



Need Elicitation with MBSE

1. Need elicitation with MBSE
2. System and safety consistency
3. System Architecture to Cosimulation
4. Digital continuity for MBSE

MOISE
Models and Information
Sharing in Extended
Enterprise

Value Proposition

To allow a complete, correct and unambiguous need elicitation, within the context of a customer-supplier relationship, thanks to an efficient and proven methodology that relies on MBSE.

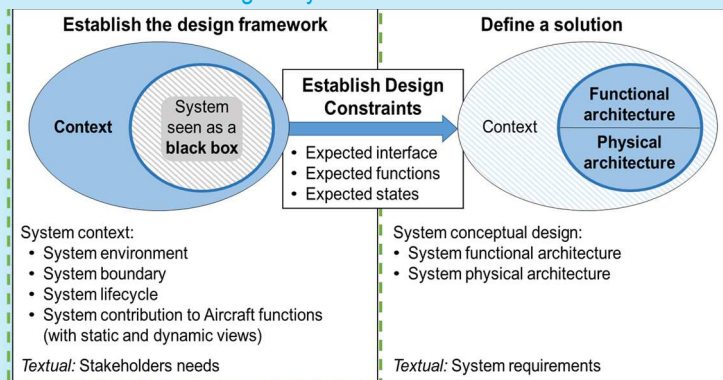
Motivations

In Aeronautics and Space domains, the contract signed between a **customer** and a **system supplier**, includes a technical specification that represents the technical agreement between the two parties.

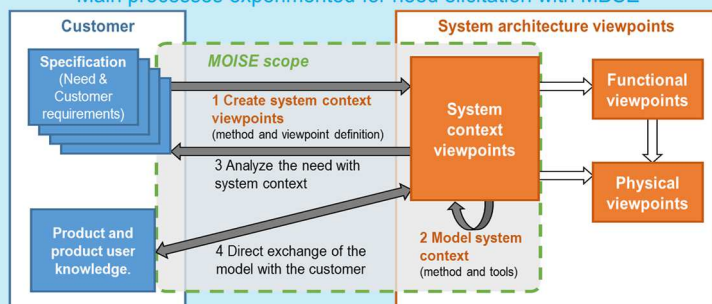
Due to the lack of effective collaborative method, this specification can have gaps, inconsistencies, ambiguities or can unintentionally narrow the range of solutions.

Proposed solution

Positioning on system architecture activities



Main processes experimented for need elicitation with MBSE



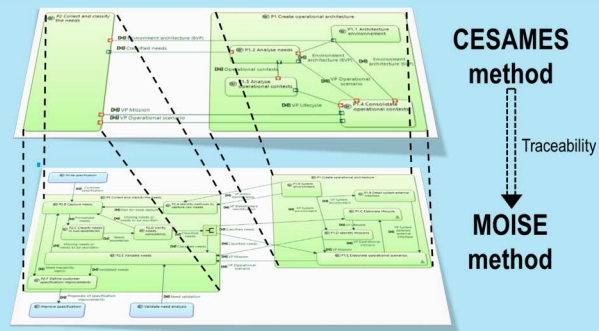
Steps 1 & 2: Model the system context and establish design constraints
Steps 3 & 4: Study the benefit of those viewpoints in order to improve the need elicitation with the system customer

Outcomes

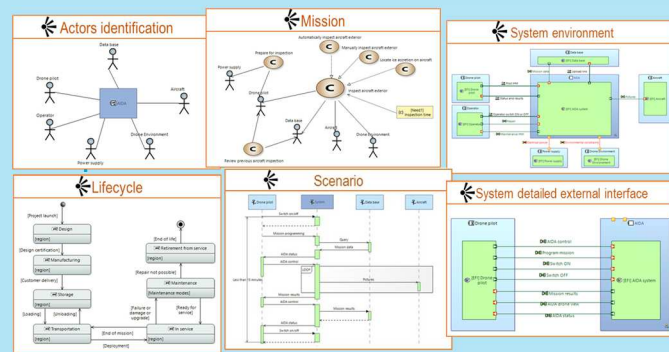
- MOISE method description, implementation of Viewpoints in Capella
- Collaborative architecture definition process
- Bleed Air System AS models and need elicitation
- AIDA models, available on the IRT Saint-Exupéry Forge: <https://sahara.pf.irt-saintexupery.com/AIDA>



From CESAMES method to MOISE method



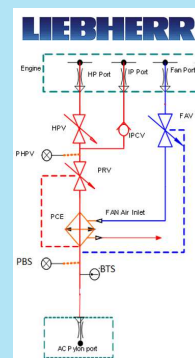
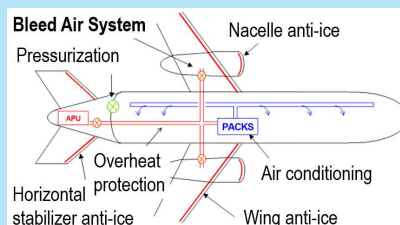
System context modeling in Capella



Study cases

Experimentations of M&T in collaboration with LIEBHERR experts on:

- MOISE study case **AIDA**, drone for A/C preflight inspection
- LIEBHERR industrial study case: **Bleed Air System**



CONTACTS:
Pierre VIRELIZIER
pierre.virelizier@irt-saintexupery.com
Guillaume VOLBRECHT
guillaume.volbrecht@irt-saintexupery.com