



AeroSpace and Defence
Industries Association of Europe



Why a new edition of AP233 is needed

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MBSE needs a data-centric approach

Model-Based Systems Engineering (MBSE) is deployed in the industry based on a variety of modelling tools, from requirement management (e.g. DOORS), system modelling (SysML-based, Capella), system analysis (e.g. Safety assessment), system simulation (e.g. Modelica-based, MATLAB Simulink).

Strong need in the industry to exchange SE workproducts (with partners, customers, suppliers)

The model approach recognised as insufficient: **a data centric approach is needed**

- INCOSE White Paper “[Integrated Data as a foundation of Systems Engineering](#)”, (Dec. 2018)
- Space System Ontology – [Brainstorming workshop](#), June 2019

The need is not new: AP233 developed in 2000 (but never implemented).

AP233 ed2 project opportunity

Why a new edition of AP233 can succeed?

- Awareness of data-centric need is growing in Systems Engineering community
- Industry is organising: Space (Space System Ontology), Aero (PLM AG)
- Progress made on ISO/TC 184/SC 4 side:
 - STEP Extended Architecture, with improved modelling methods (SysML-based) and a new integration layer: the Core Model
 - Ability to build an AP233 Domain Model on STEP Core Model
 - Interoperability with AP239, AP242 and AP243
- IT vendors to be involved through an MBSE Interoperability Forum
 - Activity started by AFIS and AFNeT with a reduced scope: Requirement and V&V Interoperability Forum in construction ([link](#))