

OSMOSE ONTOLOGY GOVERNANCE

ABSTRACT

Space industry and Agencies have recognized already for quite some time the interest and added value of Model-Based System Engineering (MBSE) in streamlining the design, development, deployment and verification of space systems. There have been many initiatives during the past decades, aiming at defining models and tooling able to support the various needs of the system engineering process. MBSE is increasingly being used in operational projects and the next step is to use extensively MBSE all along the system life cycle, across disciplines and throughout the supply chain.

OSMoSE (Overall Semantic Modelling for System Engineering) arises from the need of enabling interoperability among model-based infrastructures to allow the exchange of information among different stakeholders. Namely, the solution to address interoperability at semantic level is to do information modelling at system specification level (i.e. the "what"), building a global conceptual data model for the Space System – the *Space System Ontology*.

The OSMoSE Governance manages the development and use of the Space System Ontology in a consistent, industrial and useful manner, agreed by the community, and is conducted by two different groups:

- A Management Steering Group (MB4SE Advisory Group) responsible for managerial issues (e.g. risks, legal issues).
- A *Design Authority Group* (OSMoSE Working Group) taking control of its development. This group makes all technical decisions (e.g. language selection, definition of the development lifecycle), and guides the elaboration of the global conceptual data model to ensure its capability to achieve interoperability.

The OSMoSE Goverance project elaborates a set of deliverables to manage the development and use of the Space System Ontology. Namely, the following documents have been released:

- Steering group terms of reference
- Design authority group terms of reference
- Project plan including the IPR management issues
- Development plan
- Consolidation of the ecosystem
- Website

These documents have been approved by the Management Steering Group and the Design Authority Group. They cover the different aspects that have to be considered along the development of the Space System Ontology, providing a complete ontology governance definition.

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