

# VTOL Symposium 2020:

## Update on EASA AI Roadmap Implementation

Prepared by the EASA AI project team

November 2020



**Guillaume Soudain – EASA Software Senior Expert / AI Project Manager**



# EASA organisation for innovation

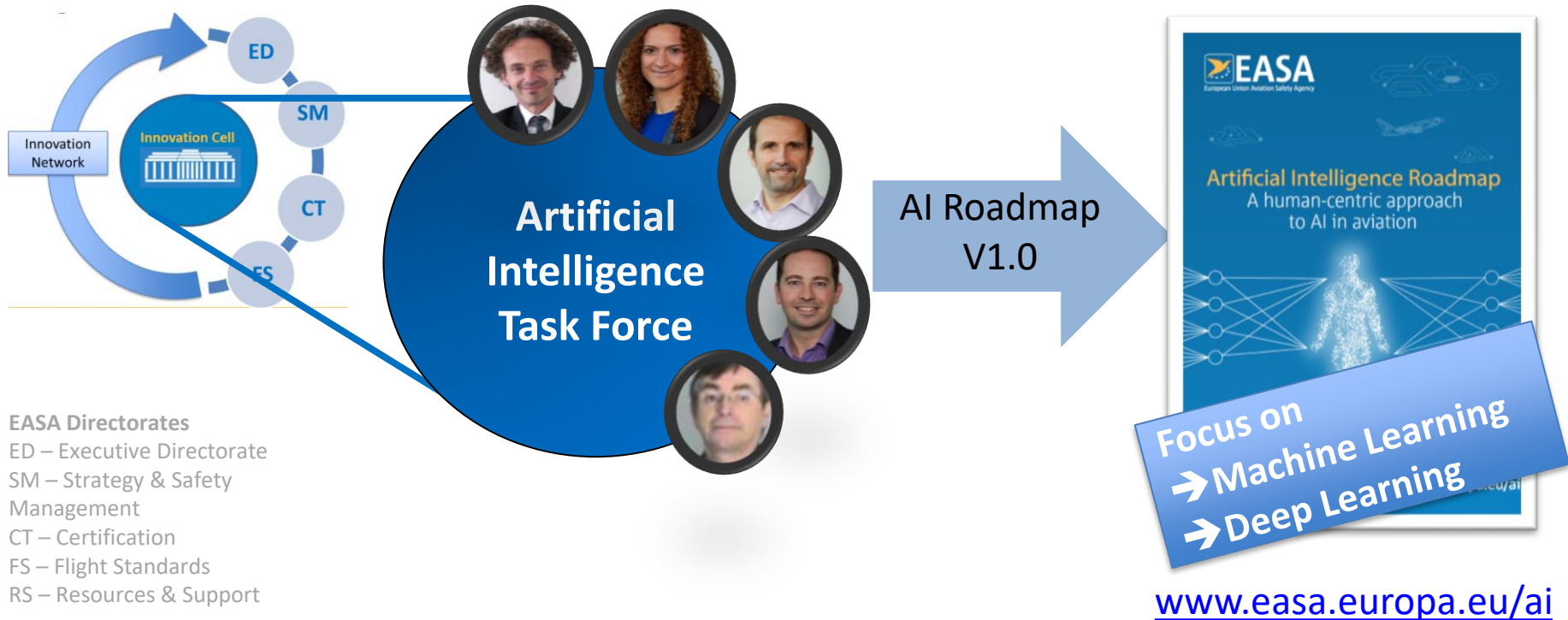
## The EASA innovation network



**Alain Leroy – Principal Advisor to the EASA Certification Director**



# AI as first key topic for our innovation network



## EASA Directorates

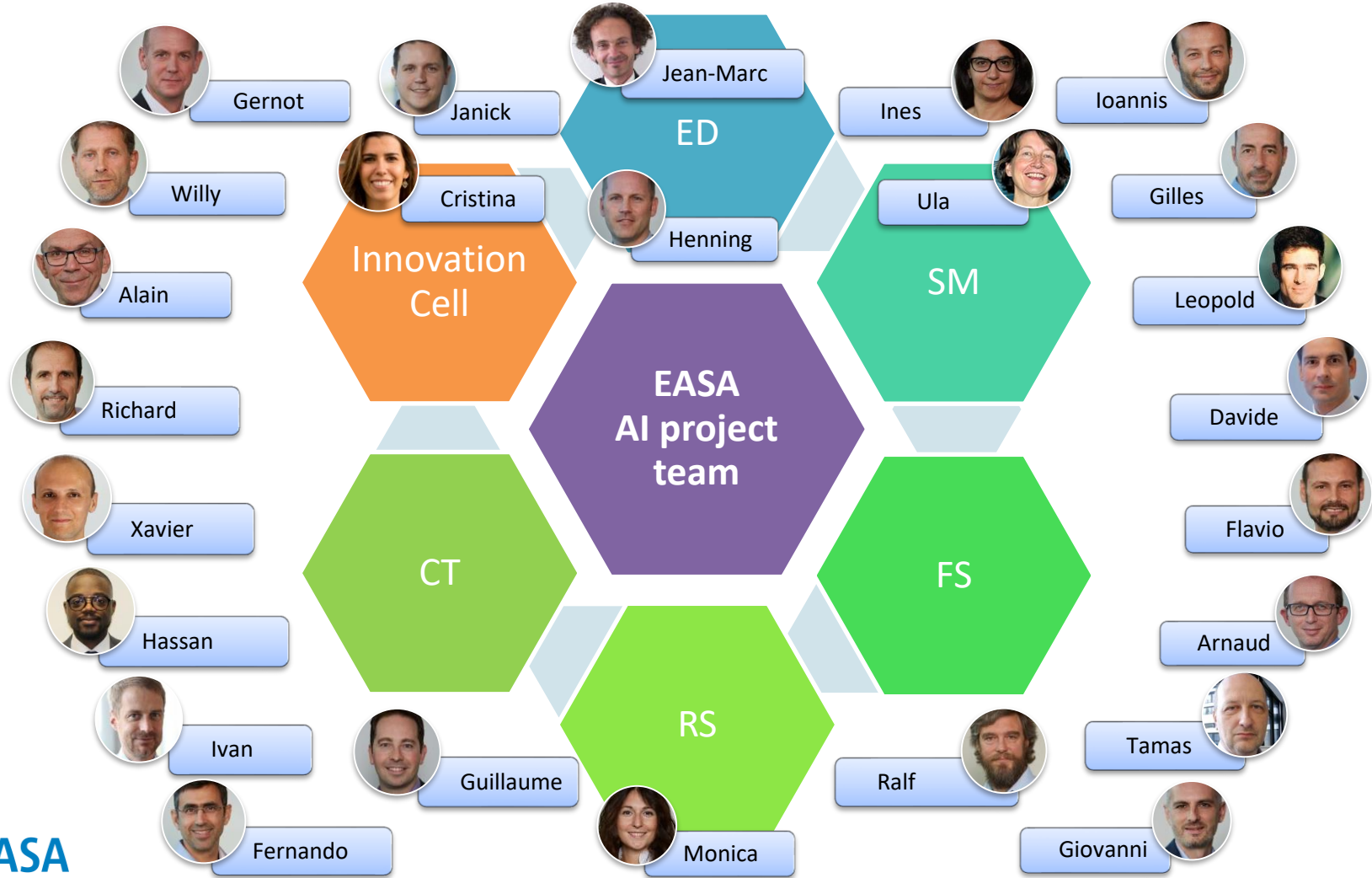
ED – Executive Directorate

SM – Strategy & Safety  
Management

CT – Certification

FS – Flight Standards

RS – Resources & Support



# EASA AI Roadmap overview

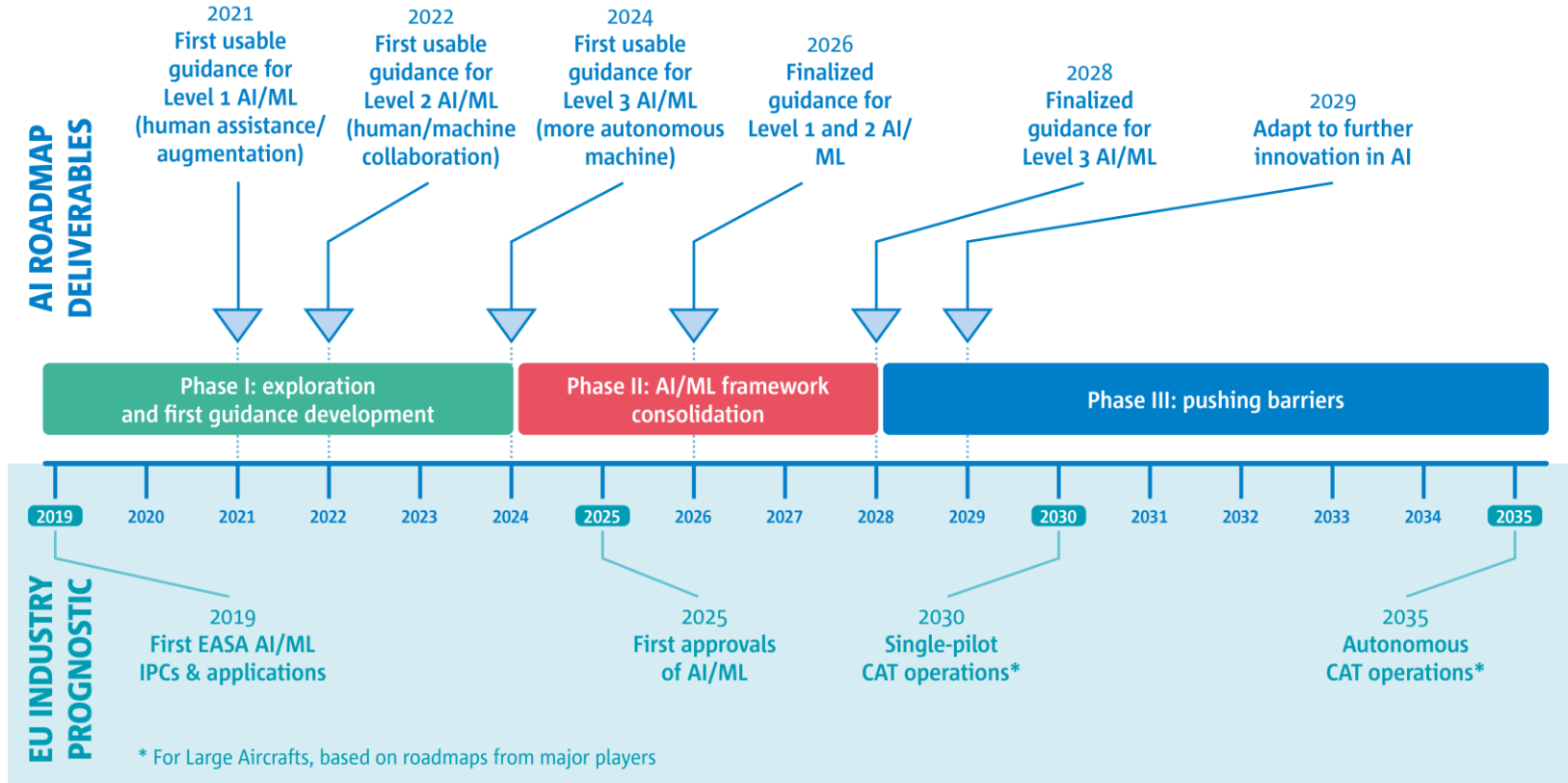
**A human-centric approach to  
AI in aviation**



**Alain Leroy – Principal Advisor to the EASA Certification Director**



# EASA AI Roadmap timeframe and milestones



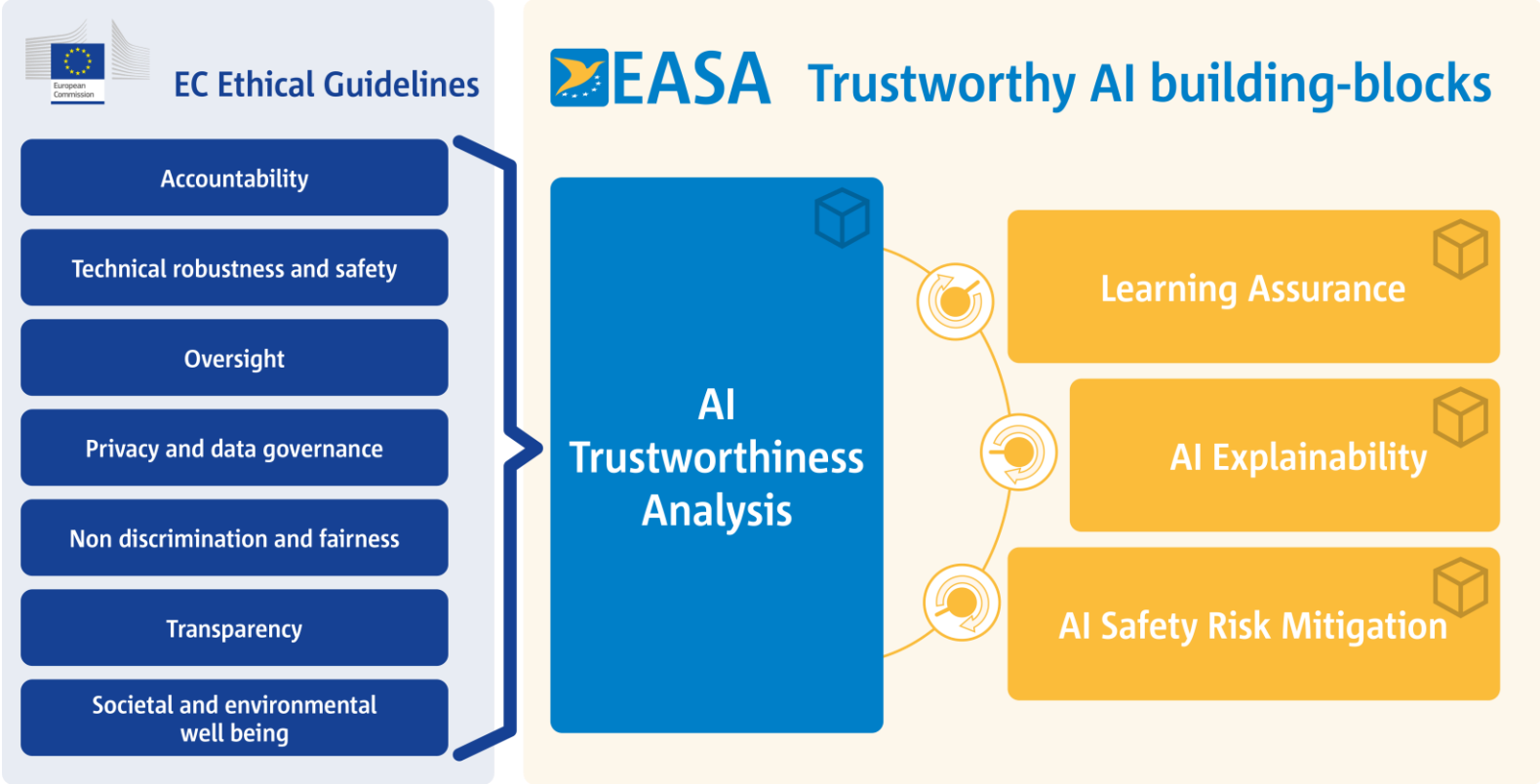
# AI Trustworthiness

**A driving concept**



**Guillaume Soudain – EASA Software Senior Expert / AI Project Manager**

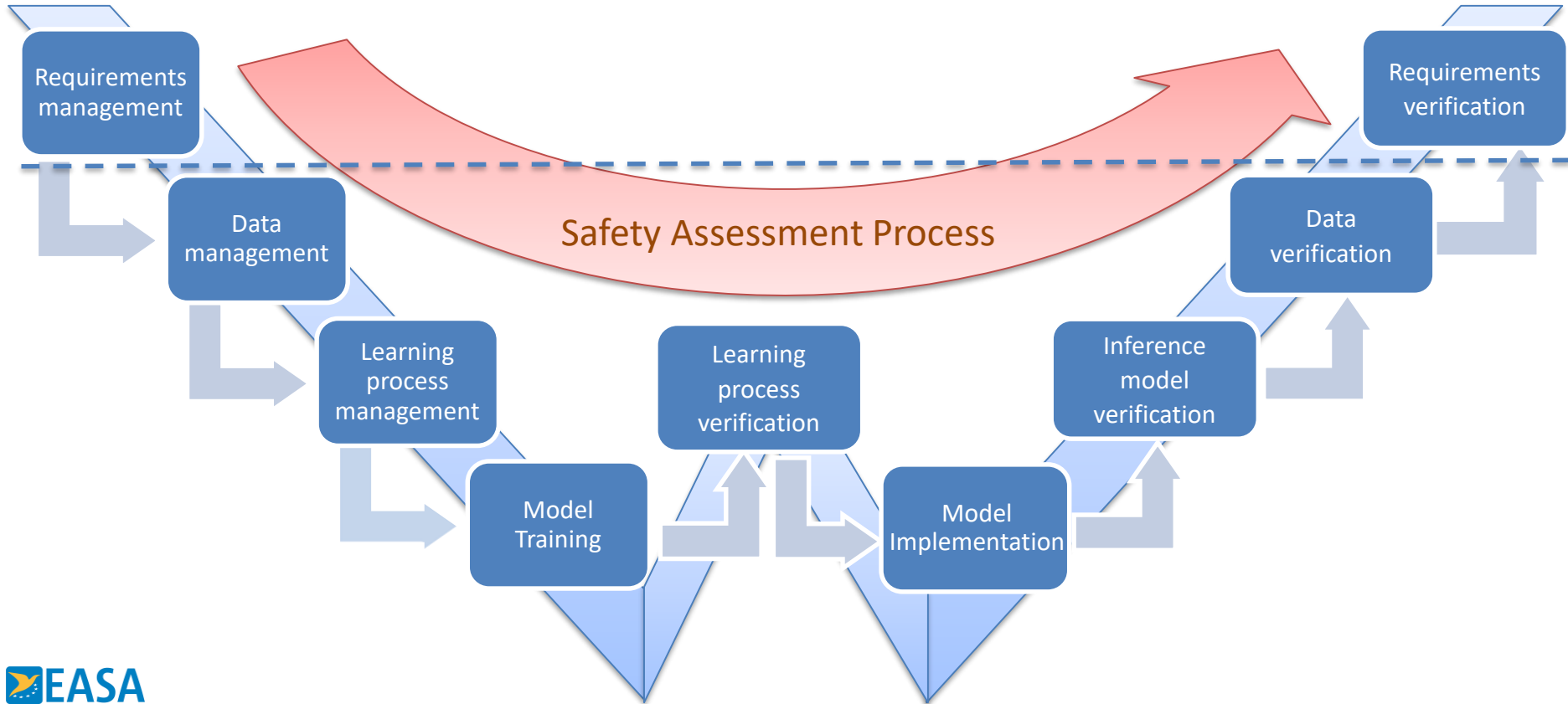
# AI Roadmap building blocks



# Learning Assurance : W-shaped Process

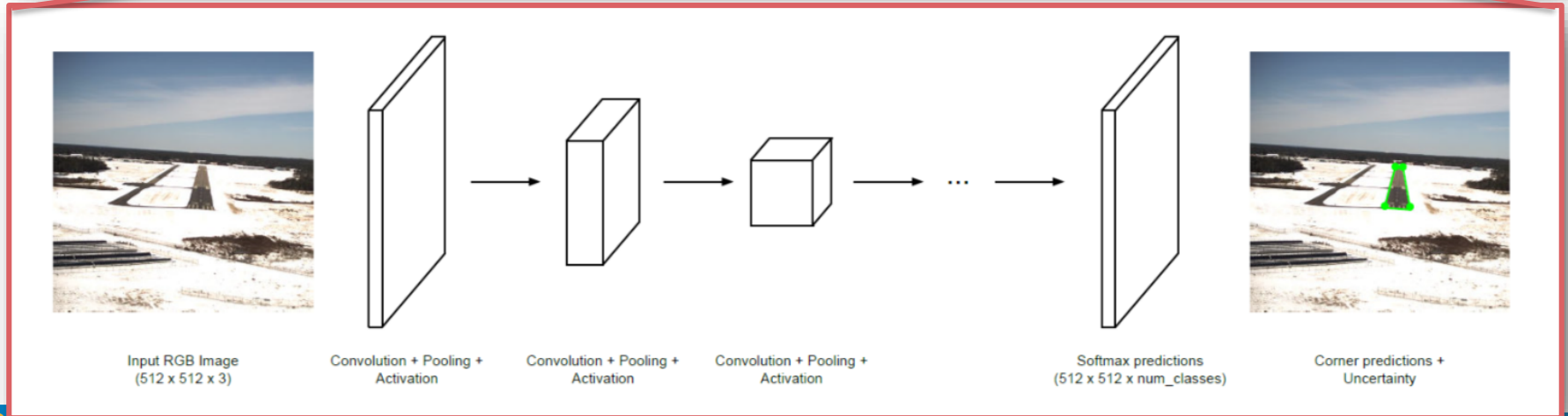
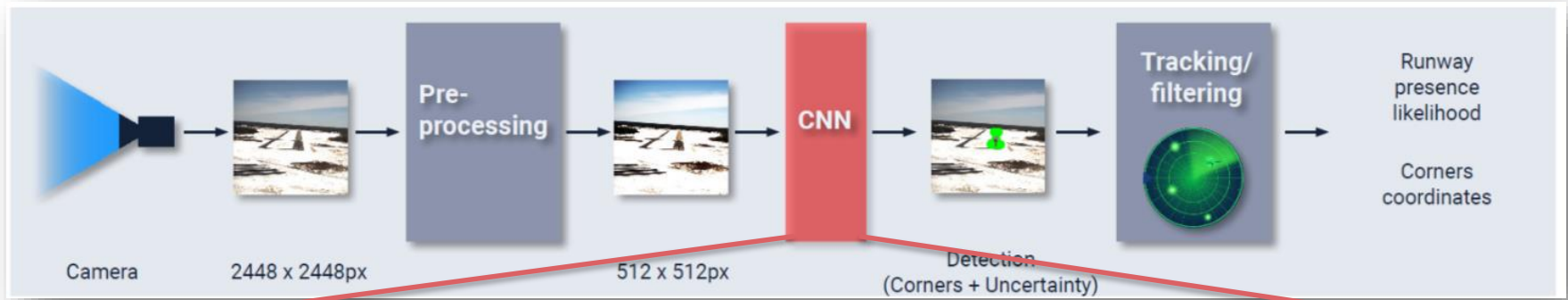
**How do we ensure that a Machine Learning application will behave as intended?**

# Learning Assurance : W-shaped Process



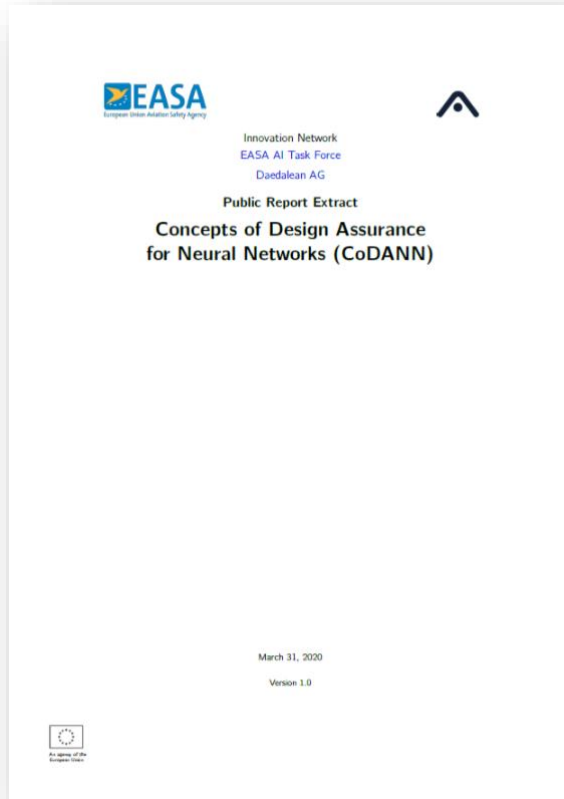
**Xavier Henriquel – EASA Safety Assessment Expert**

# Learning Assurance: CoDANN IPC Use Case





# Learning Assurance: CoDANN IPC Report



Generalisation guarantee is a crucial characteristic of the Learning Assurance concept.

Traditional **Safety Assessment** methods are compatible with the use of NNs, with some adaptations.

# So where are we now...

## ... and where are we going?



**Guillaume Soudain – EASA Software Senior Expert / AI Project Manager**

# Thank you for your attention!

**TRUST**

Any question?

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[easa.europa.eu/connect](https://easa.europa.eu/connect)



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An Agency of the European Union 