



*PDT Europe – November 18-19 2009 –  
Versaille – Paris, France*

*The ASD SSG work*  
**A proposed approach for  
standards governance**

*18 November 2009, 10.40*



***Introduction: Thomas Drehmel, Vice-Chairman ASD SSG***  
***Presenter: Nicolas Figay, ASD SSG member***



*The ASD SSG work*

**A proposed approach for standards governance**

# Agenda

**10.40 Welcome and introduction - Thomas Drehmel, Vice-Chairman  
ASD SSG**

**10:50 Presentation: Tools for standards governance- Nicolas Figay,  
Member of the ASD Strategic Standardisation Group (SSG)**

**11.20 Discussion**

**11.45 Conclusion and the way ahead**



# Introduction

Thomas Drehmel



# Content

## E-Business

- Challenges
- Opportunities
- Issues

## ASD Stan proposal

- ASD governance structure for e-Business Standards
- Participants
- Contacts



## ***E-BUSINESS: CHALLENGES***

- Efficient inter-enterprise digital collaboration is required:
  - Improved competitiveness among the major members of industry
  - Increasing use of digital product models
    - from the preliminary design to customer support
  - Proliferation of proprietary formats for each e-business projects
  - New contract models
    - more and different information to flow
      - across the supply chain
      - end-to-end and through life of the product



## ***E-BUSINESS: OPPORTUNITIES***

- Numerous Standards have been and are being developed to address digital collaboration and interoperability issues:
  - Different standardised business processes
  - Standardisation at different levels; information, process, IT, deployment
  - Tailoring for contract needs

*“The great thing about standards is that there are plenty of them to choose from”*

- For standards, global proliferation
  - Official bodies
  - Communities of interest
  - Conferences
  - Trade Associations and individual industries
- Linking standards together is not obvious
  - For simultaneous usage
  - For efficiency

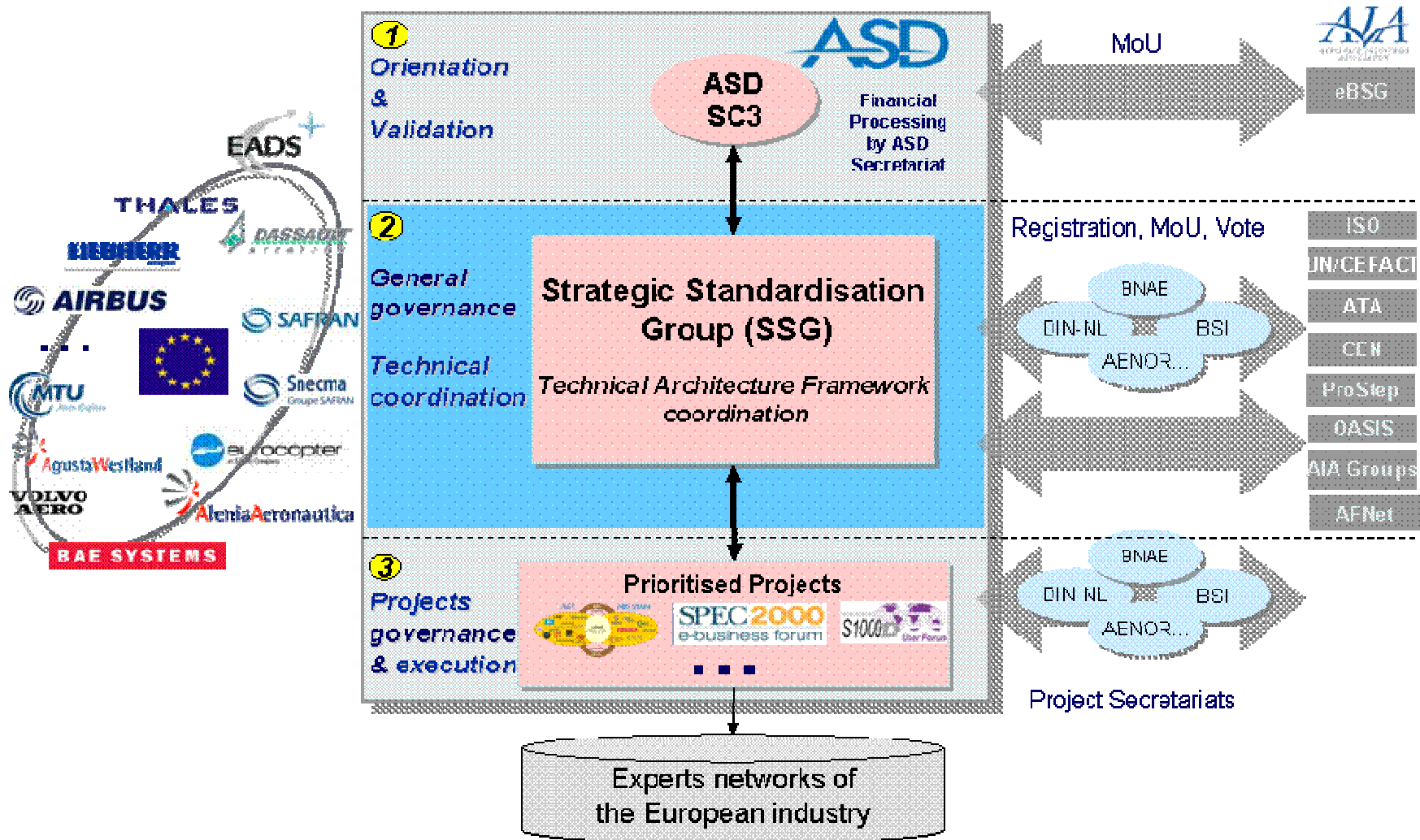
**How to select, assess, develop and govern accurately eBusiness PLM standards for Aerospace & Defence domain in Europe?**



## ***E-BUSINESS: ASD response***

- **Key ASD objective: to promote European Aerospace & Defense contributions to international standards and to develop international cooperation**
- **ASD 3 level governance standardization structure** for e-business created supported by the national trade associations and industry to:
  - Ensure the availability and maintenance of the **necessary e-Business standards for and by the industry**
    - Co-ordination of standardization efforts done by the different stakeholders (International standardization bodies and projects, Industries, Programs...)
  - Ensure the **overall consistency** of the adopted standards
    - Interoperability framework for governance of a consistent set of standards
    - Pushing standardization and harmonization efforts
  - Ensure **development, recognition, adoption** of the standards
    - Links with major industrial projects and initiatives for eBusiness PLM collaboration
    - Dissemination, Communication, Implementor Forum, evangelisation, Networking

# ASD governance structure for e-Business Standards





## ASD SSG participants

AFNET	EADS IW
AGUSTA WESTLAND	EADS MAS
Airbus	Eurocopter
ALENIA Aeronautica	GIFAS
ASD Stan	MTU
Astrium	SAFRAN
BAE Systems	SIMMAD
BDLI	SNECMA
BoostAero	SOGITEC
CASA	THALES
DASSAULT AVIATION	UKCeB
EADS	Volvo Aero

**SSG seeks the widest participation and contributions!**



## *Some contacts*

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Yves Baudier, Chairman ASD SSG, [yves.baudier@eads.net](mailto:yves.baudier@eads.net)

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Thomas Drehmel, Vice-Chairman ASD SSG (SSG interface with A&D industry) ,  
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Howard Mason, Vice-Chairman ASD SSG (SSG interface with AIA ), Chairman ISO TC  
184/SC 4 [Howard.Mason@baesystems.com](mailto:Howard.Mason@baesystems.com)

Jean-Yves Delaunay, Vice-Chairman ASD SSG (SSG interface with ProSTEP iViP & PDES  
Inc) , LOTAR Project Manager

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Nicolas Figay, ASD SSG Participant, member of AFNOR IDMI (mirror of ISO STEP)  
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# **Presentation: Tools for standards governance**

*Nicolas Figay – EADS IW*



## Content

Shared vision

Shared approach

e-Business Standards Governance structure

Coherent set of Standards working together

Monitoring of all e-Business standards

Architecture framework

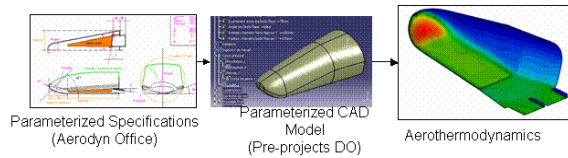
Conclusion: key messages



# Shared Vision

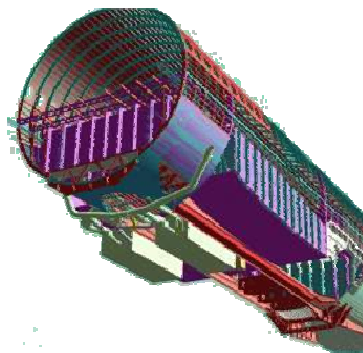
## Typical Business Drivers: Innovation

### Concept Development



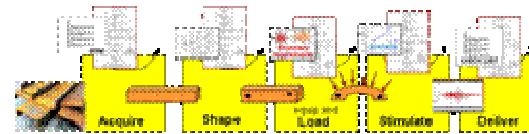
« Full virtual concept »  
deployed with Disciplines

### Design, manufacture & Assembly



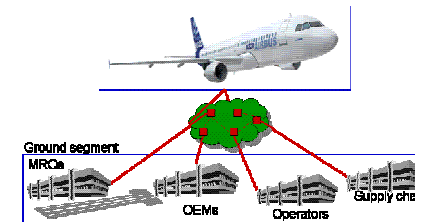
« Full 3D configured DMU »  
deployed with Sub-system and sub-assembly Suppliers

### Validation & Certification



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

### Operations



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



## Shared Vision

### Typical Business Drivers: Risks reduction

- Globalization
- Digital collaboration within extended and virtual enterprise
  - ⇒ Digital break
  - ⇒ Cost of evolution and maintenance of effective digital infrastructures
  - ⇒ Heterogeneous practices, process and platforms



## Shared Vision

Evolution of role of standardization for Aerospace

### Paradigm Shifts in Standardization

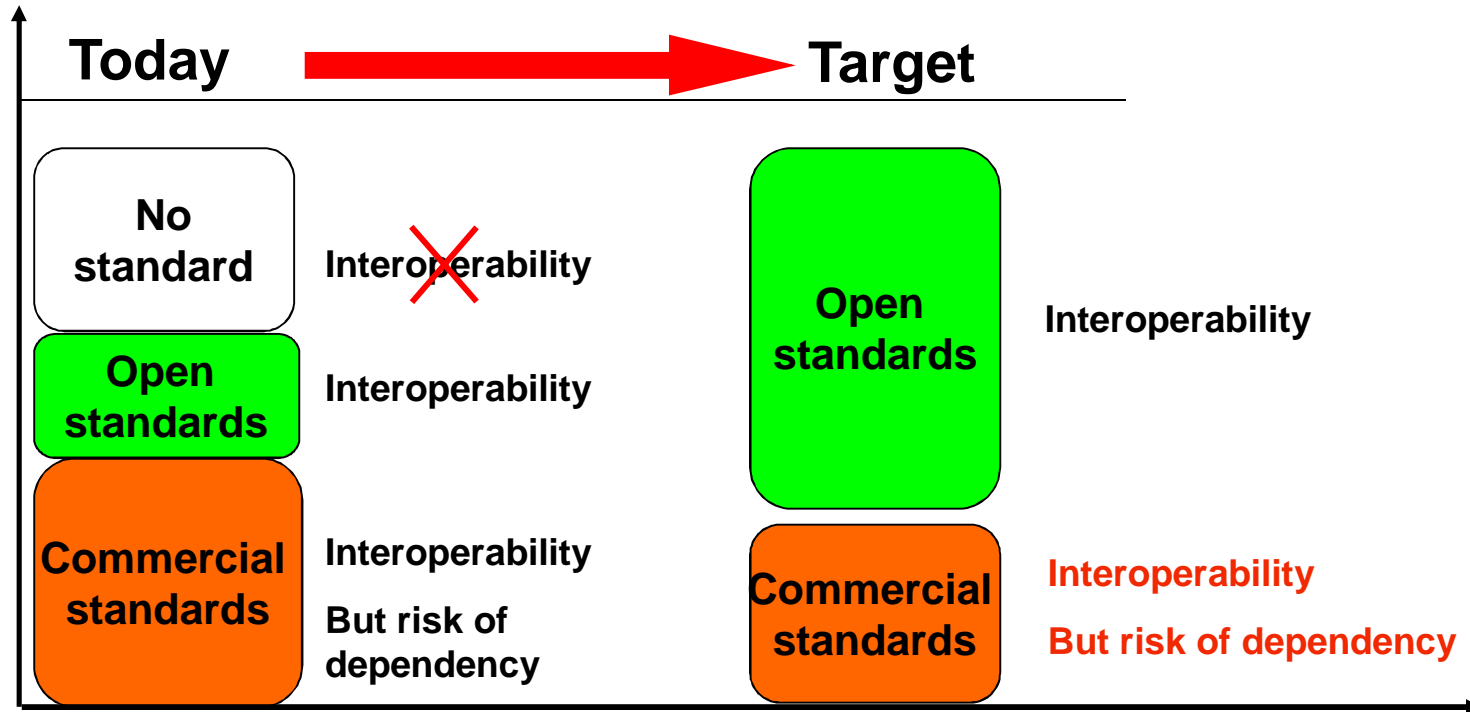
<b>Company Standards</b>	—————>	<b>Industry &amp; Partner Standards</b>
<b>Technically Driven</b>	—————>	<b>Business Driven</b>
<b>Domestic Stakeholders</b>	—————>	<b>Global Stakeholders</b>
<b>Vertical (single issue)</b>	—————>	<b>Horizontal (e.g., ISO9000)</b>
<b>Paper-based</b>	—————>	<b>E-business based</b>
<b>Aerospace – unique</b>	—————>	<b>Non-aerospace controlled</b>

*(AIA - The Future of Aerospace Standardization  
Overview of the report - 2005)*



## Shared Vision

Open Standards reducing industrial risks

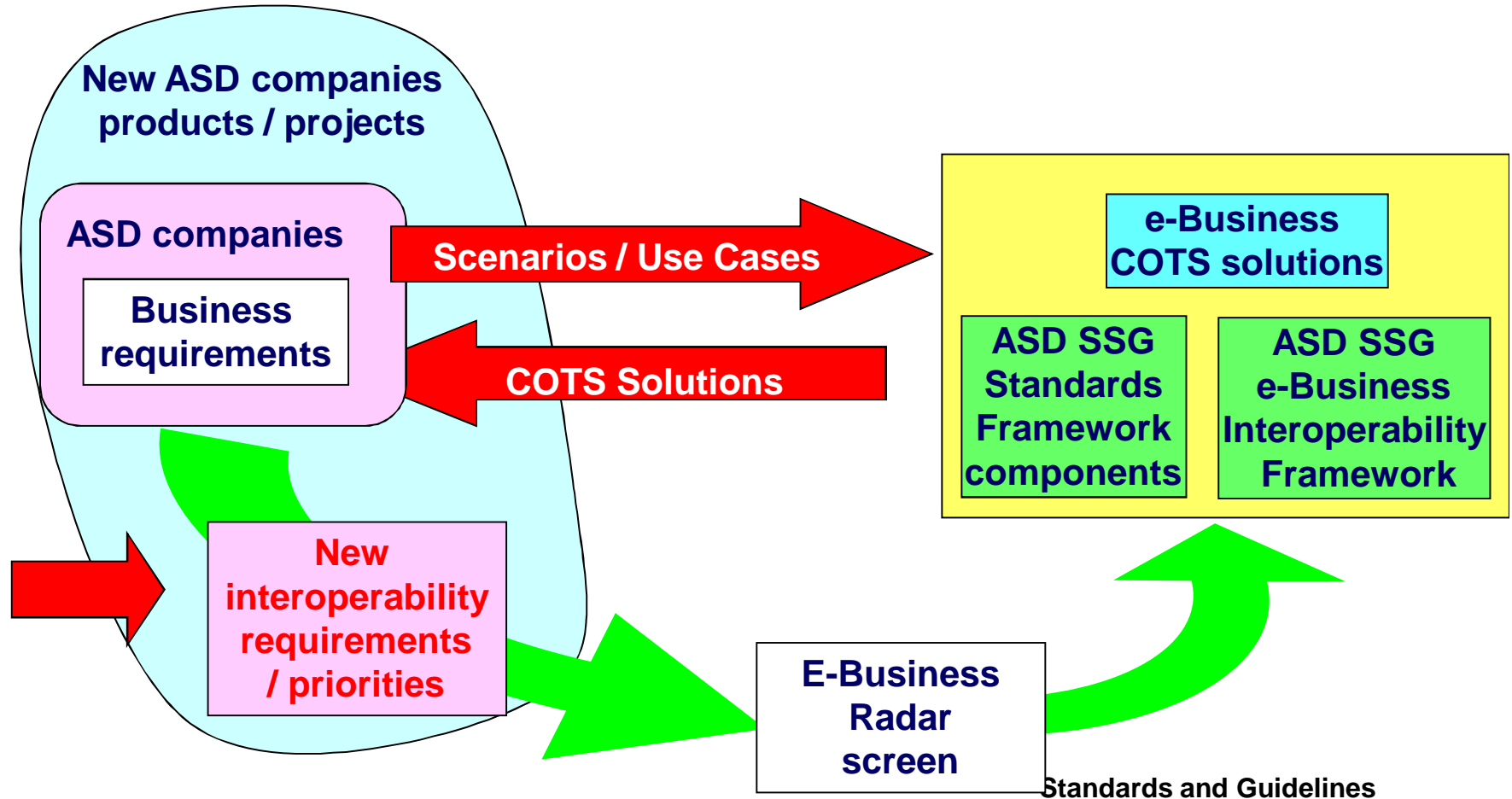


- Improved efficiency of interoperability of eBusiness information
  - within companies,
  - within Extended Enterprise,
  - with the customers
  - and along the whole product lifecycle



# Shared Approach

Methods for establishing prior Standardization projects



Monitoring of all e-Business standards  
(anticipation of new needs)



## Shared Approach

### Business Scenarios and use Cases templates (1/2)

- Business scenarios are used to provide an industrial context for the different use cases
- Business scenarios have to be standardised:
  - template to describe the context
  - formalism to represent the business scenario
- Use cases allow to describe the detailed functional scope and should allow to specify the need for standardisation
- Use Cases have to be standardised:
  - template to describe the use cases
  - formalism to present use cases



## Shared Approach

### Business Scenarios and use Cases templates (2/2)

#### Description of a use case (template)

Name – meaningful title

Description

Process diagram

Scenario initiation

Sequence of events within activity

Actors

Controls

Internal decision points

Decision criteria for any optional paths in the workflow

Information flows

Scenario results

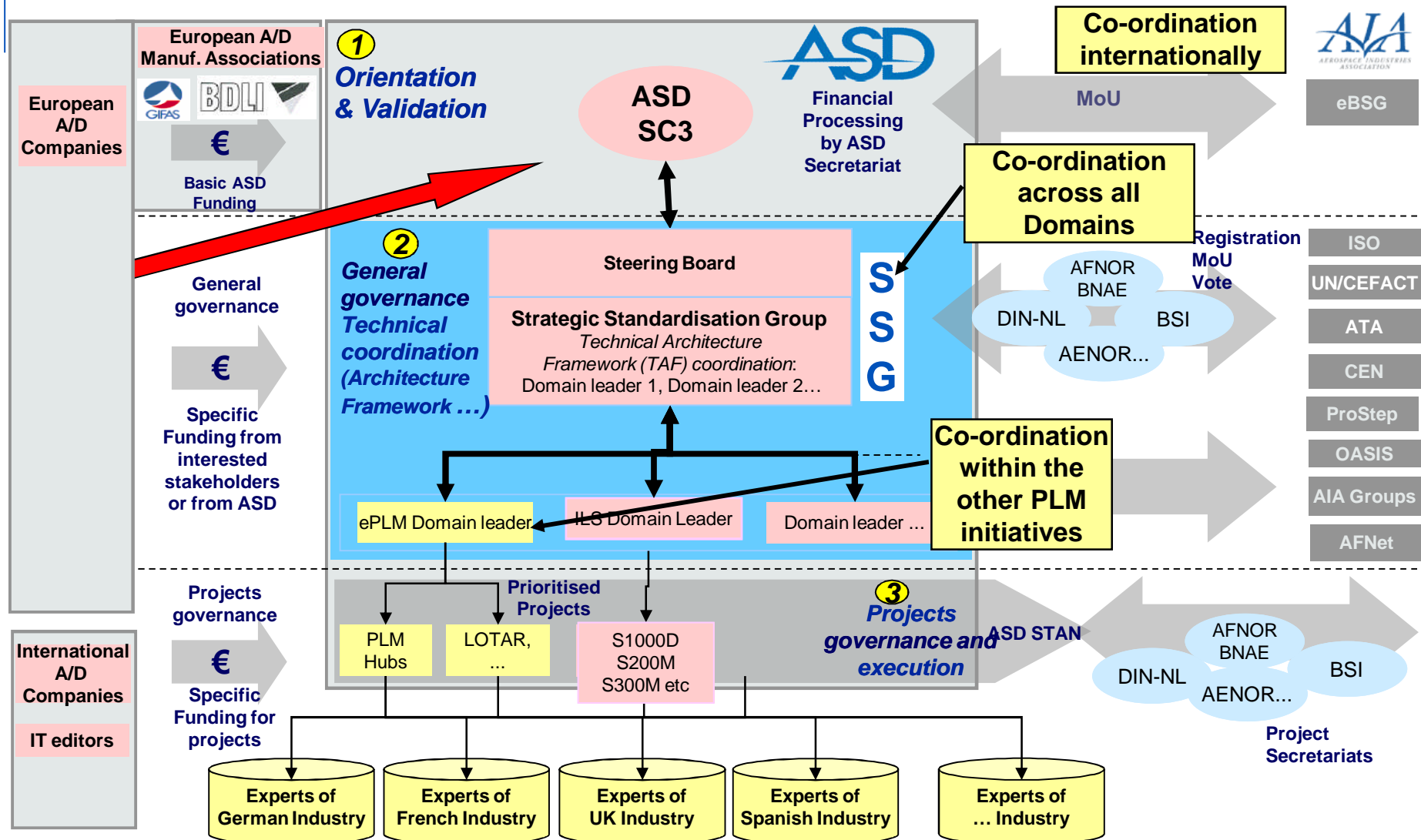
Exception handling

Performance requirements/Service level agreements



# e-Business Standards Governance structure

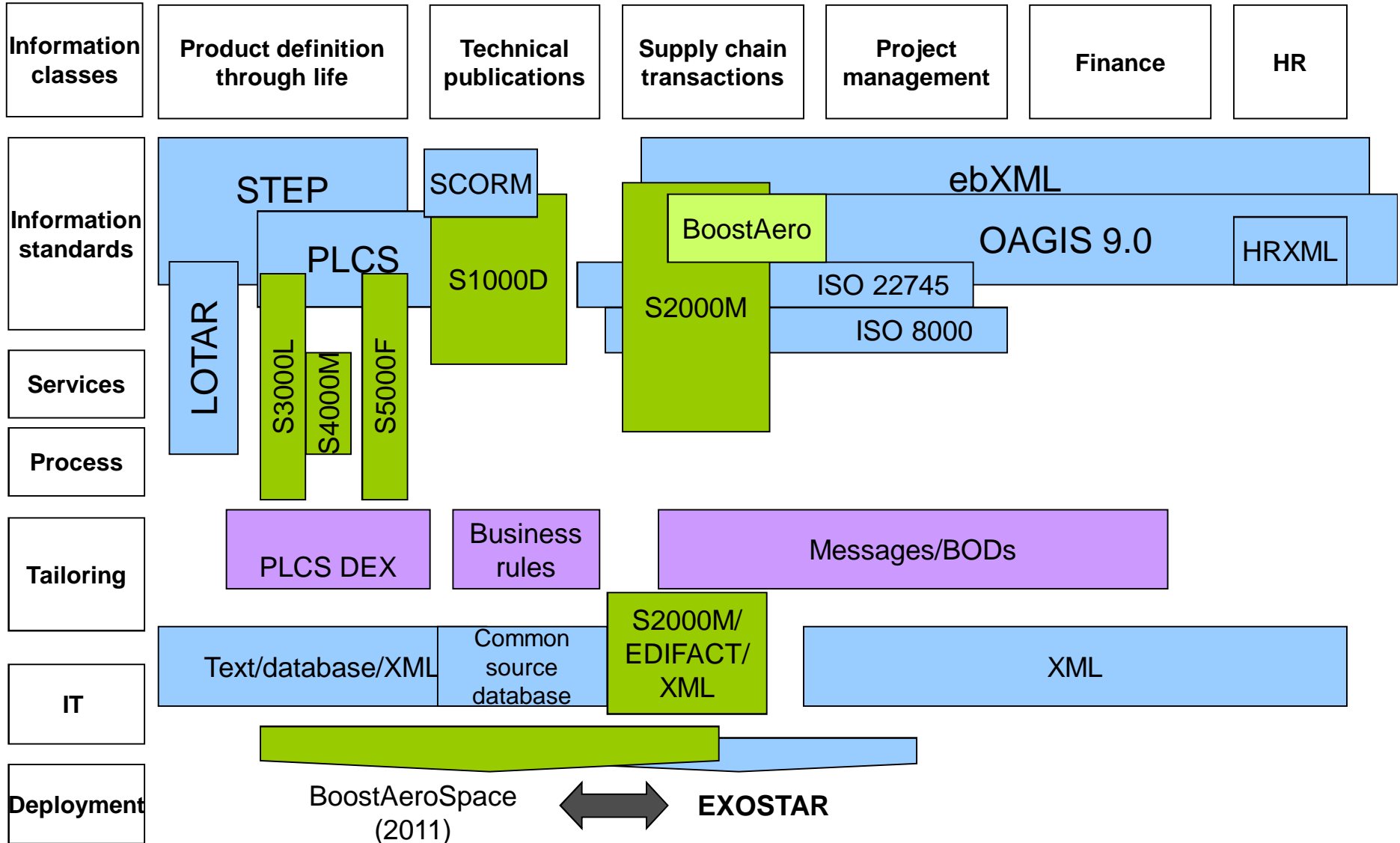
## Domains and Co-ordination maps





# Coherent set of Standards working together

## Cartographies of standards





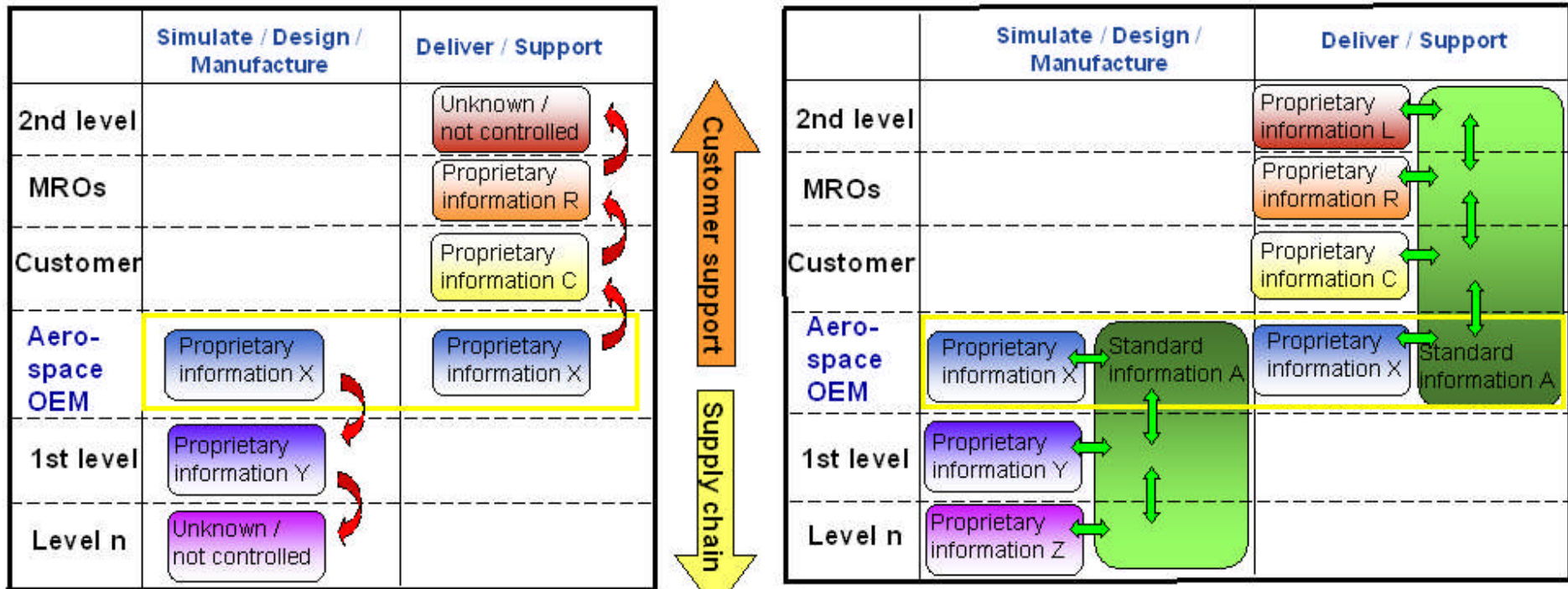
# Coherent set of Standards working together

## Aligned AS&D Programs roadmaps ...

Today



Objective



OEM:  
Original Equipment Manufacturer

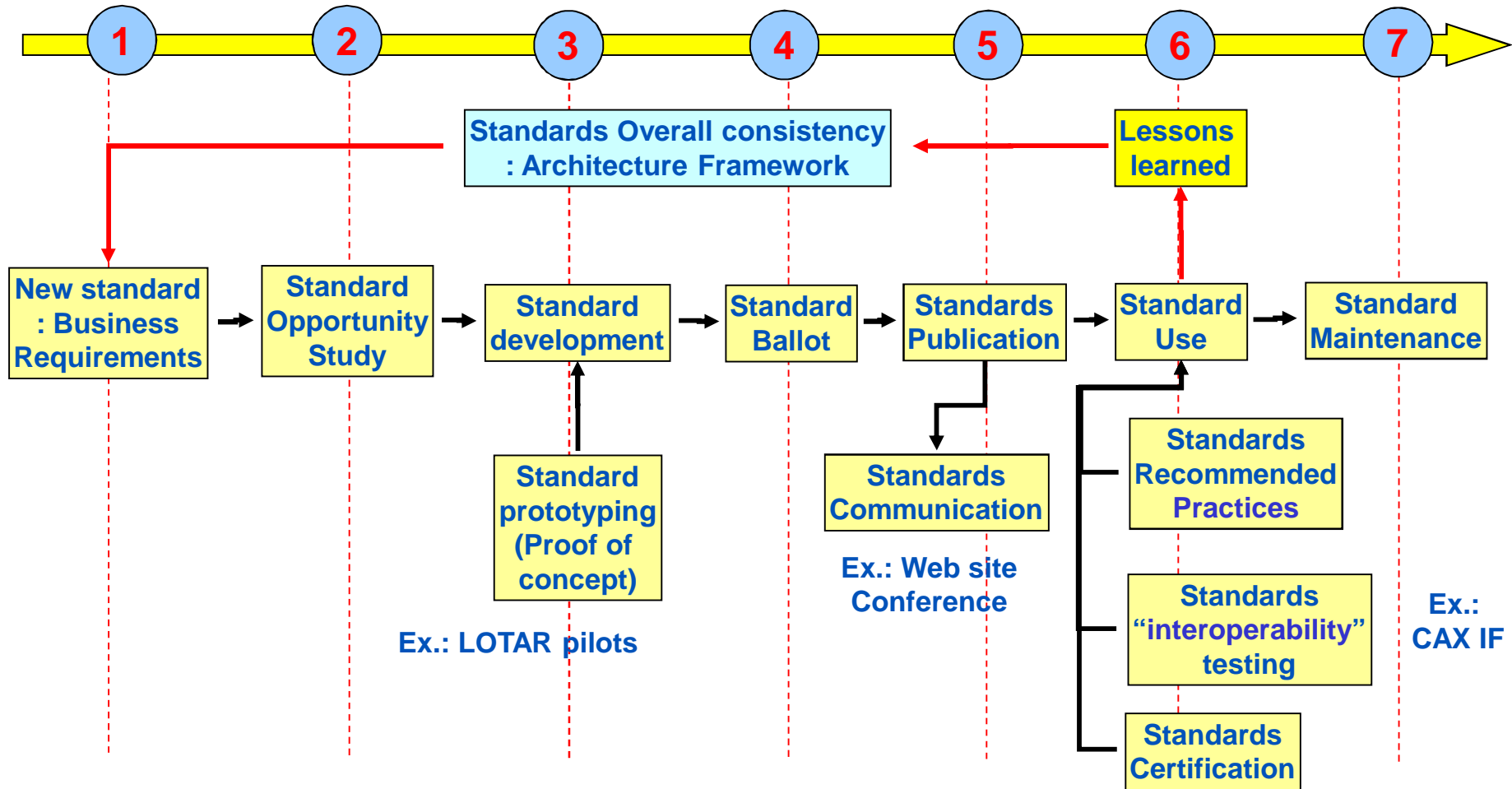
Digital chain broken

**eBusiness information interoperability shall be based on open standards**

Note – Interoperability = ability to EXCHANGE / SHARE / USE / VISUALIZE and PRESERVE information



# Coherent set of Standards working together ... and eBusiness Standards life cycle





## Monitoring of all e-Business standards

### The AIA “radar” screen

- Need to decide the appropriate level of involvement according to the business requirements / business needs and the associated roadmap
- Need to take into account:
  - The level of effort of development (cost, risk, ...), for the right time,
  - The level of involvement in the standardization effort: E.g.:
    - Adopt existing standard
    - Monitor external development
    - Participate in external development
    - ASD Development
  - The level of acceptance by the community and the IS vendors
    - European / international standard,
    - aerospace & defence (E.g. ISO TC 20) versus general standards (E.g. ISO TC 184)

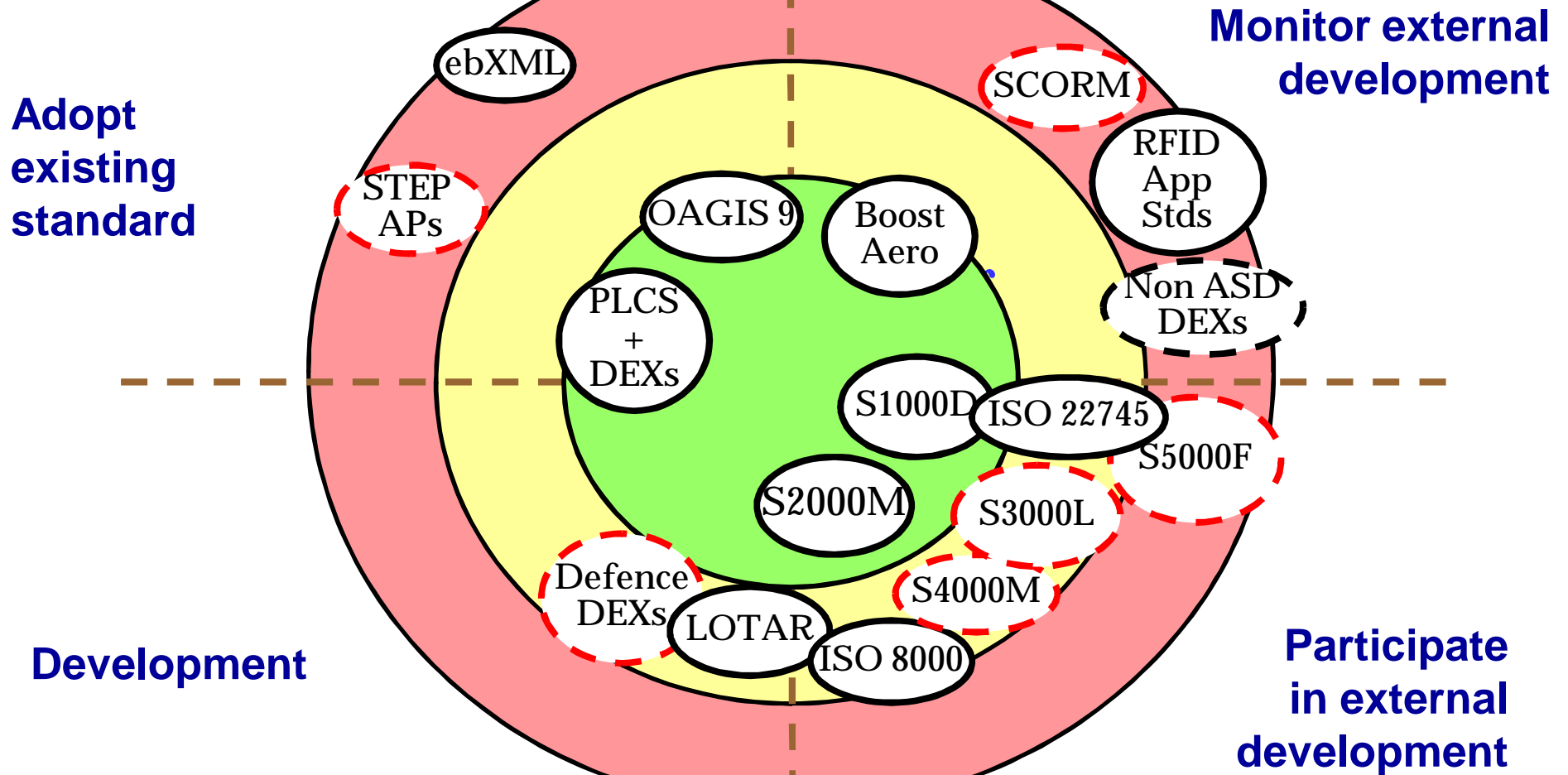


# Monitoring of all e-Business standards

The AIA "radar" screen applied to ILS scope (draft under review)

Track Candidate Adopted

Active ASD Project



With acknowledgement to the Aerospace Industries Association

2009-09-23



# Monitoring of all e-Business standards

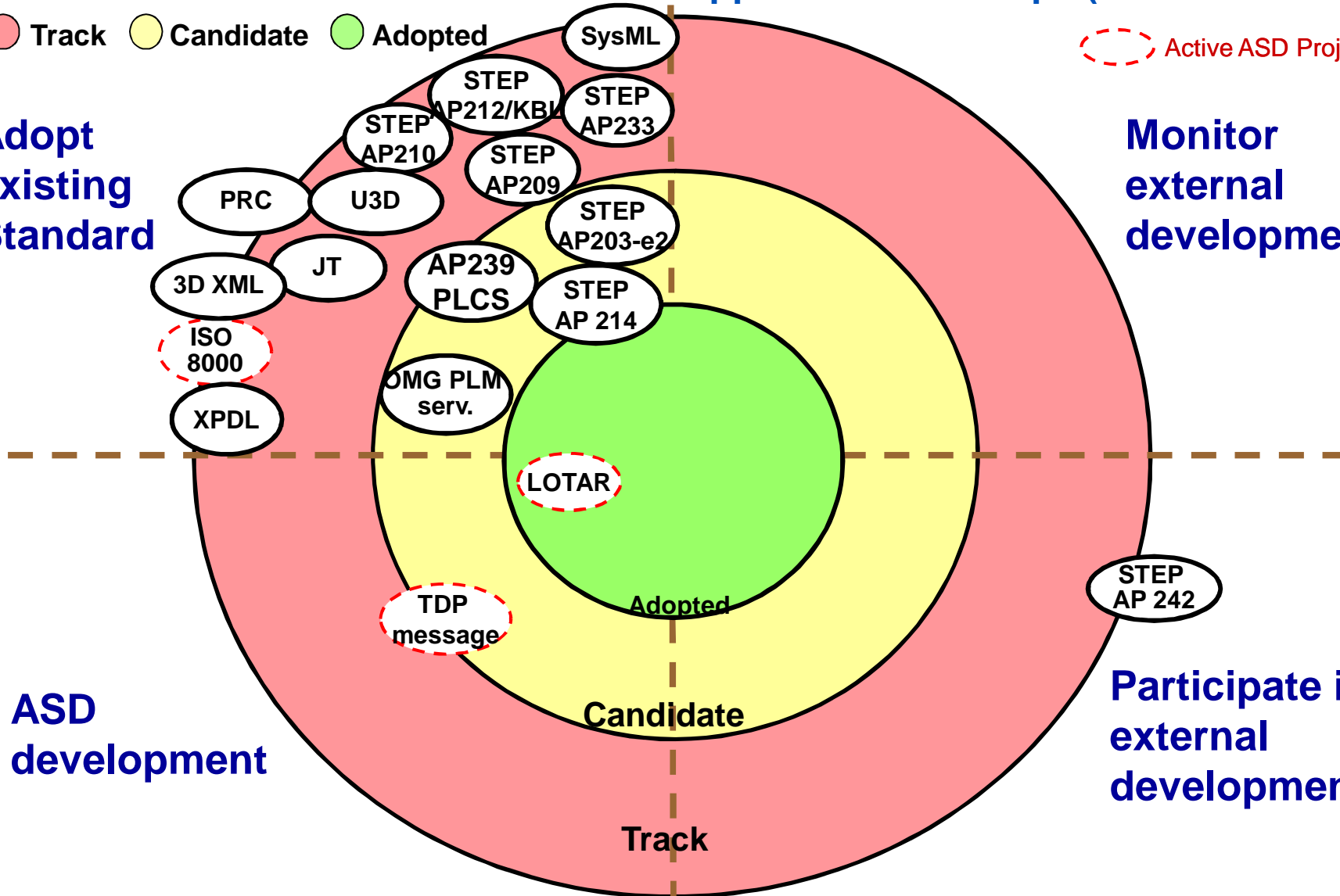
The AIA "radar" screen applied to PLM scope (draft under review)

● Track ● Candidate ● Adopted

○ Active ASD Project

Adopt existing Standard

Monitor external development



ASD development

Participate in external development

Track

Candidate

Adopted



## Information behind “Radar blip”

**Abstract**

**Responsible organization**

**Lead Organization within ASD**

**Other stakeholders – by function/organization**

**Business Justification**

**Description of activity/deliverables**

Activities

Deliverables

Assumptions

**Business benefits**

**Location in ASD SSG Framework**

**ASD SSG Action Plan**

**ASD SSG Status (updated)**

**Adoption Plan**

***SSG adoption statement***

***ASD recommendation***

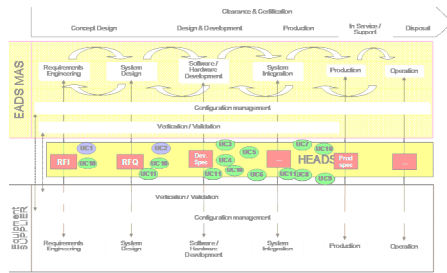
**Link to a standards host site**

**Link to supporting material**

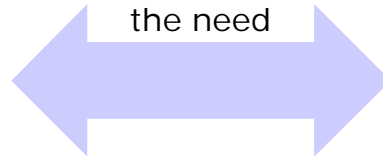


# Architecture framework: organizing the tools to master business requirements and consistency

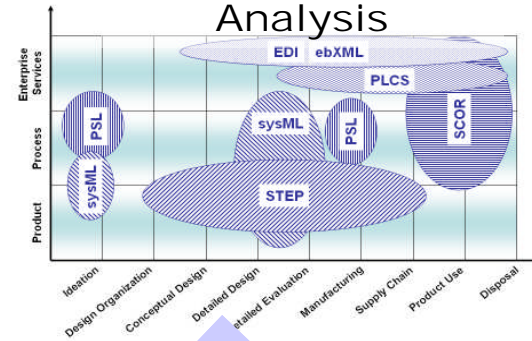
## Business Scenario & Use Cases



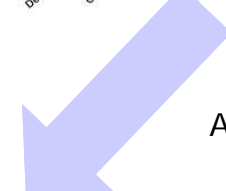
Identify & describe  
the need



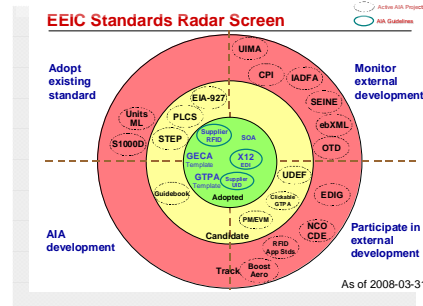
## Life Cycle Gap Analysis



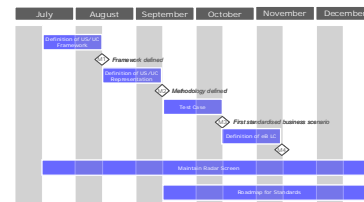
Address the need



## Radar Screen



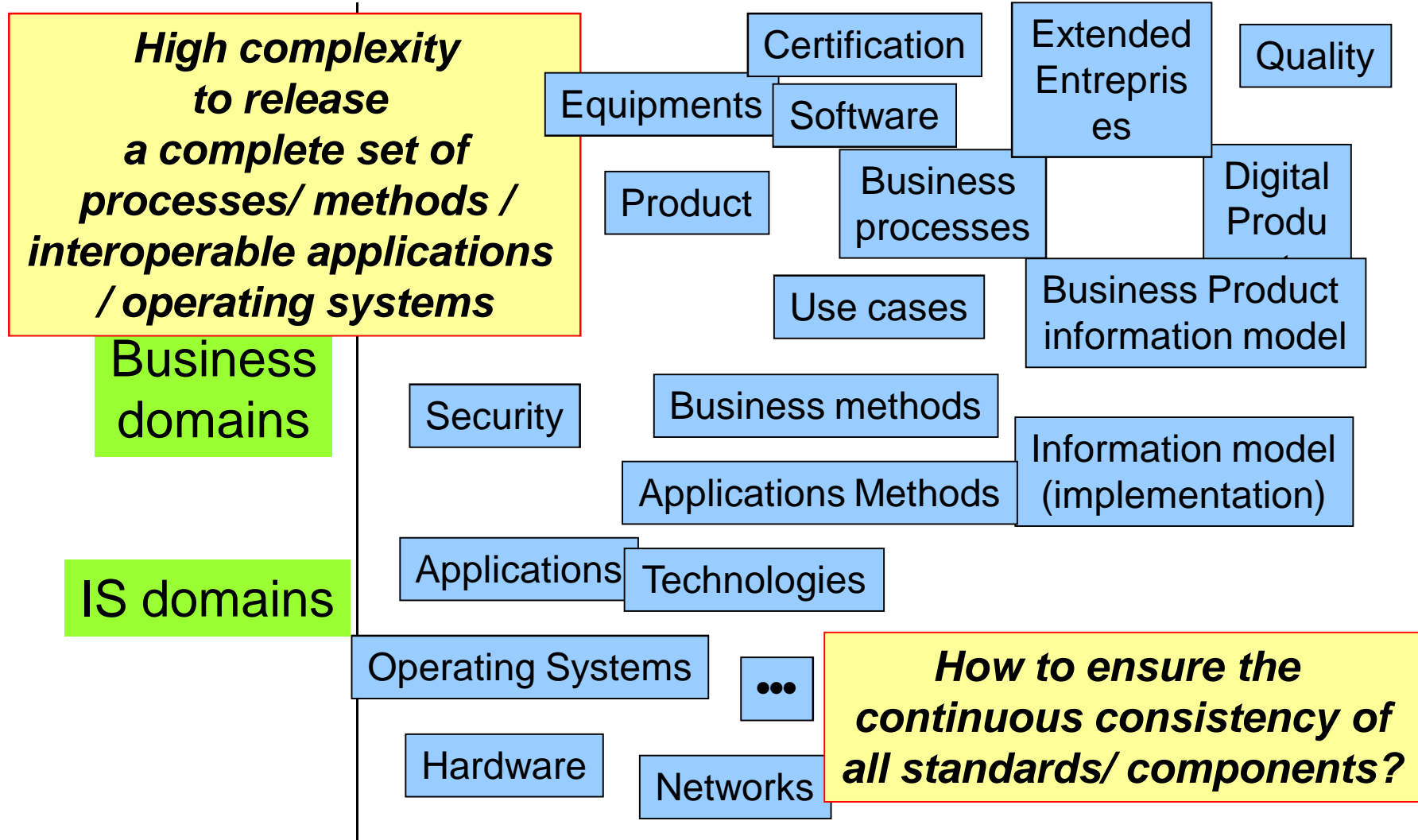
Roadmap



Develop standards & policies



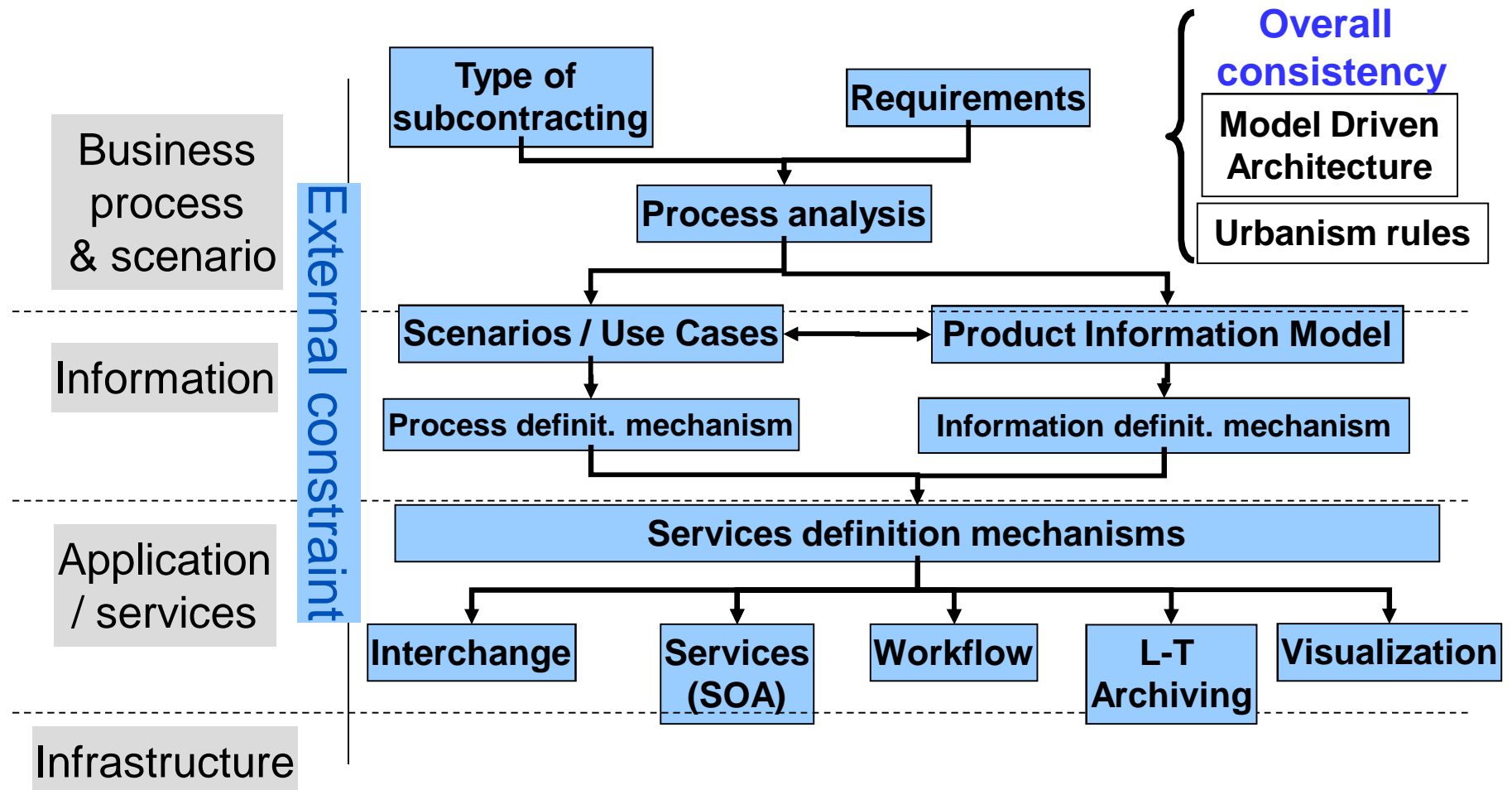
# Architecture framework: managing complexity and ensuring coherency of different kind of standards as components





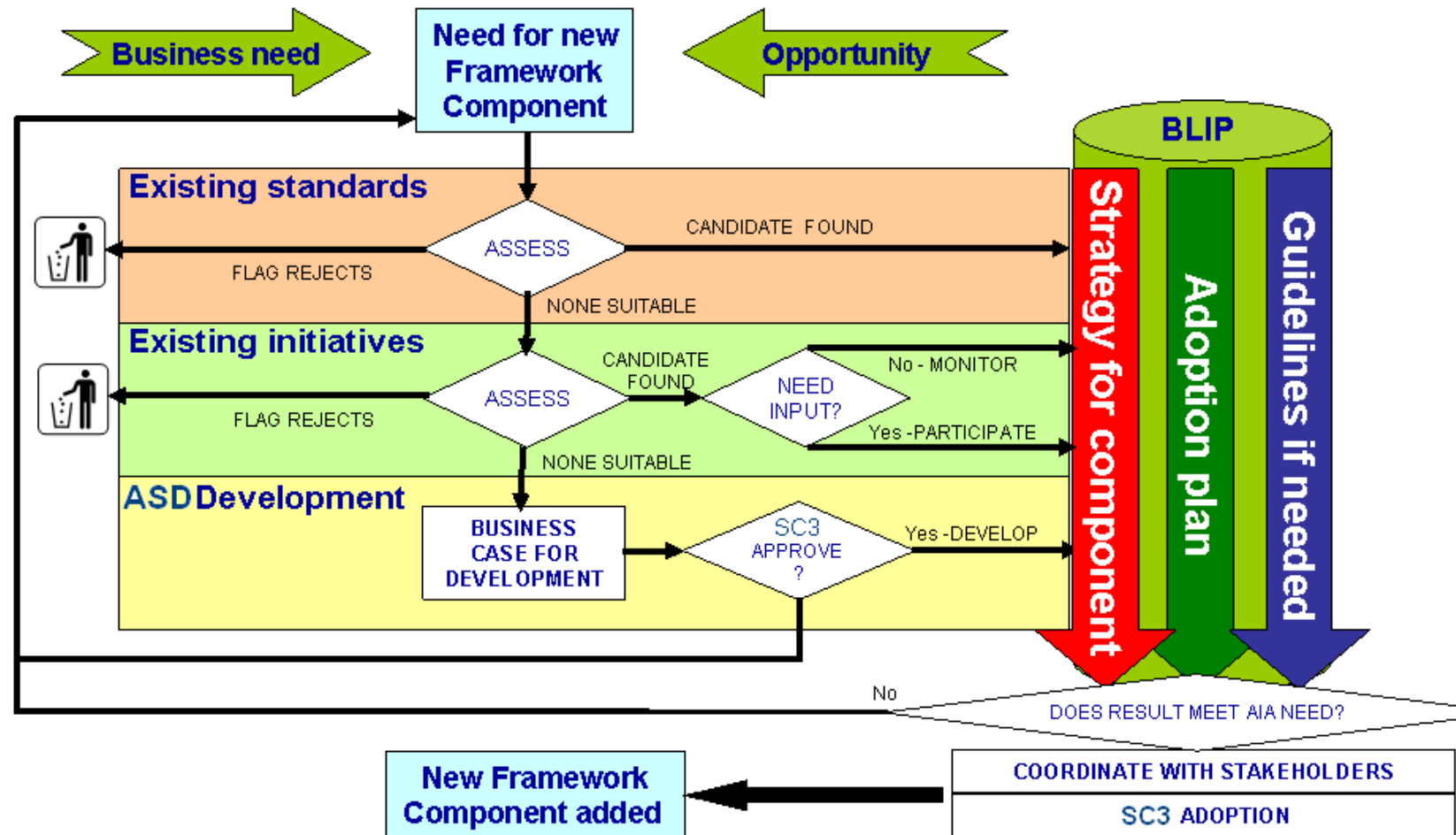
# Architecture framework: layered approach proposal for the different standard components

Different processes and technologies for different types of integration / collaboration for the different types of organizations But, same overall method,





# Architecture framework: process to add a component to the framework





## ***Conclusion: Key messages***

- **A coherent set of e-business standards is being identified, assessed, developed and implemented in answer to European Aerospace, Space & Defence Industry needs**
- **ASD has responded through the creation of the Strategic Standardisation Group (SSG)**
  - **Supported by national trade associations and ASD companies**
  - **Co-ordinated with US activities**
  - **Significant work in progress**
- **Numerous tools are being developed in order to support ASD SSG roles, for which a first version should be made available by the end of the year**
- **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”**
- **Coordination and networking was initiated**
- **SSG seeks the widest participation and contributions!**



## **Contacts**

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# Debate & Questions