

GSAW Panel Session

Harmonisation: Challenges and Opportunities

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Harmonisation: What is it?



According to 2011 GSAW presentations and panels

- To use the same standards (CCSDS)
 - To achieve interoperability between flight and ground systems
 - To exchange data, e.g. conjunction data message
- To make systems work together (Intelsat)
- To implement common framework for software baselines across organisations, single platform (several presentations)
- To have a compatible satellite CC architecture (theme 13C panel)
- To use common displays (JSCC)
- To use commercial assets in DoD systems (theme 13C panel)
- To standardise space-ground interface and operational concepts and reduce costs of ownership (ISIS)
- To share investments and avoid unnecessary duplication (ESA)
- To exploit synergy between satellite testing and satellite operations (ESA)

Three key elements for Harmonisation

- Must be based on accepted standards
 - Technical or formalized
 - Space (CCSDS, ECSS,..) or industrial (ISO, OMG,..)

=> Organisations to increase support to development and validation of standards by deploying experts with the right competencies

- Must be based on a solid business model: there must be something in it for all involved stakeholders
 - Sponsors, users and suppliers

=> Lay down a solid business model for harmonisation, exploiting win-win situations and avoiding the rest

- Must reuse existing technologies and assets
 - Take advantage of main stream software technologies
 - Reuse as much as possible existing software, adapt to new technology
 - Use Open source software

=> Consolidate an implementation roadmap, based on mainstream technology, re-engineering of products and use of open source software