



Tooled methodology for seamless collaboration

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

Accelerating and extending the scope of Systems Engineering analyses thanks to a unified vision of structural architecture, across domains and within the Extended Enterprise (EE).

Main challenges

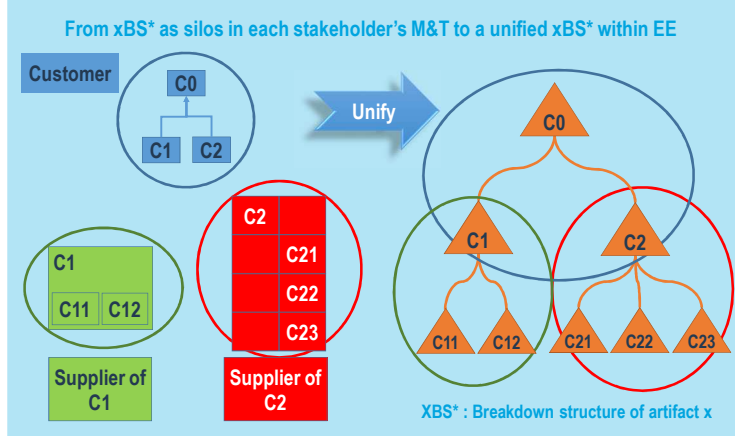
- Take into account **heterogeneity** between EE stakeholders' data, methods & tools.
- Make each stakeholder comfortable with the **exchange of data** regarding confidentiality.

Proposed solution

MOISE has developed a **Proof Of Concept**, called **TeePee** ("TeePee is an enhanced engineering platform for the extended enterprise), that demonstrates the key concepts allowing the **digital continuity** in the **Extended Enterprise**.



- **Viewpoints** (datamodel and glossary) formalize the information to be exchanged.
- Each company keeps **full control of the storage** of its own System Engineering data and manages its publication.
- Each company can **access** other stakeholders' data only to the extent of its **rights** on published viewpoints.
- Modular **web-based services** provided through a REST API allow the implementation of **connectors** with virtually any technology.
- **Visualization** of analyses results includes **dynamic interactions** and customizable dashboarding with dedicated tools like SQUORE.



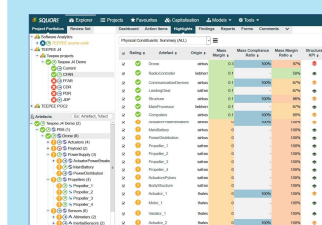
7 viewpoints focused on structural architecture

- Operational Stakeholders
- Functional Breakdown
- Functional Flows
- Constituent breakdown
- Physical interactions
- Function Allocation to Physical Constituent
- Functional Flow Allocation to Physical Interaction

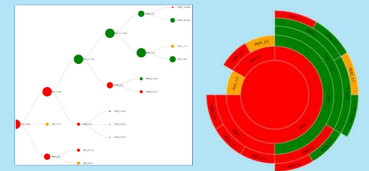
```
GET /api/v1/projects/{project_id}/baselines/{baseline_id}/viewpoints/{viewpoint_type}
GET /api/v1/projects/{project_id}/baselines/{baseline_id}/viewpoints/{viewpoint_type}
```

Name	Location	Description
v_id	path	version of the API
project_id	path	name of the project delimiting the scope and baselines. The current implementation allows the following values: DATASET, AIDA.
baseline_id	path	name of the baseline to use for the project. The current implementation allows the following value: 00.
viewpoint_type	path	identification of the viewpoint used to filter the model data. The current implementation allows the following value: pb/maas.
start_ids	query	list of starting elements id
exp_depth	query	stop criteria for extended enterprise exploration (experimental)
TEAM	header	TEAM key used for authentication (in header)

Code	Description	Schema
200	a model (See endpoint model definition)	viewpoint ({ code: model, model: viewpointModel ()

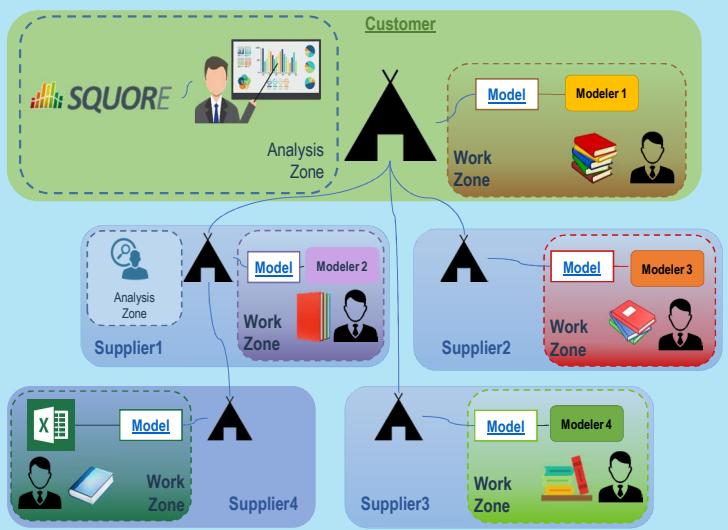


Dynamic visualizations: Collapse, zoom...



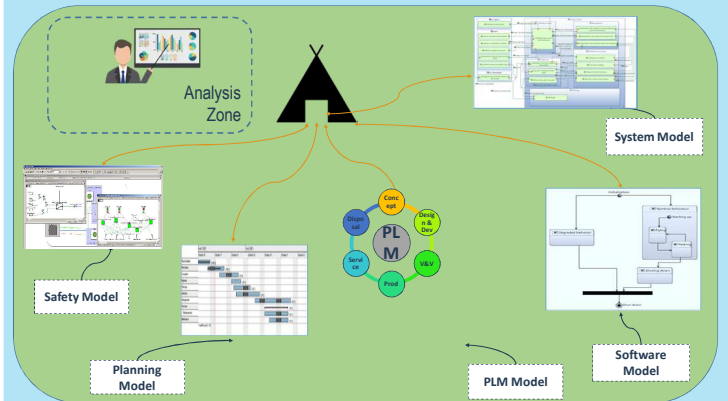
Considered use case

Example of EE using TeePee



Opportunity

Within a company, same concept could be used: viewpoints and tool connectors would bring consistency between domains.



CONTACTS:
Julien BACLET
julien.baclet@irt-saintexupery.com
Guillaume VOLBRECHT
guillaume.volbrecht@irt-saintexupery.com