



EDA - OCCAR
Throuh-Life Management Conference
16th November 2010, Brussels

***Business benefits across design, support
and the supply chain from coherent
data exchange standardisation***



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Albert Grabmeier, CASSIDIAN Air Systems and ASD CPSC



Business benefits across design, support and supply chain from coherent data exchange standardisation

- **Introduction**
ASD - AeroSpace and Defence Industries Association of Europe

- **ASD Strategic Standardisation Group (SSG)**
 - E-Business challenges and opportunities
 - The Importance of Standards to Customers
 - Standardization role in A & D
 - ASD SSG Activities

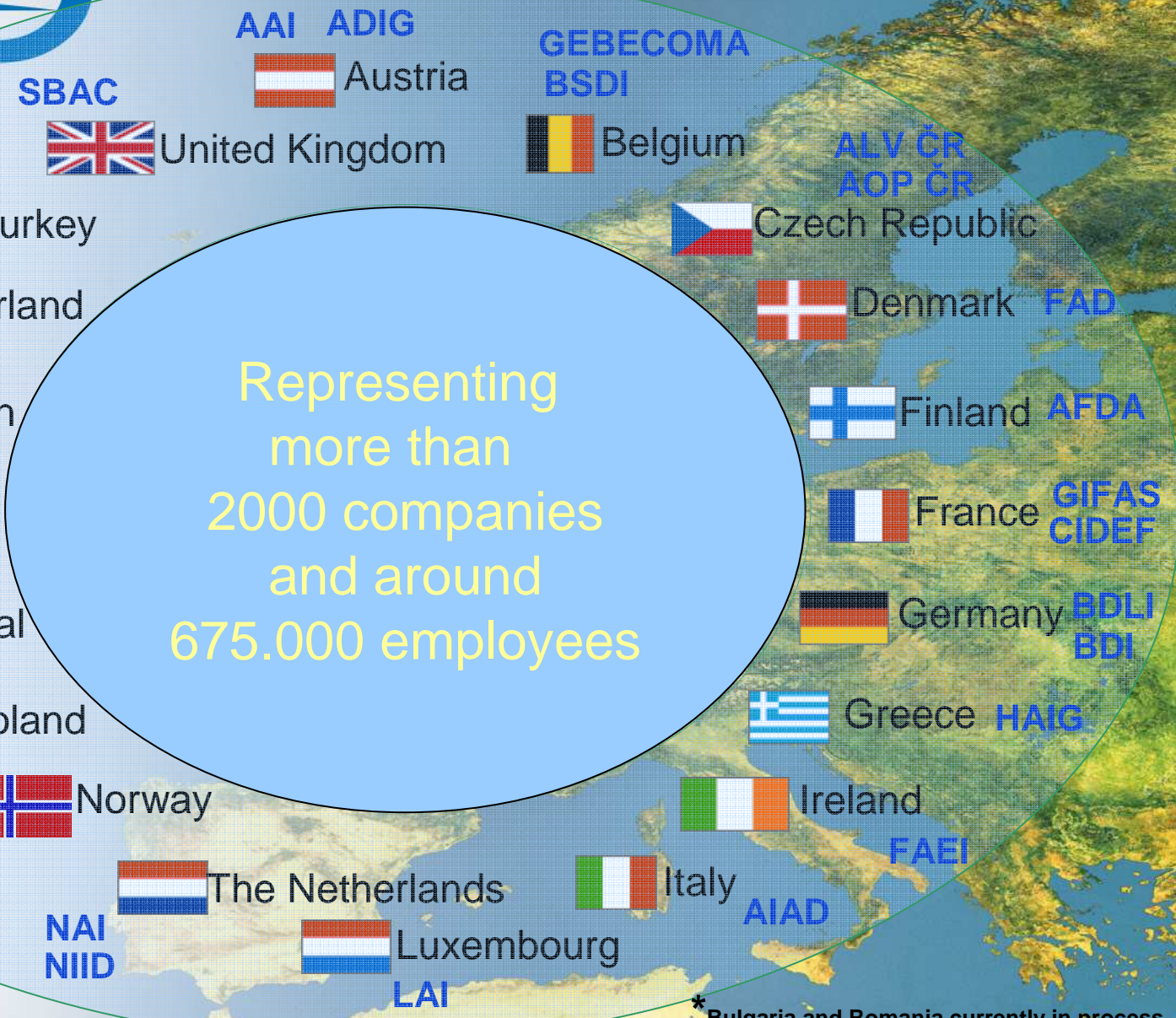
- **ASD Suite of ILS Specifications**
 - Presentation, issue plans
 - AIA/ASD Collaboration

- **Conclusion, Contacts**



AeroSpace and Defence
Industries Association of Europe

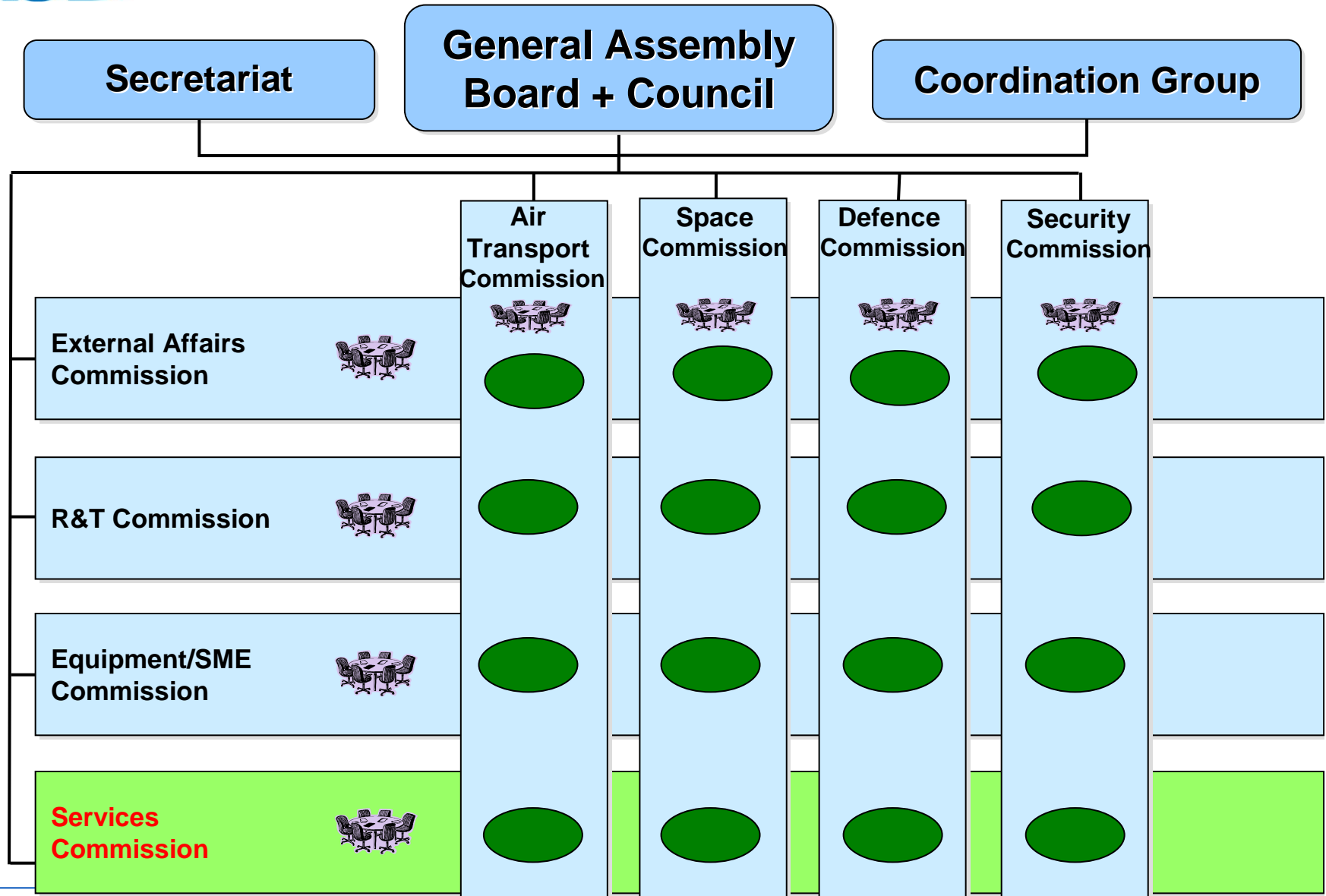
20 member countries*
30 member associations



*Bulgaria and Romania currently in process



General Organisation (Sept 2010)

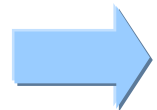




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E-Business challenges and opportunities

The Importance of Standards to Customers

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E-Business - challenges

**Digital collaboration
needed to improve
competitiveness**

**Increasing use of
digital product
models from the
preliminary design to
customer support**

**Long term archiving
of model-based dossier**

**Proliferation of
proprietary formats,
“digital breaks”**

**Processes, methods
and tools**

**Suppliers supporting
global market**

**Heterogeneous
practices, process and
platforms**

**Cost of evolution and
maintenance of effective
digital infrastructure**

**Need to secure the
investment made in
collaborative
infrastructure (e.g. PLM)**

**New contract models:
Information Exchange /
IPR issues**

Diapositive 6

E1

Nicolas : I proposed a change of the first slides to simplify content (too much text) but also in order to present the issues creation of ASD SSG address.

I also tried to harmonized and to simplify 3 level governance in order to explain our different activities

EADS; 16/11/2009



The Importance of Standards to Customers e.g.: UK MOD

Through Life Support;

“In the quest to drive down the costs of Through Life Support it is essential that we support the development and adoption of global standards”

Brigadier Martin Boswell, Head of Through Life Support, UK MOD

Log NEC Programme;

“The adoption of global information standards within Log NEC is a critical underpinning factor to all our initiatives in enabling joint working between MOD and our industry partners. It is the key to enabling us to respond more quickly to changing requirements, to drive out unnecessary costs associated with integration and to improve data quality”

Brigadier Alan Clacher, Head Log NEC Programme, UK MOD



The global perspective



US view

The aerospace value chain is becoming increasingly global in nature, with suppliers in many countries supporting manufacturers in the US and Europe, across many home markets.

- This implies the use of global standards, which is already AIA and ASD policy,
- the value of exploiting such standards is now being promoted by consultancies such as Gartner.

Our customers are also recognising the value of standards-based links to the supply network for all classes of information exchange.

- In the defence sector, consideration is being given to possible DFARS clauses mandating the use of DoD architecture components, and in the UK, the MoD has already developed a joint logistics architecture with industry, based on global standards. In Europe, OCCAR is seeking to efficiently manage and support trans-national projects.
 - logistics information for collaborative in-theatre operations, and consistency between projects on information planning.
- The ATA is setting up global eBusiness standards for the airline industry.
 - Defence ministries are also working on collaboration on these trends reinforcing the opportunity for global collaboration on setting industry standards.



The business case for Electronic Integration



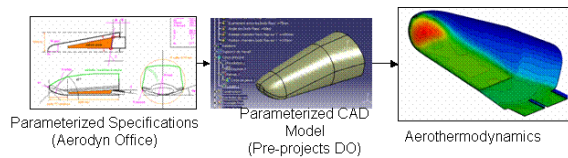
US view

AIA members are committed to a vision for e-Business across the industry, where:

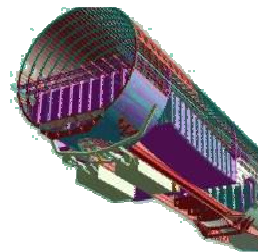
- all participants in the aerospace value chain will be able to exchange information across an information backbone relative to:
 - product design,
 - business relationships,
 - transactions,
 - and product support
- This vision is to be achieved through industry-level adoption of:
 - policies and standards,
- benefits to prime contractors, suppliers and customers through simplification of electronic trading,
 - fewer interfaces and simpler processes,
 - reduced support costs
 - more agile
 - responsive teaming.
- generate innovative process changes to further improve performance



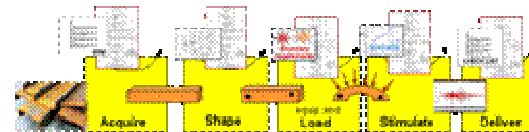
Some Aerospace & Defence challenges (vision 2020)



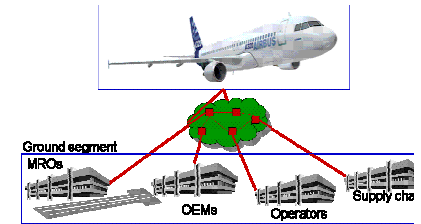
« Full virtual concept »
deployed with
System contractors
and with Disciplines



« Full 3D configured
DMU » deployed with
component and sub-
assembly Suppliers



« Full virtual rigs »
deployed with
Testing Labs and
Certification
authorities



« Full virtual A/C enabled
services » deployed with
Operators and MROs

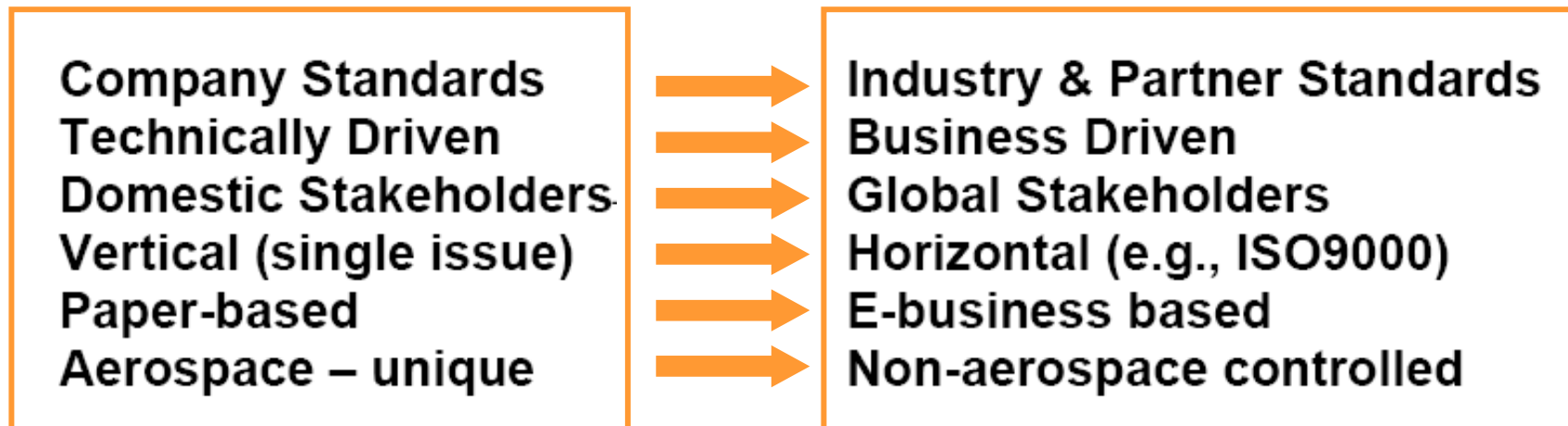
How to organise collaboration around these artefacts?
How to reach collaboration industrial performance?

➔ **Standards!**



Evolution of standardization role in A & D

Paradigm Shifts in Standardization



Source:

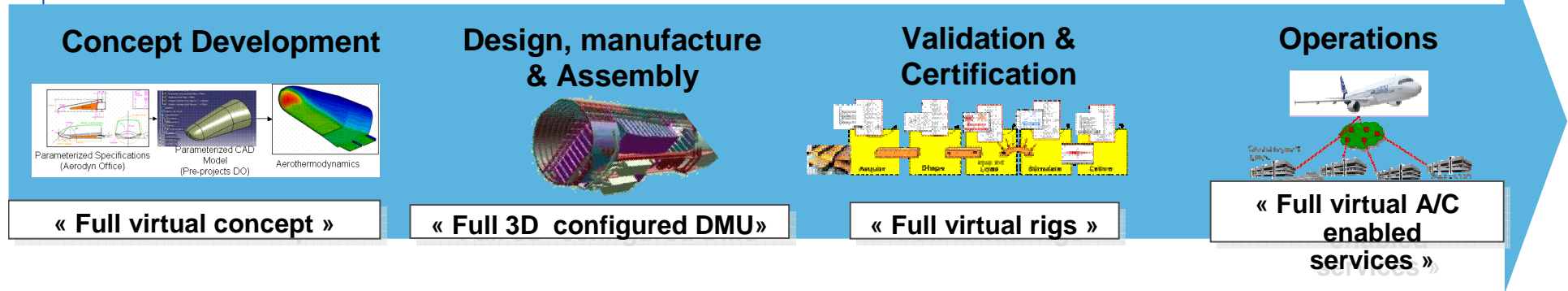


*The Future of Aerospace Standardization
January 2005*



Standards Governance rationale

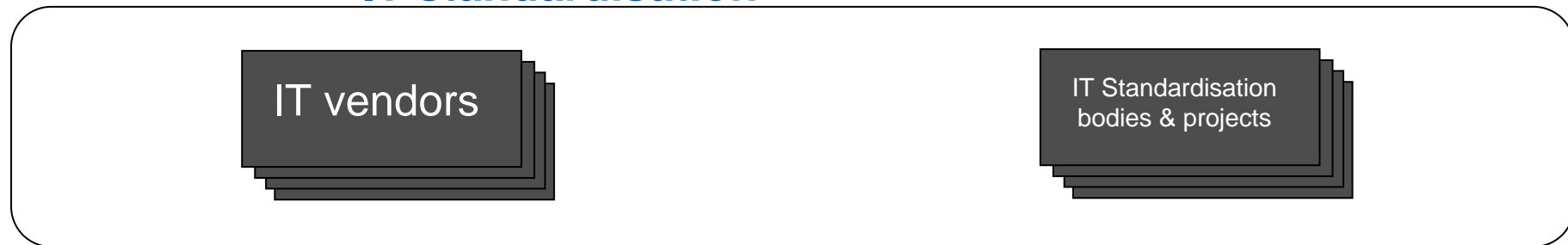
Industrial collaboration needs & operations



AeroSpace & Defence standardisation



IT standardisation



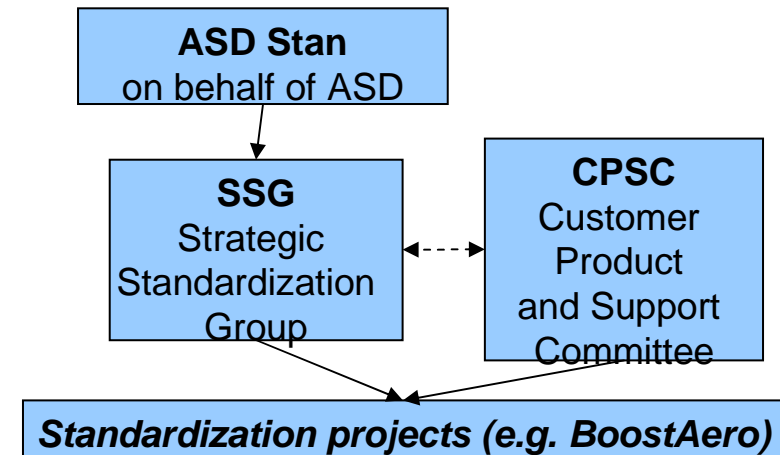


AeroSpace and Defence Industries Association of Europe

Scope

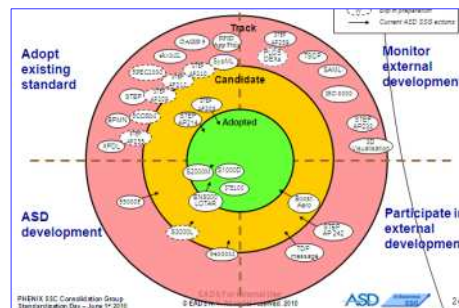
- The National Trade Associations represent the major European AeroSpace & Defence manufacturers
- Almost “mirror organization” to AIA
- ASD-STAN: European AeroSpace & Defense Standardization Organisation

Organisation overview



Related standards and policies

- Draft policy for PDM interoperability
- Sponsor of the STEP AP 242 project
- ASD SSG:
Radar screen



ASD MoU's with AIA – ATA - PDES Inc - ProSTEP

- LOTAR Long Term ARchiving
- STEP AP 242 Model Based 3D Design

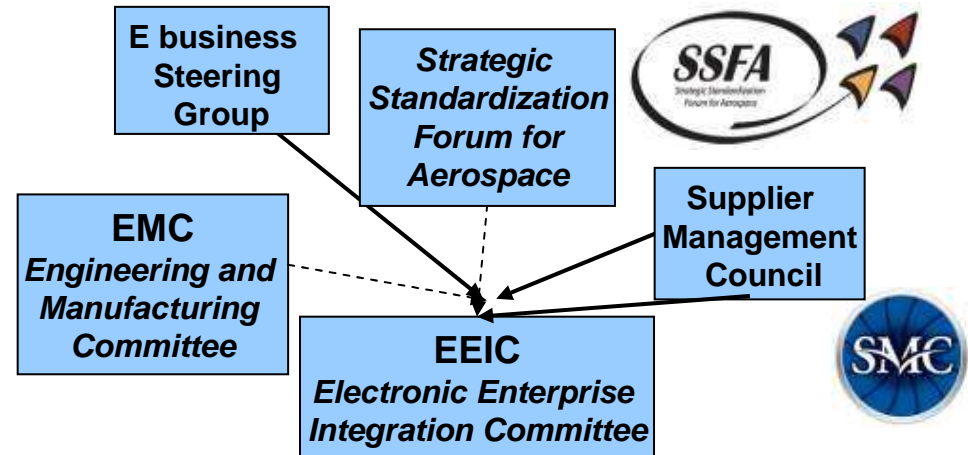


Aerospace Industries Association of America

Scope

- the premier trade association representing the US major aerospace and defence manufacturers

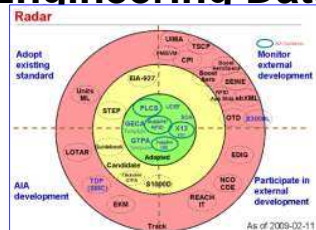
Organization overview



Related standards

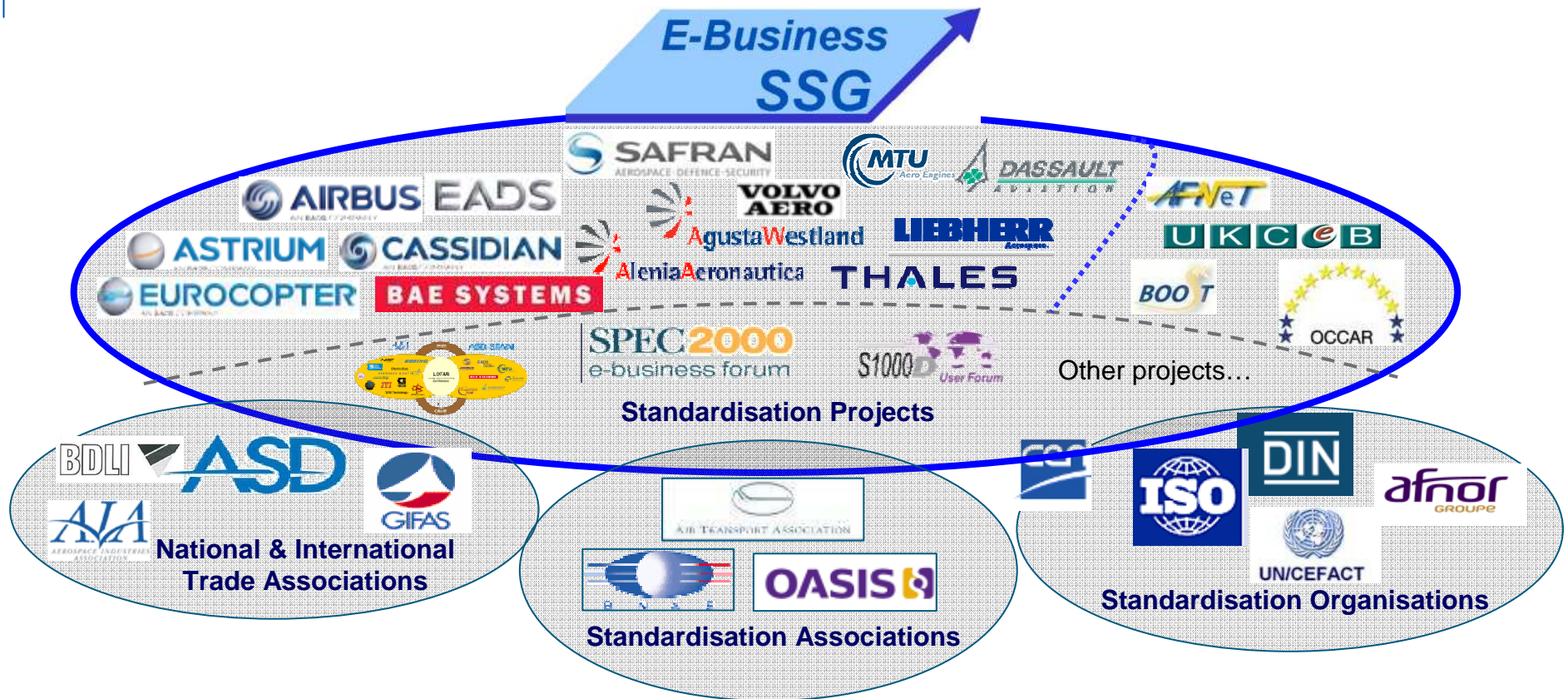
- EDIG: Product Life Cycle Support - STEP PLCS : Aerospace Industry Guidelines for Implementing Interoperability Standards for Engineering Data

- AIA EEIC: Radar screen



AIA – ASD coordination:

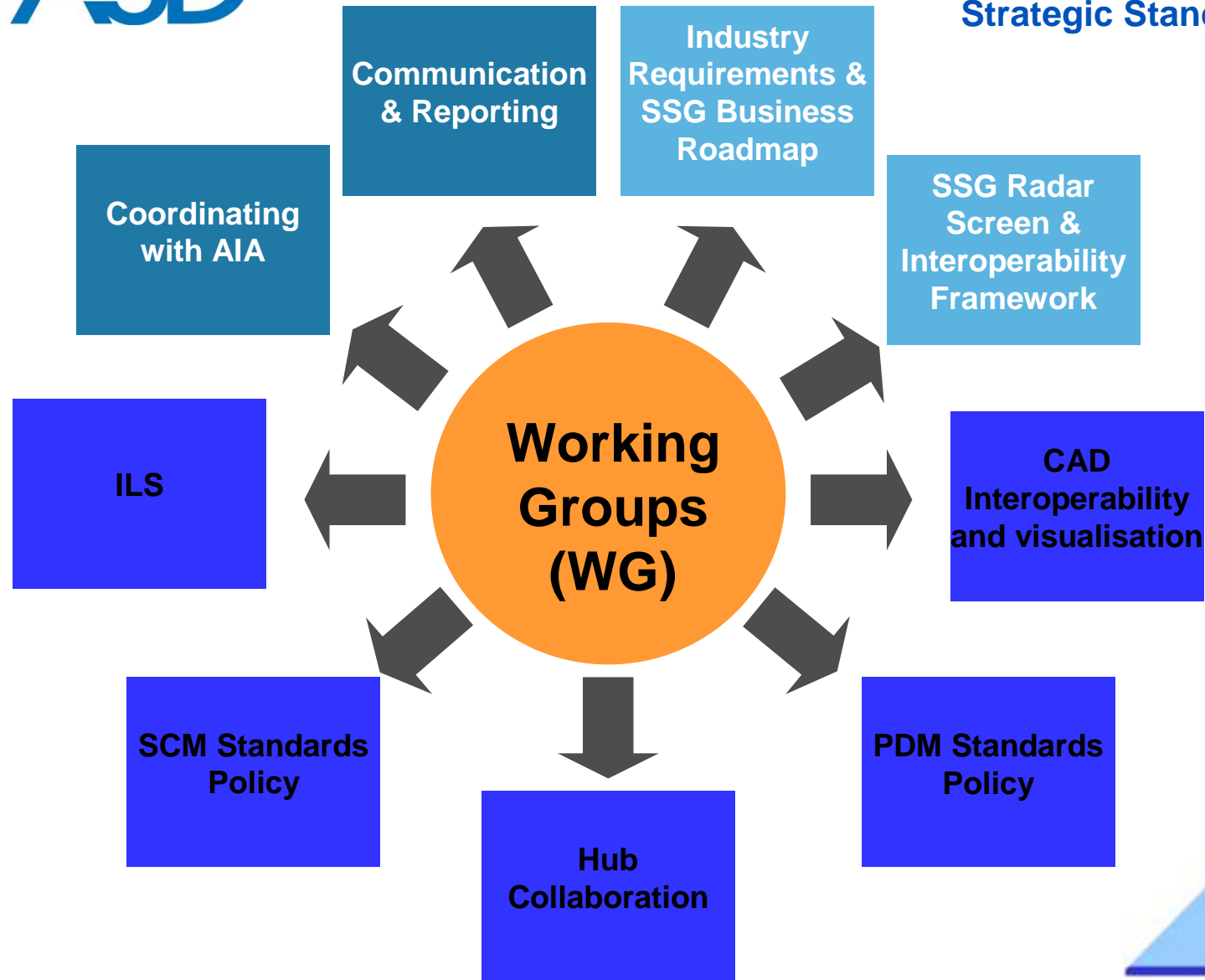
- Cooperation between AIA EEIC and ASD SSG (2009): common methods and templates
- Common MoU for the S1000D standard
- MoU for ILS specification alignment (2010)
- Proposed MoU on E-Business





ASD SSG Activities

Strategic Standardization Group

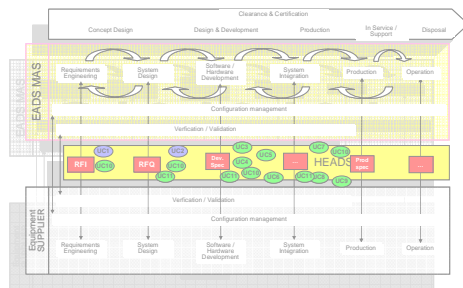




ASD SSG Interoperability framework

organizing the tools to master business requirements and consistency

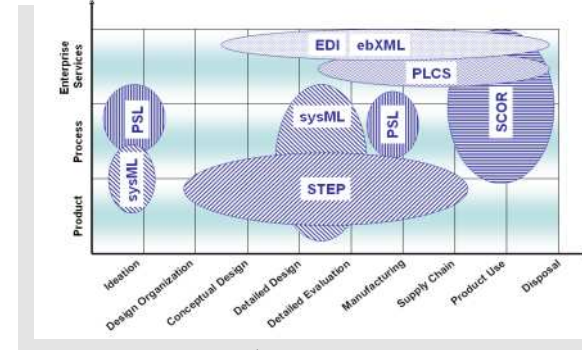
Business Scenario & Use Cases



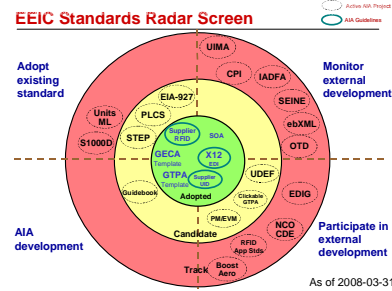
Identify & describe the need



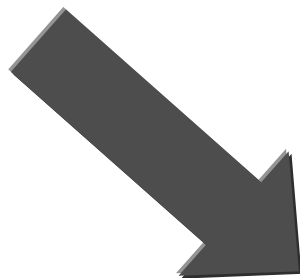
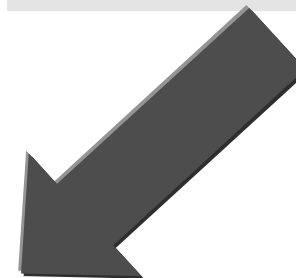
Life Cycle Gap Analysis



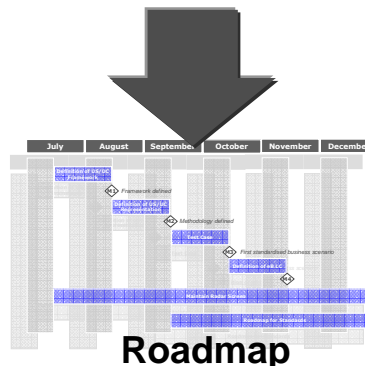
Radar Screen



Address the need



Develop standards & polici



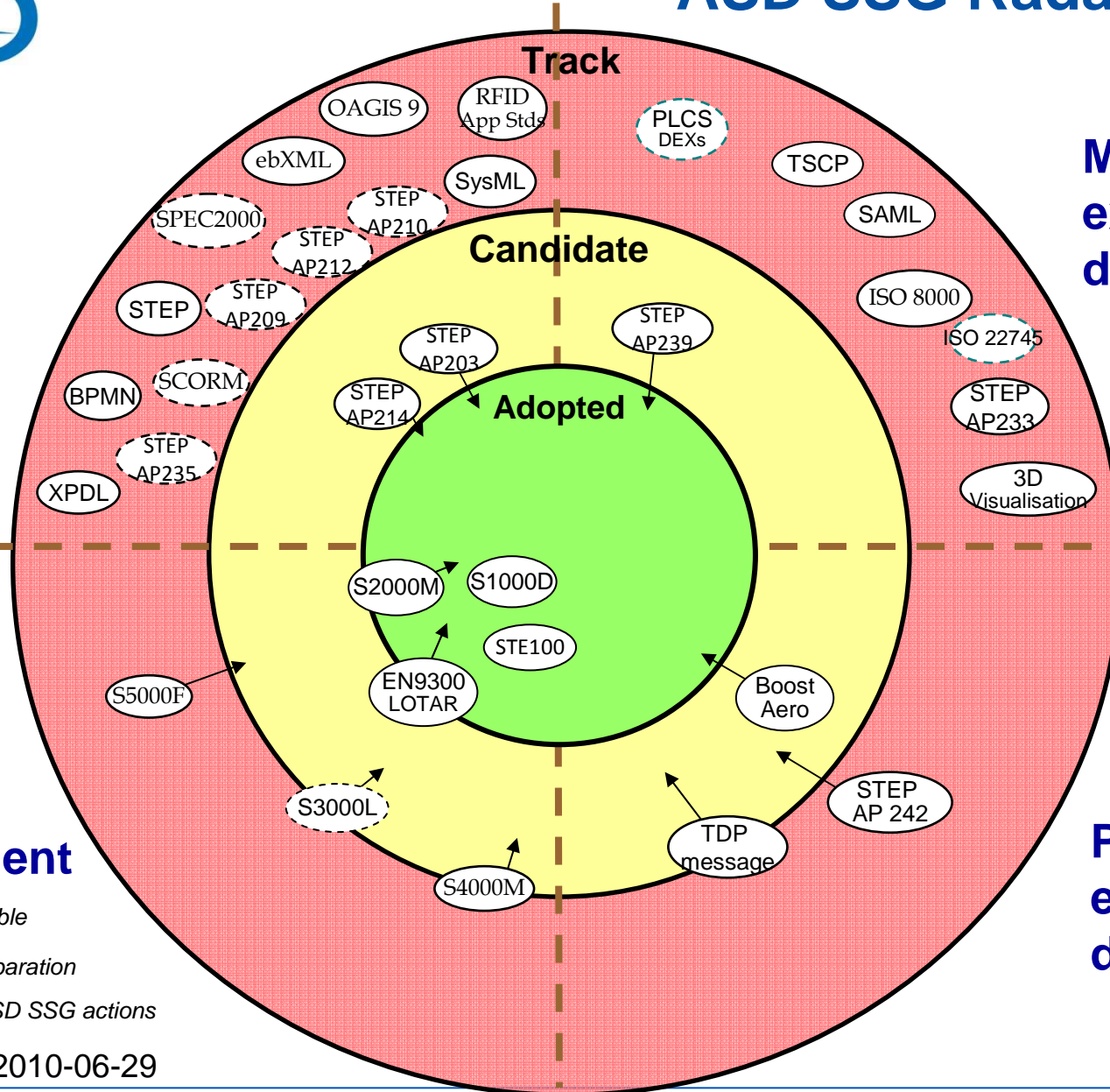
Roadmap



ASD SSG Radar Screen

Adopt existing standard

Monitor external development



ASD development

Participate in external development

- Blip available
- Blip in preparation
- Current ASD SSG actions

Last revised: 2010-06-29



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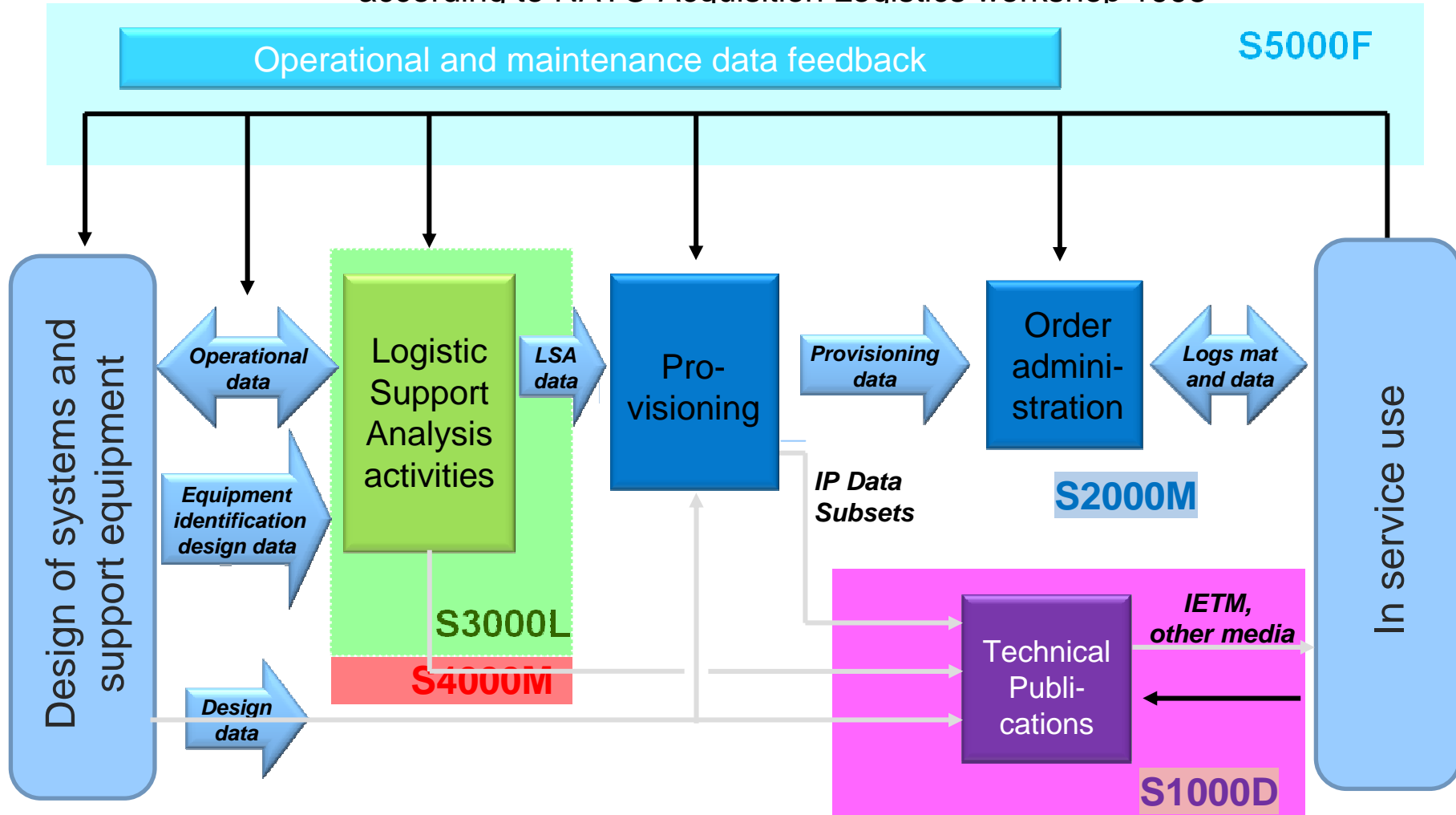


ASD CPSC Suite of ILS Specifications

Customer and Product Support Committee

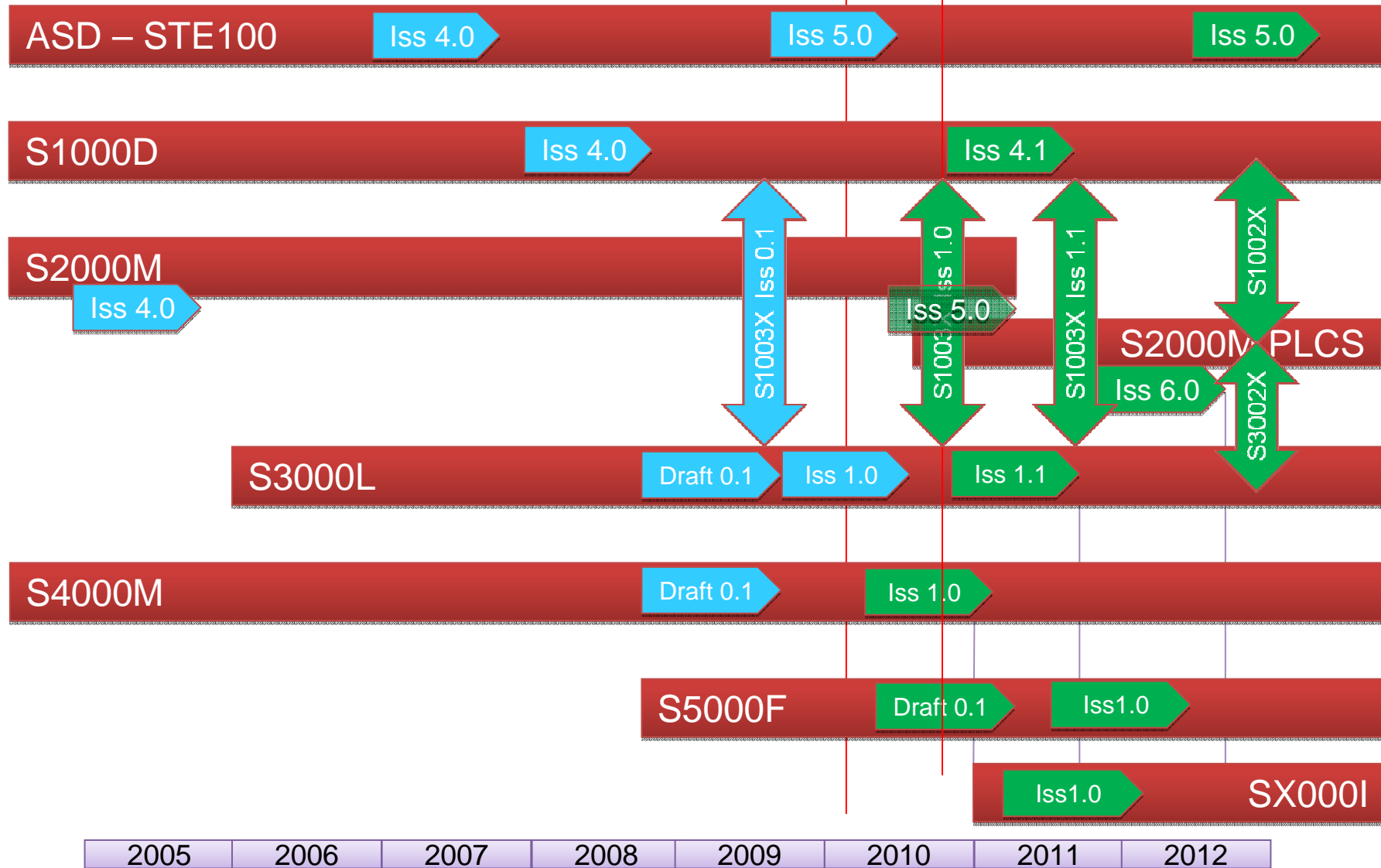
Acquisition Logistics – main business processes

according to NATO Acquisition Logistics workshop 1993





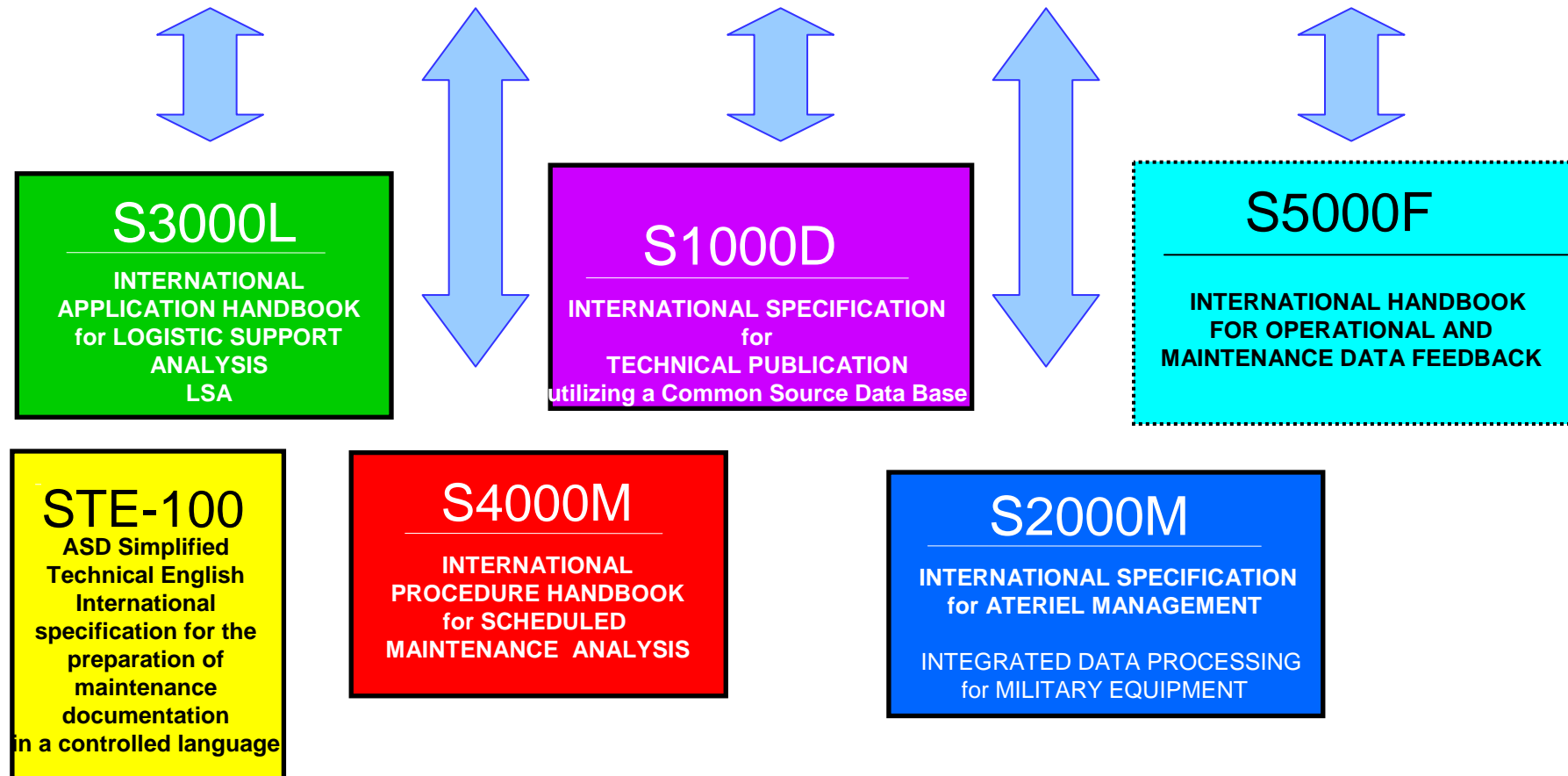
ILS Specifications Issue Plans





ASD CPSC Suite of ILS Specifications

ASD SX000I Integrated Logistic Support Management





AIA/ASD Collaboration

- **MoU in place for S1000D since 2004 (with ATA since 2008)**
- **New MoU for other ILS standards signed July 2010**
- **Discussions held between SSG and corresponding AIA Electronic Enterprise Integration Committee to extend the co-operation**
- **Using common planning process – originating in AIA**
- **Areas of collaboration identified**
 - **LOTAR**
 - **REACH**
 - **Engineering information exchange standards**
 - **3D visualisation**
- **Benefits statement for collaboration prepared**
- **Proposed MoU to cover the entire scope of interoperability**
 - **in AIA Strategic Plan**
- **Regular teleconferences held.**



MoU between ASD and AIA on S-series specifications cooperation

Following a meeting at the Farnborough Airshow between Patrick de Prevaux and Howard Mason for ASD, the AIA National Security Director Fred Downey, and AIA PSC chair Patresha Williams, we are pleased to be able to report that the AIA/ASD MoU on the S-series specifications was duly signed by Marion Blakey and Francois Gayet on 21 July 2010.

This will form a good basis for the further MoU that we have discussed for the other SSG areas. Both Fred and Patrick emphasised the high level of importance that is now being attached to interoperability at senior levels, and the exposure of this topic at the AIA Executive Committee and the ASD Convention was highlighted.





MoU between ASD and AIA on S-series specifications cooperation

Vision

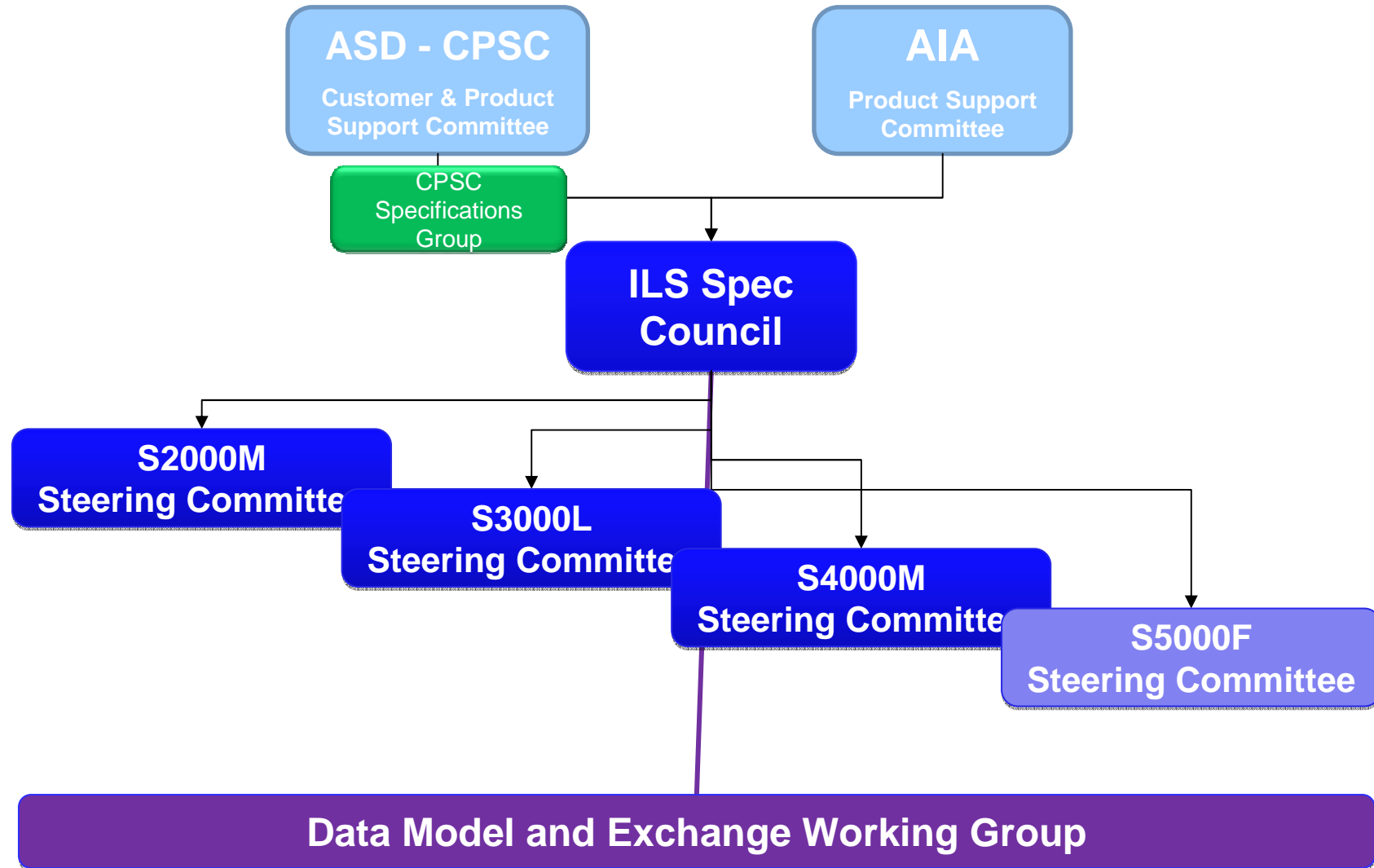
to be the international integrated specification suite for logistics support of Aerospace and Defence products

Mission

- to minimize project dependency by defining clear guidance and by avoiding inclusion of project and national specific rules and constructs
- to ensure commonality between the ILS related specifications to support the re-use across projects
- to give rules and guideline for the realization of an integrated logistic support to emphasize the main principle of ILS, the integration of the different logistic disciplines (the "I" in ILS must be the main driver)
- to ensure the application of the basic ISO standards
- to establish well defined data transfer mechanism between the different logistic disciplines based on PLCS.
- to cover all aspects of supportability over the entire life cycle of a product.
- to be the contractual baseline for industry and customers
- to be up to date with the technical development and changes in support philosophy



ASD/AIA ILS Spec's Organisation





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Conclusion, Contacts

- 1 A consistent set of e-business standards is being identified, assessed, developed and implemented in answer to European Aerospace, Space & Defence Industry needs
- 2 ASD SSG provides the needed capability:
 - Consensus at European AeroSpace & Defence industry level
 - Supported by national trade associations
 - Co-ordinated with US activities
- 3 Numerous methods are being developed, for which a first version should be made available in the next months
- 4 Several projects have been launched:
 - TDP Message Standardization
 - White Paper “Development of a Convergent Modular STEP Application Protocol Based on AP 203 and AP214: STEP AP242 – Managed Mode Based 3D Engineering”
- 5 Coordination and networking were initiated



SSG seeks the widest participation and contributions!



Contacts

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