

Project Case:

# ZEROemission Aircraft development with MBSE

## Context:

Today, the development of an innovative program such as ZEROe deals with a lot of documents (GSheet, GDoc, GSlides, diagrams.net,...) defining and containing information which intends to define the future ZEROe aircraft:

- Requirements and pseudo requirements
- Functions
- Concepts
- Technologies and their characteristics
- Parameters, techno characteristics
- Simulation results

**A PLACE FOR A CROSS DOMAIN COLLABORATION IS NECESSARY!**

## Approach:

Define a ZEROe Modelling & simulation strategy In link with SE/MBSE and V&V to successfully adopt MBSE

- Gather existing simulation models, workflows, processes with associated purpose, maturity, interfaces, stakeholder...
- Identify what has to be verified or understood for each system or equipment based on key Learnings and V&V needs,...
- Identify gaps between needs and solutions and build a simulation strategy (updates or new devs, validation tests, coaching...)
- Deploy multi domains, multi-systems, multi-teams simulation methods & tools
- Deploy solutions to manage models and simulation configuration all along their lifecycle

## Results:

- 01|** Deploy SE/MBSE to support system definition and V&V  
Also to manage key learnings and specify behavioural models
- 02|** Train and support people on System Engineering and MBSE in order to facilitate systems definition, integration and verification at every layer.
- 03|** Define a single source of truth for system engineering content, synchronized and managed in configuration between all teams.
- 04|** Improve existing MBSE means to adapt them to ZEROe needs.
- 05|** 2022 MBSE deployment focused on H2 related systems and subsystems (PPS, H2 systems, NPE, A/C ops).

