

> Are there any proposed technologies to address the challenge of process modelling for implementations of the Space System Ontology (e.g. the MBSE Engineering Hub)?

OHB: We do not have a proposal for a technology for the process modelling. As for the relationship between development processes and the OSMoSE ontologies, we propose that the ontology documentation clearly states that a project-specific sub-setting of the ontology is expected, such that the relevant part of the ontology are identified.

> Can the LSIs provide info on what formalisms / languages are used internally (at group level) to develop their ontologies?

OHB: Our MBSE ontology is developed directly in our MBSE authoring tool by setting up respective stereotypes for model elements representing parts of our ontology and modeling the interdependencies of those. The overall ontology ranges multiple engineering domains and the respective data models are maintained by multiple tools. Each of the tools uses a meta-model or ontology specifically designed by means of the respective technology and tool. Concepts that are part of different such meta-models are semantically mapped.

> I understood that the plan was to have semantic interop to exchange data. If we start using the ontology to have human interaction with the data, how do we prevent that osmose just becomes tool n+1

OHB: To our understanding, the OSMOSE activities aim at creating a common semantic understanding for space systems engineering. The plan is that concepts used in stakeholder specific tools are mapped to the concepts of the SSO to achieve mutual semantic understanding of key concepts and terms. This would be the basis for developing concrete model exchange formats between different MBSE authoring tools. We hope that at least those parts of the models which are covered by the OSMoSE ontology can be exchanged between different tools, after respective adapters were developed. We acknowledge that all, potentially big, parts of the stakeholder models that are not covered by the ontology, cannot be exchanged.