

Airbus Group & Europe A&D strategy for PLM standards

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GLOBAL PRODUCT DATA INTEROPERABILITY **S U M M I T** 2014



ELYSIUM

Parker

NORTHROP GRUMMAN

BOEING

Content

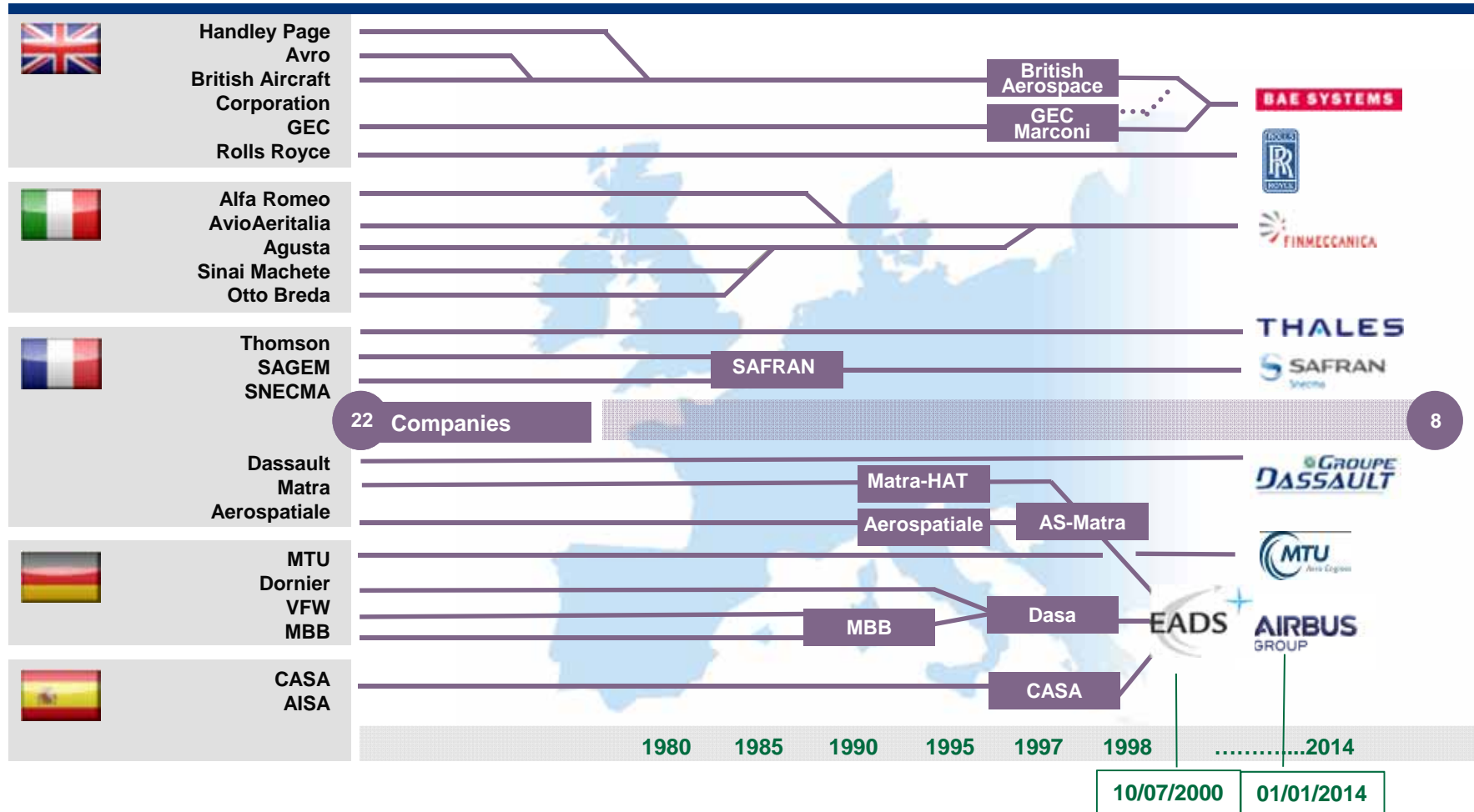
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- 1. From EADS to Airbus Group**
- 2. Airbus Group PHC & SSC strategy**
- 3. Europe ASD & SSG strategy**



A&D industry consolidation in Europe

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Airbus Group Revenues in Bn €

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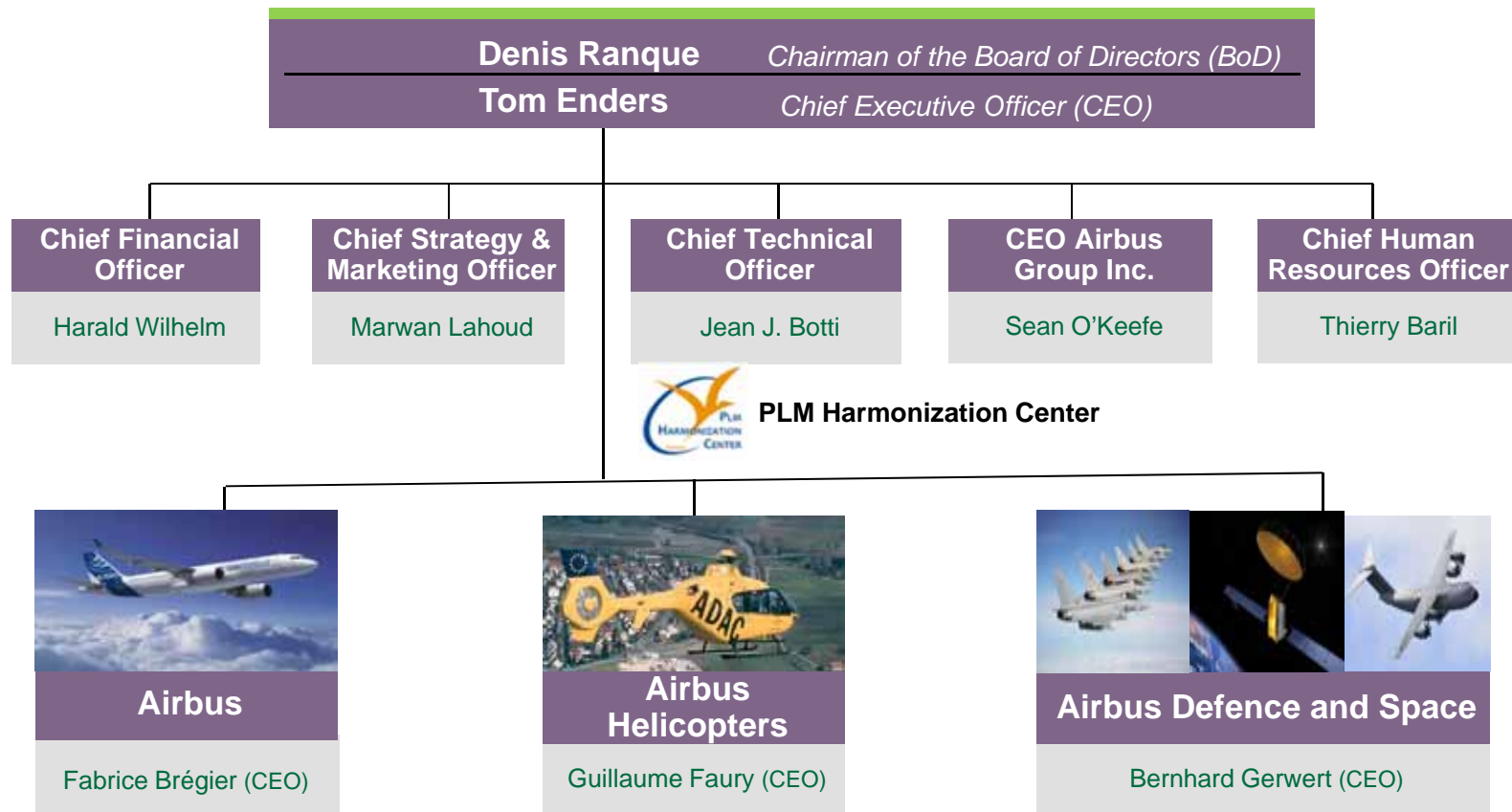


* Sales revenues defence in billions of euros

Airbus Group Top Management structure

11.09.2014

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Total number of employees: 144 061

December, 2013

PLM Harmonization Center (PHC 2.0) mission

EADS Executive Technical Council 2013

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“PLM (Harmonization) is a common EADS strategic approach and synergy creation for processes, methods, tools and data, supporting product development all along the lifecycle”

Synthesis from PHC Board (Nov, 2013)



Airbus Group PLM & Standardization governance roadmap

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Yearly PLM Standardization Day

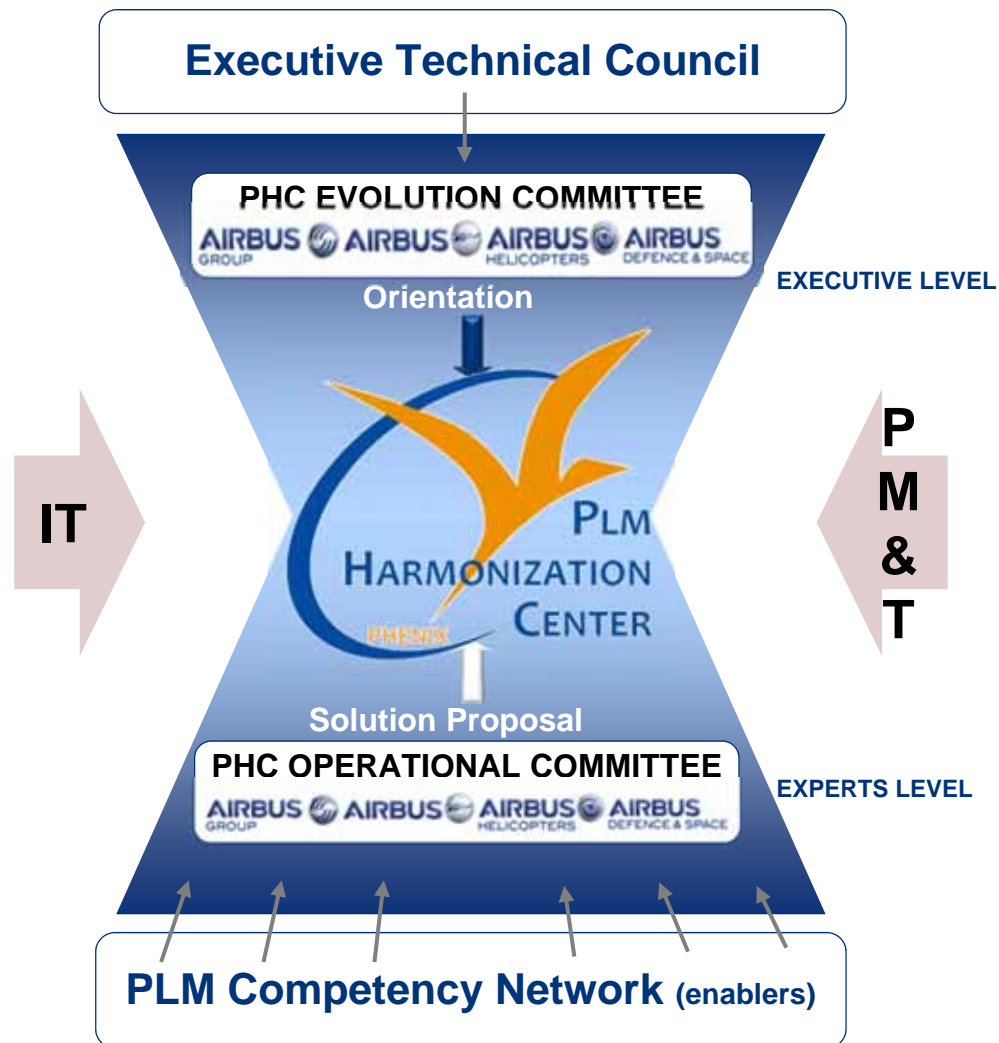
PLM & Standards Days

EADS PHENIX Strategic Standardization Committee

ASD Strategic e-business Standardization Group

PLM Harmonization Governance in Airbus Group

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1. ETC steers and validates PHC orientations

2. EVCOM defines PHC actions to allow achieving its mission at Airbus Group level

→ decides harmonization activities,...

2. OPCOM manages & operates cross-Divisional harmonization projects. OPCOM consolidates issues and operational needs and promotes common solutions.

→ operates harmonization activities,...

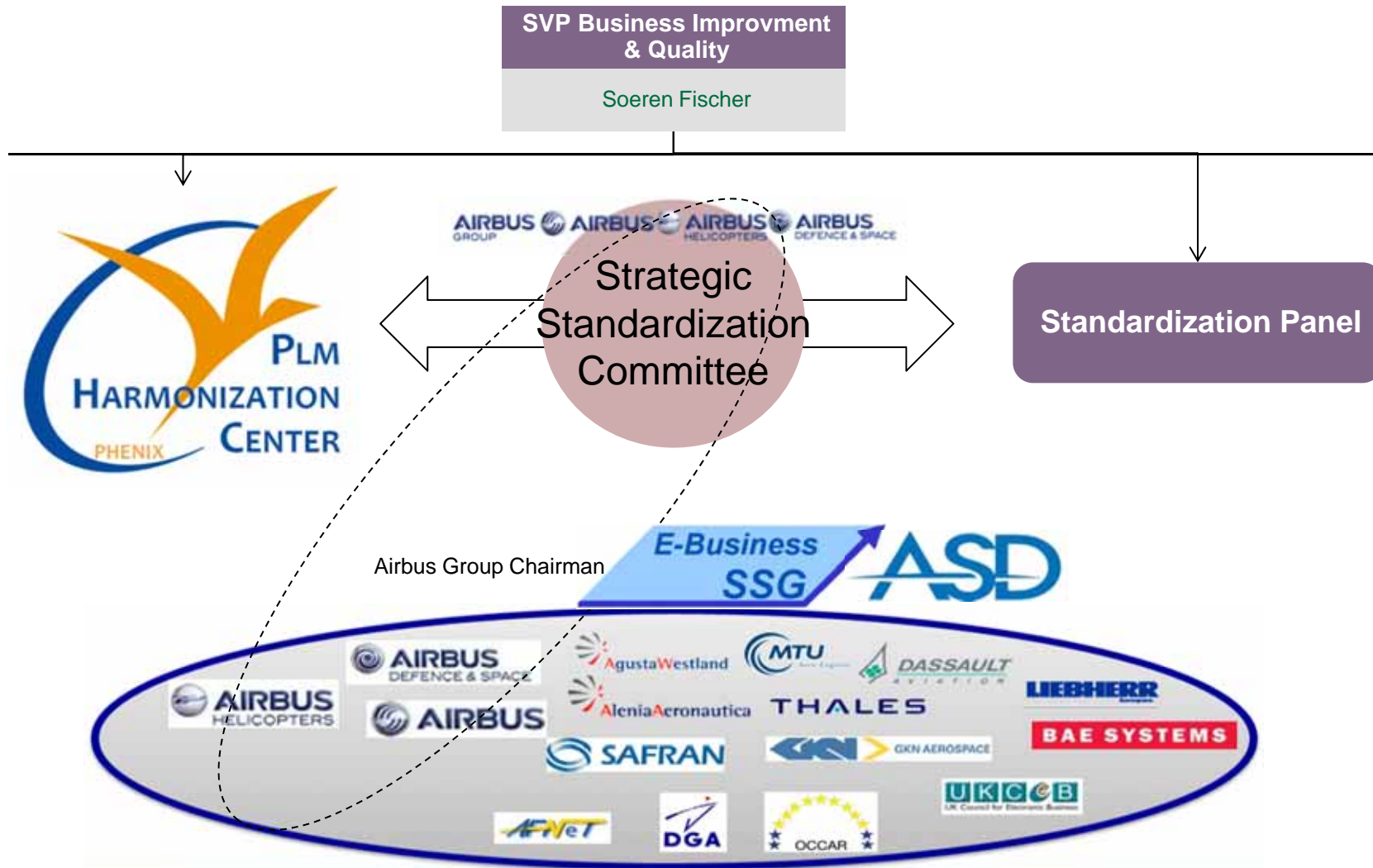
2. ... with the support of ENABLERS, the competency network of specialist contributors to PHC projects and to operational deployments in Divisions...

4. ... for the overall population of daily and occasional PLM users in Airbus Group

E-business Standards Governance in Airbus Group

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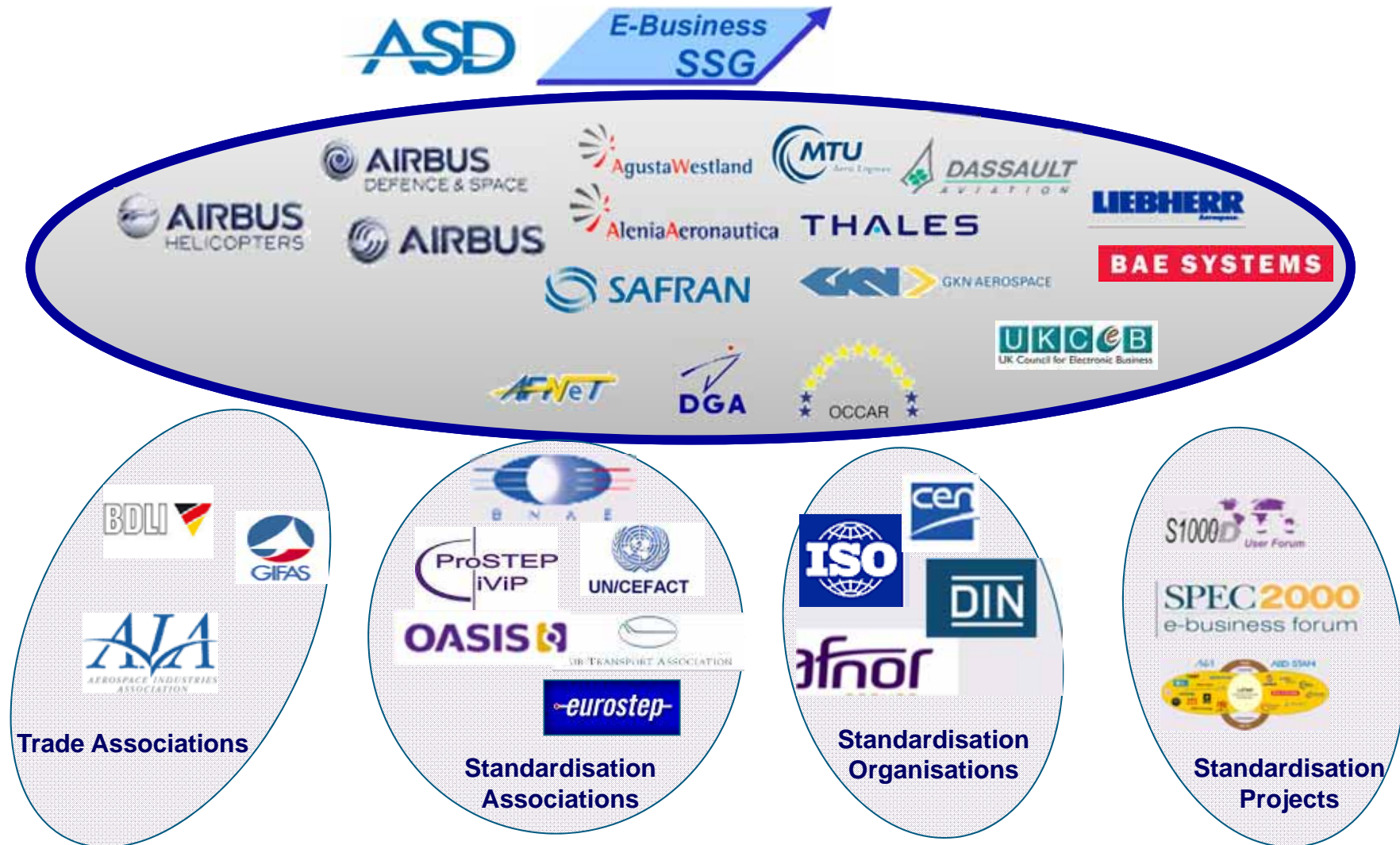
AeroSpace & Defense (ASD) European association

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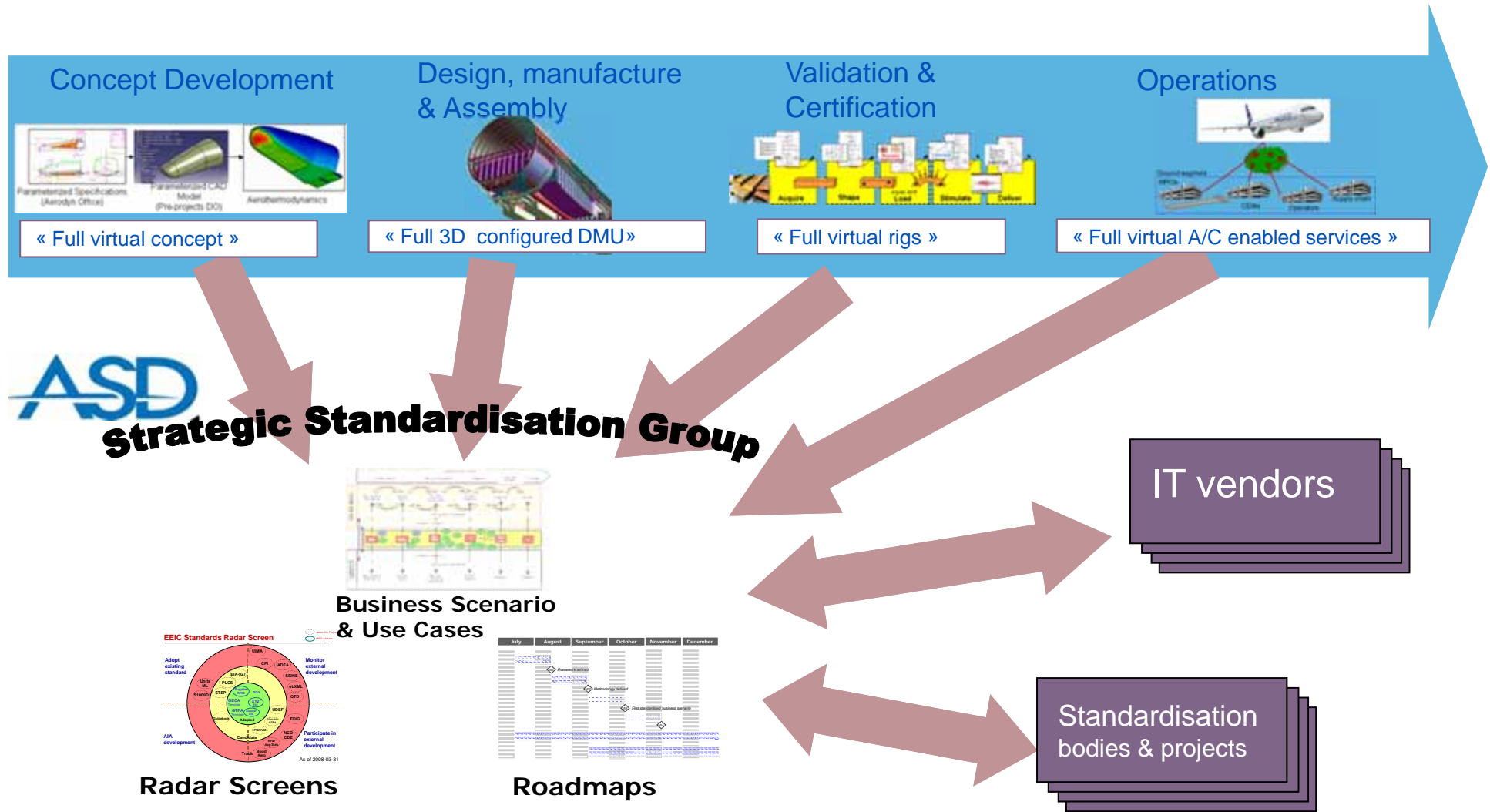
Europe ASD SSG members and links

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E-business Standards Governance

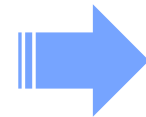
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Aerospace and Defence Industry challenges

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- **Worldwide global marketplace,**
 - **Small number of large prime contractors,**
 - **Large global multi-tier supply chain shared with other industries (automotive, etc..),**
 - **Very long product and service life cycles vs. life of software, equipment and people,**
 - **Continuous innovation in products, processes and services,**
 - **Often certification driven,**
 - **Development of new service models including electronic customer services based on connection between in-service phase and design phase,**
 - **...**
- * differentiators vs. automotive*



Prerequisite for industrial PLM solutions and services based on international open standards

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Increase coordination between A&D manufacturers, with the support of the PLM vendors, for:

- Developing **international open PLM standards**,
 - and management of their evolutions,
- Developing associated **recommended practices**
 - based on use cases and public test cases
- Setting up **Implementor Forums**
 - For interoperability testing
 - Speeding up the availability of applications with the appropriate level of quality

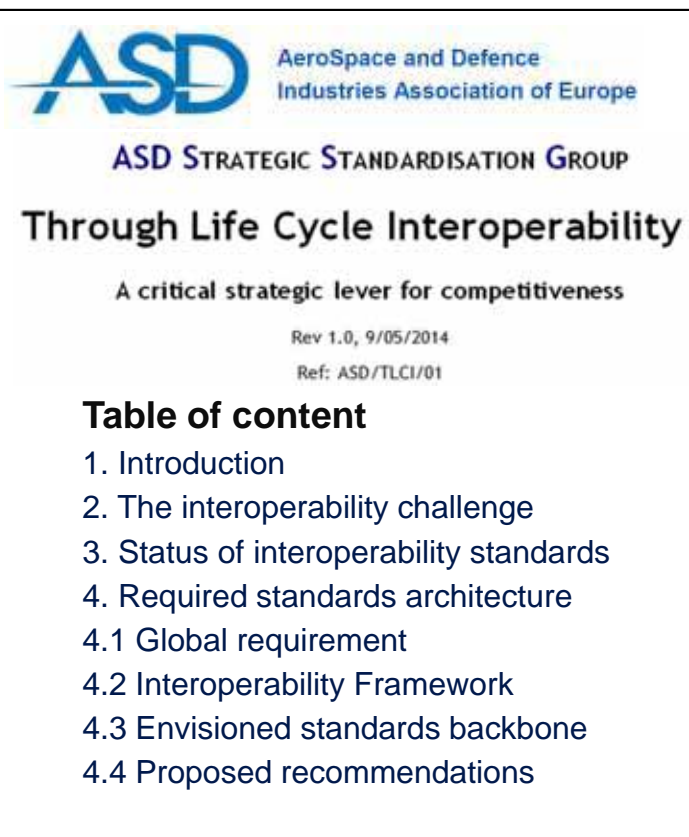
Competing standards and lack of coordination result in:

- *Increase of time / shift of availability*
- *Loss of money and decrease of Return On Investment*
- *Poorer quality and performance*

ASD SSG “Through Life Cycle interoperability” white paper a strategic lever for A&D industry competitiveness

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Vision: ‘All players of the global aerospace value network will be able to share digital information securely throughout the life of the products and services’



Objectives

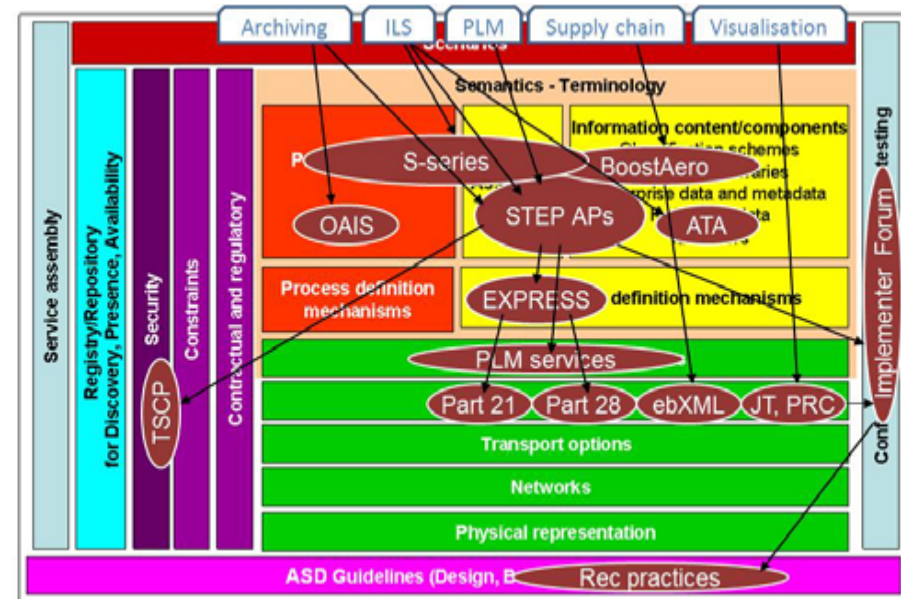
1. Identify the business requirements for A&D digital information interoperability, and analyze gaps with existing standards and practices,
2. Identify a set of coherent standards to use or to develop in order to cover the full spectrum of needs for interoperability,
3. Propose and apply governance tools at strategic and technical level (e.g. radar screen, interoperability framework, assessment process),
4. Develop a network of experts,
5. Develop liaisons with all relevant standardization organizations,
6. Identify and communicate the business benefits,
7. Seek the widest exploitation of these standards to maximise global benefits.

ASD SSG “Through Life Cycle interoperability” white paper

7 Major recommendations

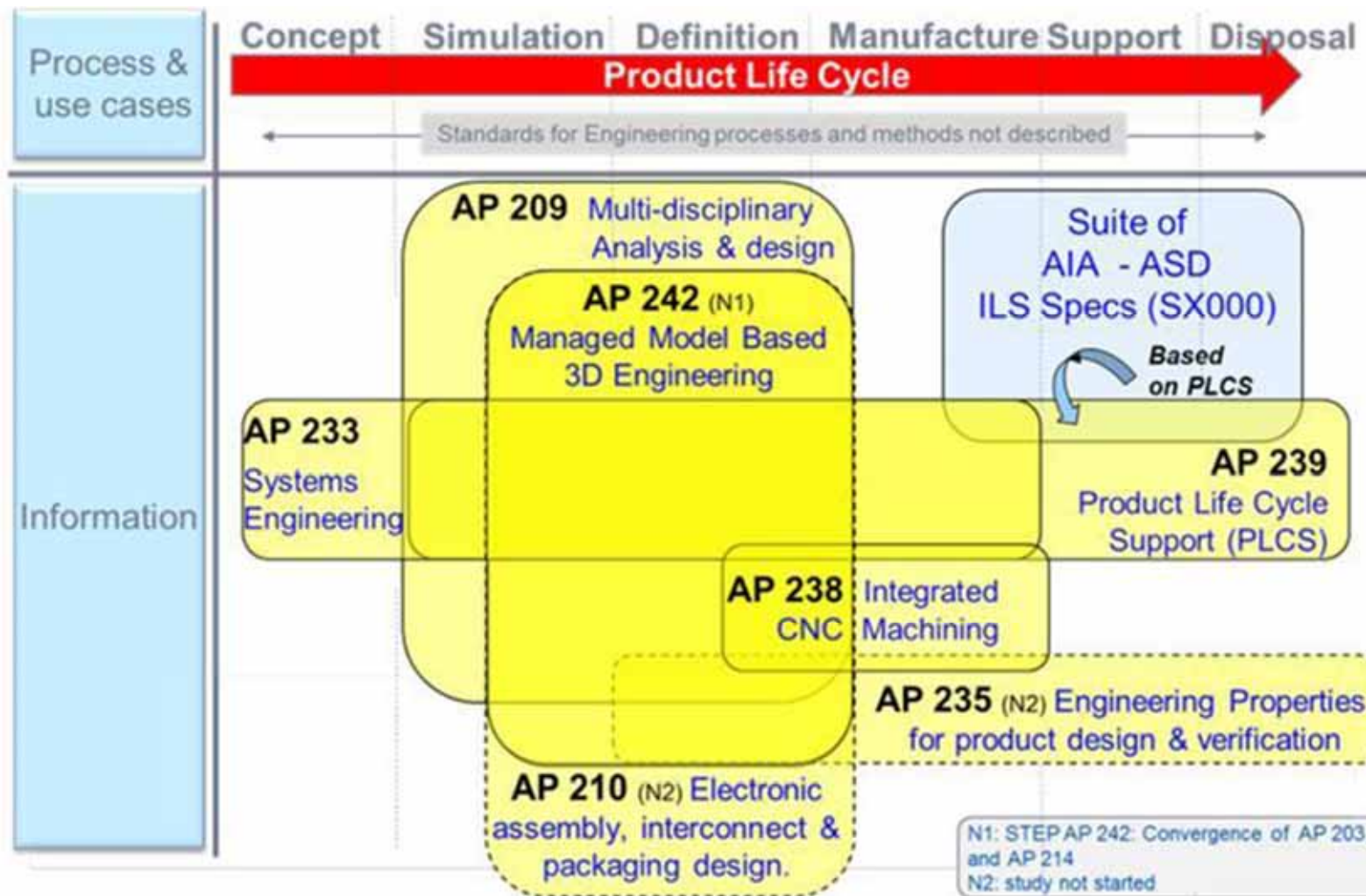
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1. Strengthen the **STEP architecture approach**
 - 1) ensure interoperability between STEP standards
 - 2) provide unambiguous implementation methods;
2. Ensure **3D visualisation** format standards **consistent with STEP standards**;
3. Ensure **common data model for the ILS** specifications **consistent with STEP AP239**;
4. Promote **ASD-AIA ILS suite of specifications** & manage **coherence with ATA specifications**;
5. Develop and test the interoperability of next generation **PDM/PLM web services**;
6. Facilitate **data interoperability in the A&D Supply Chain** and align business process in the Supply Chain;
7. Supports **implementer forums** to test and validate operational solutions.



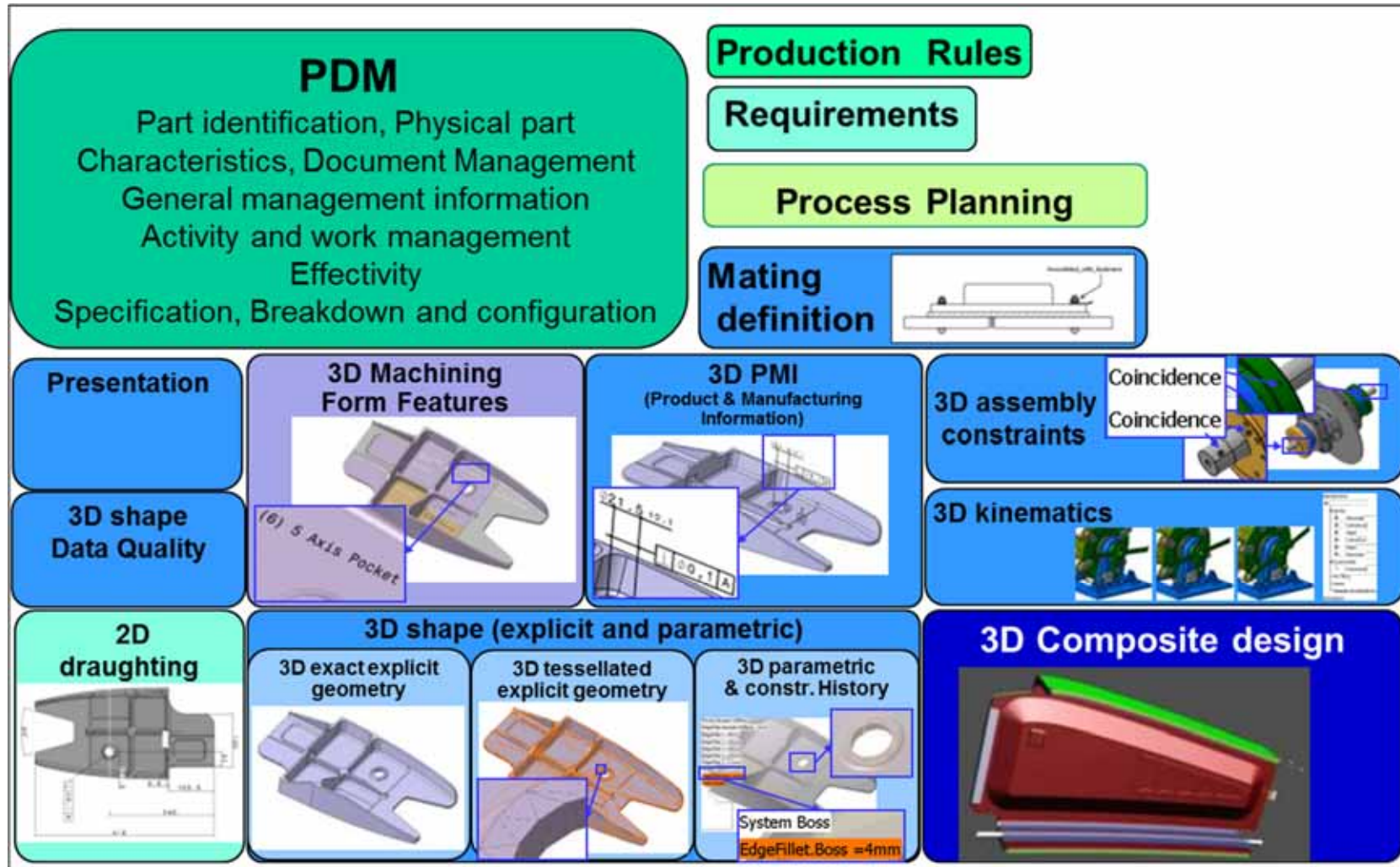
The core suite of STEP standards for PLM interoperability

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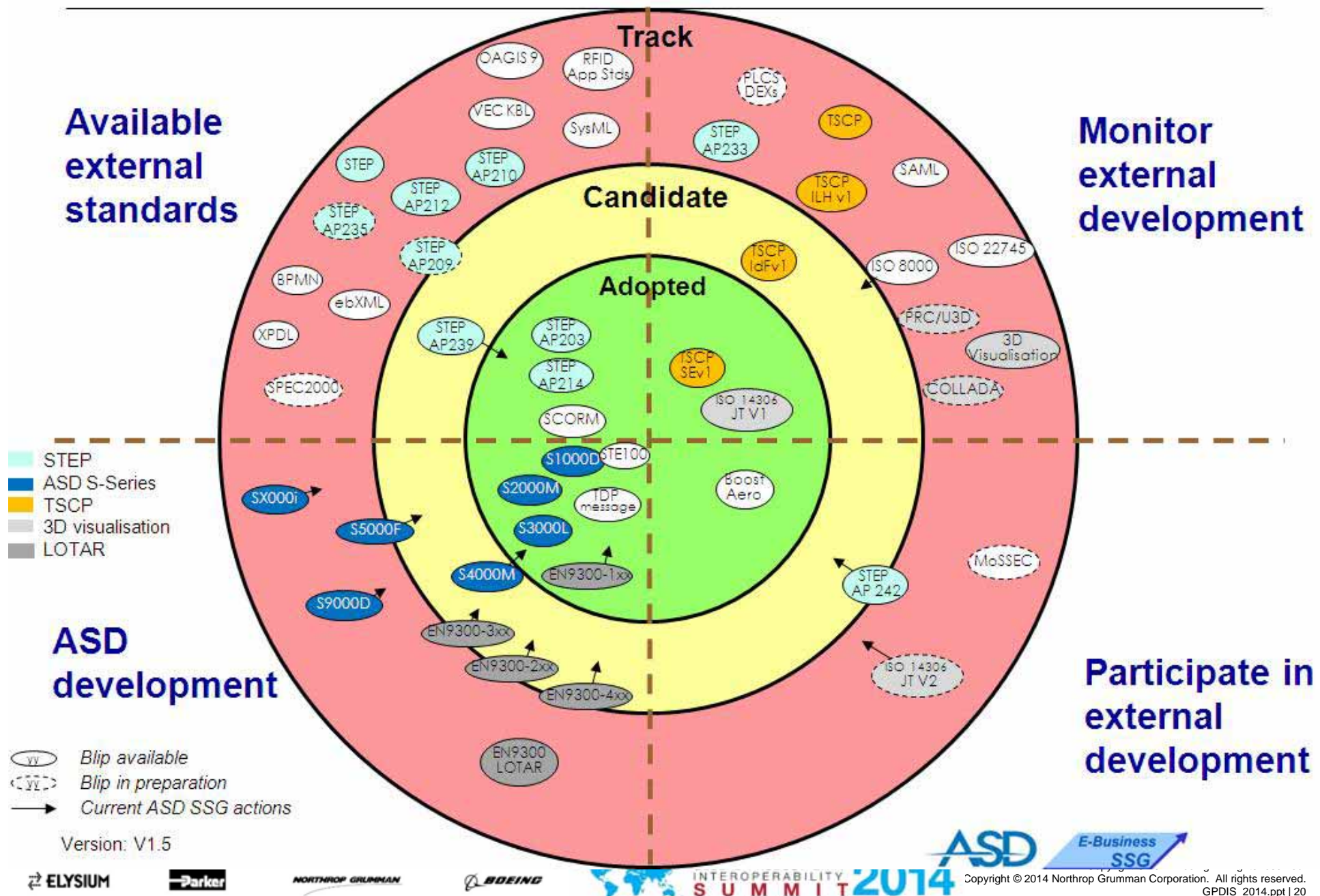


STEP AP 242 ED1: information model overview

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Radar screen



ASD SSG public web site

<http://www.asd-ssg.org/>

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ASD Strategic Standardization Group

[Welcome](#) [Terms of Reference](#) [Members](#) [Work Groups](#) [Projects](#) [Radar Chart](#) [Results](#) [Meetings](#) [Planning](#) [Publications](#)



AeroSpace and Defence
Industries Association of Europe



Parent organisations

ASD www.asd-europe.org

ASD-STAN www.asd-stan.org

Web Content Display

New!!

ASD SSG leaflet now available for download:

About ASD Strategic Standardization Group

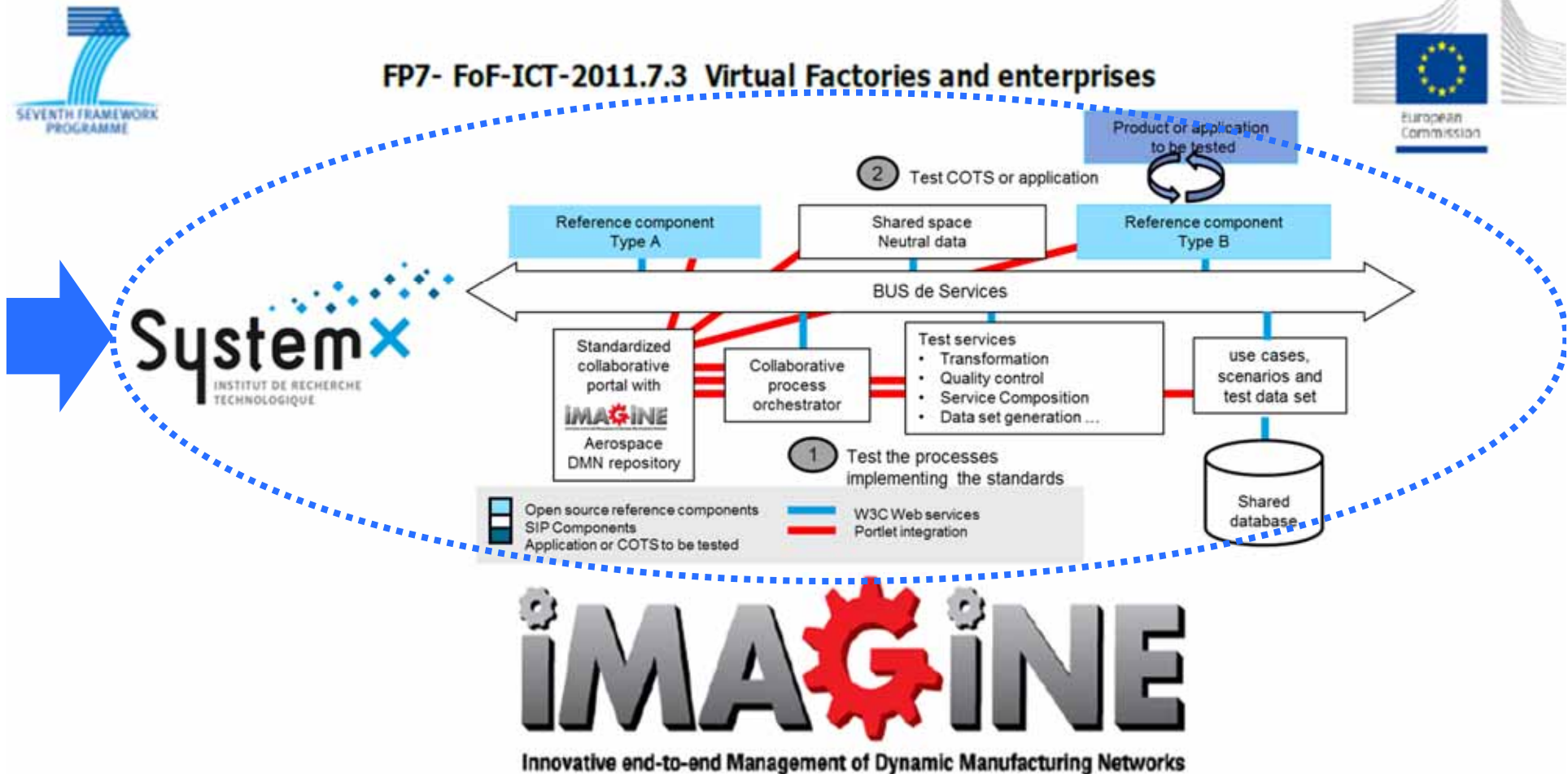
The ASD Strategic Standardization Group (SSG)

Overview

The Strategic Standardization Group (SSG) was set up in October 2008 by a group of European manufacturers, A & D associations and military governmental agency in order to share efforts of development of common A&D e-Business standards and associated harmonized European policies for operational use.

Standards & Interoperability PLM (SIP) platform European open testbed

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"Innovative end-to-end management of Dynamic Manufacturing Networks"

Next “STEPS” for the European A&D industries PLM standards

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- Speeding up the availability of **COTS applications** for:
 - **STEP AP 242 E1 “Managed Model Based 3D Engineering”**
 - **STEP AP 209 E2 “Multi-disciplinary analysis and design”**
 - **STEP AP 233 “Systems Engineering”**
- **Development of STEP AP 242 edition 2**
 - Extensions to: electrical harness, additive manufacturing
 - Finalization of the PDM harmonization with AP 239 ED3 PLCS
 - Enhancements of: 3D PMI, Composite design, 3D geometry, etc
 - Successful kickoff confcal on the 2nd of Sept. 2014
- **Preparation of STEP AP 239 ED3 PLCS project**
 - Preparation of an international workshop for a white paper
- **Launch of the MoSSEC project**
- **Continuation of the AIA – ASD suite of ILS standards** in consistency with ATA e-business
- **Extension of the scope of the NAS / EN 9300 LOTAR standards**