

## **Development of a universal ontology for the global space supply chain**

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As the global space industry continues to grow, there is a pressing need to standardize the way stakeholders communicate about products, services, technologies, and missions across the value chain. The rapid growth of small satellites over the past decade, leveraging the popularity of the CubeSat form factor, has demonstrated the value of standardization towards reducing cost, time-to orbit, and risk.

An area of research that can help towards ensuring greater reliability & performance, whilst still optimizing for cost and schedule, is the development of a “common language” for space systems. Developing a universal ontology for the global supply chain, on the basis of such a common language, would enable the ecosystem to foster rapid design & prototyping, streamlined Assembly, Integration, & Testing (AIT), and deep insights during mission operations.

We present our on-going effort towards developing a universal ontology for the global space supply chain and highlight examples of how this can help support the next generation of complex space missions.