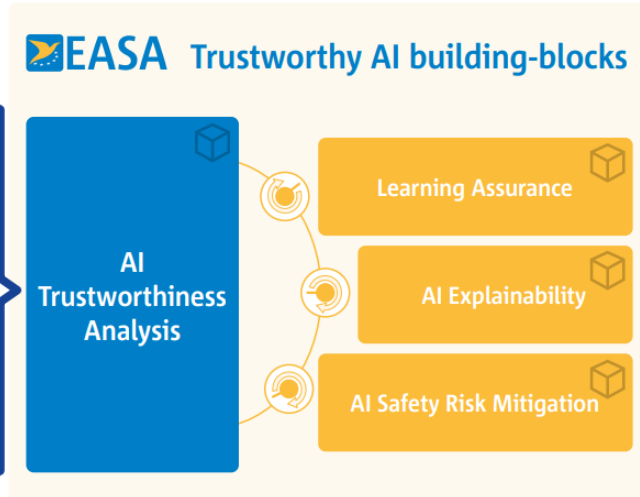
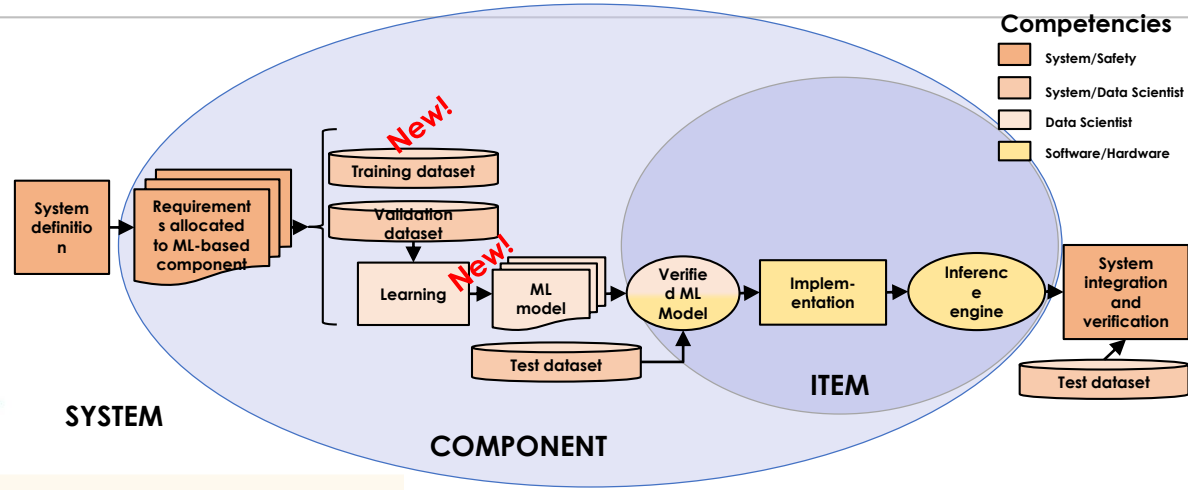
Optimization of Operations

**Native & seamless
integration of open-world
via Connectivity**



**EASA and Thales analyzed together the main regulatory gaps
raised by this innovative cockpit concept**

August 2019: Kick-off of EUROCAE WG-114

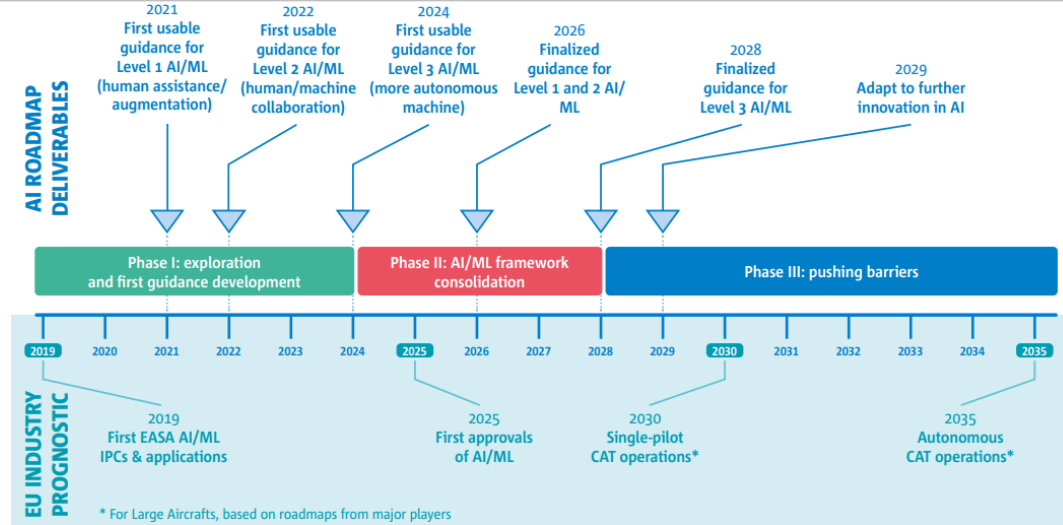
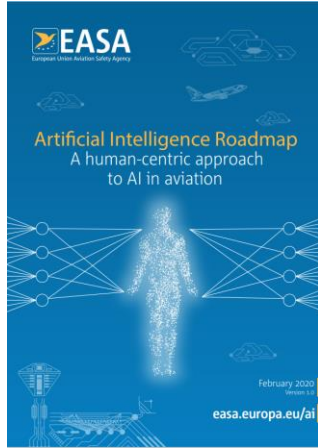


Within WG-114, EASA and Thales share their ideas on the future development assurance framework for AI certification



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February 2020: Publication of EASA AI Roadmap 1.0



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Roadmap presented at the Bourget Paris Air Show in 2019

EASA and Thales roadmaps are fully aligned



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September 2020: Participation of EASA to the DEEL working group

The DEEL Working Group

- **DEpendable and Explainable Learning**
- Team of **60 people**, including academic researchers, data scientists and engineers specialized in operational safety and certification
- Located in **Toulouse and Québec**
- Objective: **solve scientific challenges** raised by industrial partners.

Example of research areas:

- What is the **number of tests** needed to reach a given confidence level?
- **Explainability**: what approaches are relevant for safety-critical system?
- How to **monitor Machine Learning** at runtime?



EASA and Thales share scientific knowledge through the DEEL working group

Why we need to partner?

- **IPC:** Identify and share the certification challenges as early as possible
- **Roadmap:** Ensure an EASA action plan and timeline, consistent with industry needs and prognostics
- **WG-114:** Build a common understanding of the certification objectives and develop industry standards compatible with future regulatory framework.
- **WG DEEL:** Share knowledge to progress in a consistent manner and take advantage of state-of-the-art AI research results