

S1000D

  
ATA e-BUSINESS PROGRAM

  
AJA  
AEROSPACE AND DEFENCE  
INDUSTRIES ASSOCIATION

  
ASD  
AeroSpace and Defence  
Industries Association of Europe

# S1000D Modularization Task Team

S1000D Steering Committee  
2012 User Forum  
Jan Haslam  
SMTT Chair



*S1000D User Forum 2012*  
*June 18-21, 2012*



# Background

- S1000D community merged diverse use groups (defense and civil aviation)
- Users concerned about complexity and growth
- SC and Council concerned about stability
- Council meeting early 2010:
  - Vision, Mission, and Goals

# Vision, Mission, & Goals

- Employ a modular approach
- Focus on global requirements and constructs
- Stability
- Maintain Data Module centricity
- Support information exchange
- Leverage other standards
- Ease of implementation and contracting

# Size and Complexity

- As other use communities have added requirements the specification has grown considerably
  - Existing self-contained data modules
  - Addition of repository-dependent data modules
  - Each new mechanism has added more decision points
    - Opportunity for different methods
  - Continuation down the same path will only add further volume and complexity whilst being unresponsive to needs

# Specification Growth & Complexity

## CIR Enhancements

- incremental update
- applic externalization
- Documentary Info CIR ...

Container-Alternate extension

IC and SNS extensions

Generic IPD

Service Bulletin enhancements

CMM enhancements

Fault enhancements

## Issue 4.1

**At what point does the  
specification become  
Unsustainable or unusable?**

Applicability reengineering

Controlled Content added

Wiring changes

New ACT DM

CCT and PCT changes

## Issue 3.0

Configuration Management  
(Applicability, A/C Table, SB List,  
etc.)

Significant Data

Technical Information Repository  
Business (Fault Symptom, Wiring,  
Scheduled Maintenance)

## Issue 2.3

## Issue 4.0

Schema Cleanup

TIR enhancements

Process DM enhancements

Ident and status section changes

Steps and paragraphs recursive

Reusable warnings and cautions

Hotspots in IPD

IC extensions

Preliminary rqmts enhancements

New Training and Checklist DMs

## Issue 2.2



# Impacts

- Implementation
  - Projects struggle with amount of choice
  - Suppliers struggle with enormity
  - Software vendors can't/don't want to keep up
- Evolution
  - Ability to address new requirements from diverse communities
  - Integration with other standards
  - Timely address of project requirements

# Solutions

- Move from large and complex to simple and powerful
- Build a new approach – ***Extensibility***
  - Mirrors most software development
  - W3C principle
  - PLCS reference data mechanism

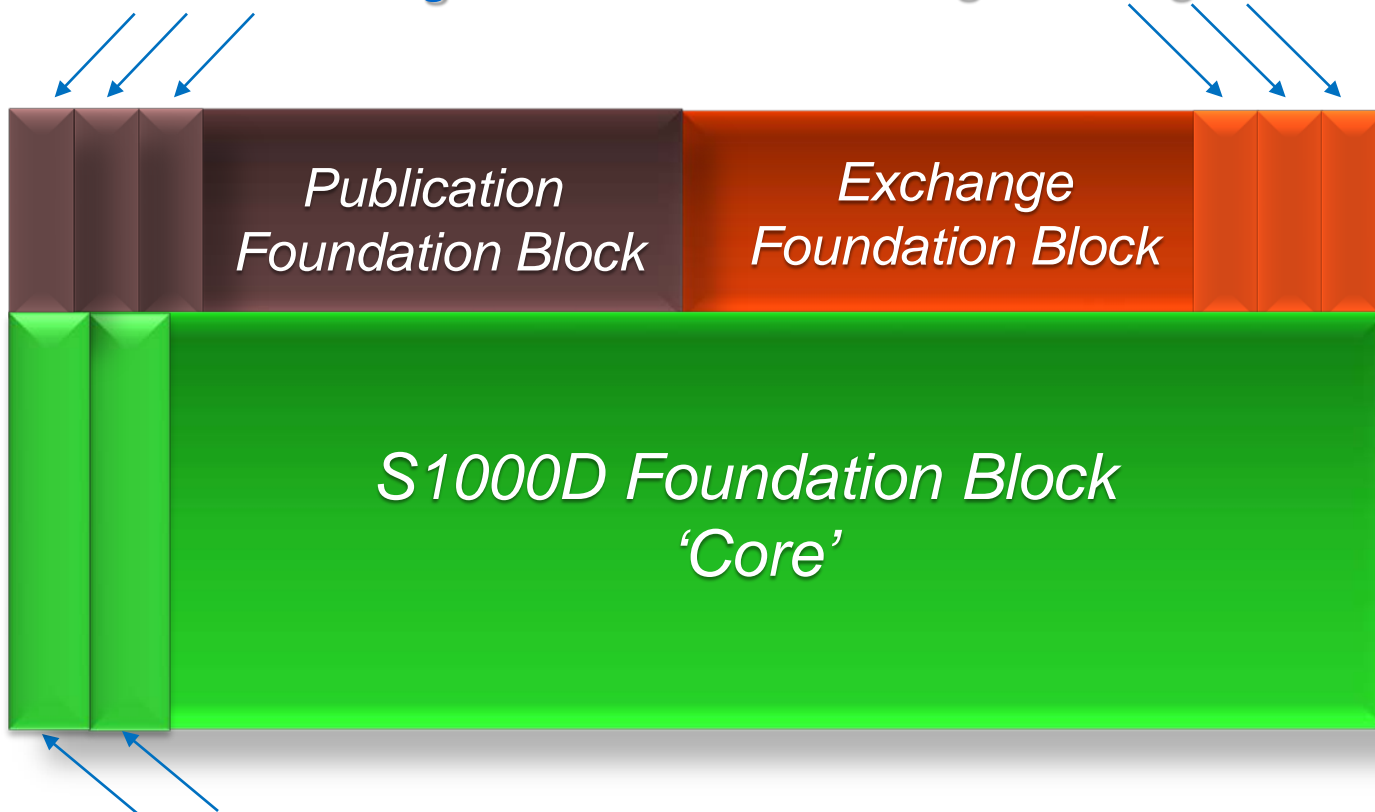
# The Council Goal

*A modular based specification*

*Foundations and optional building blocks*

Publication Building Blocks

Exchange Building Blocks

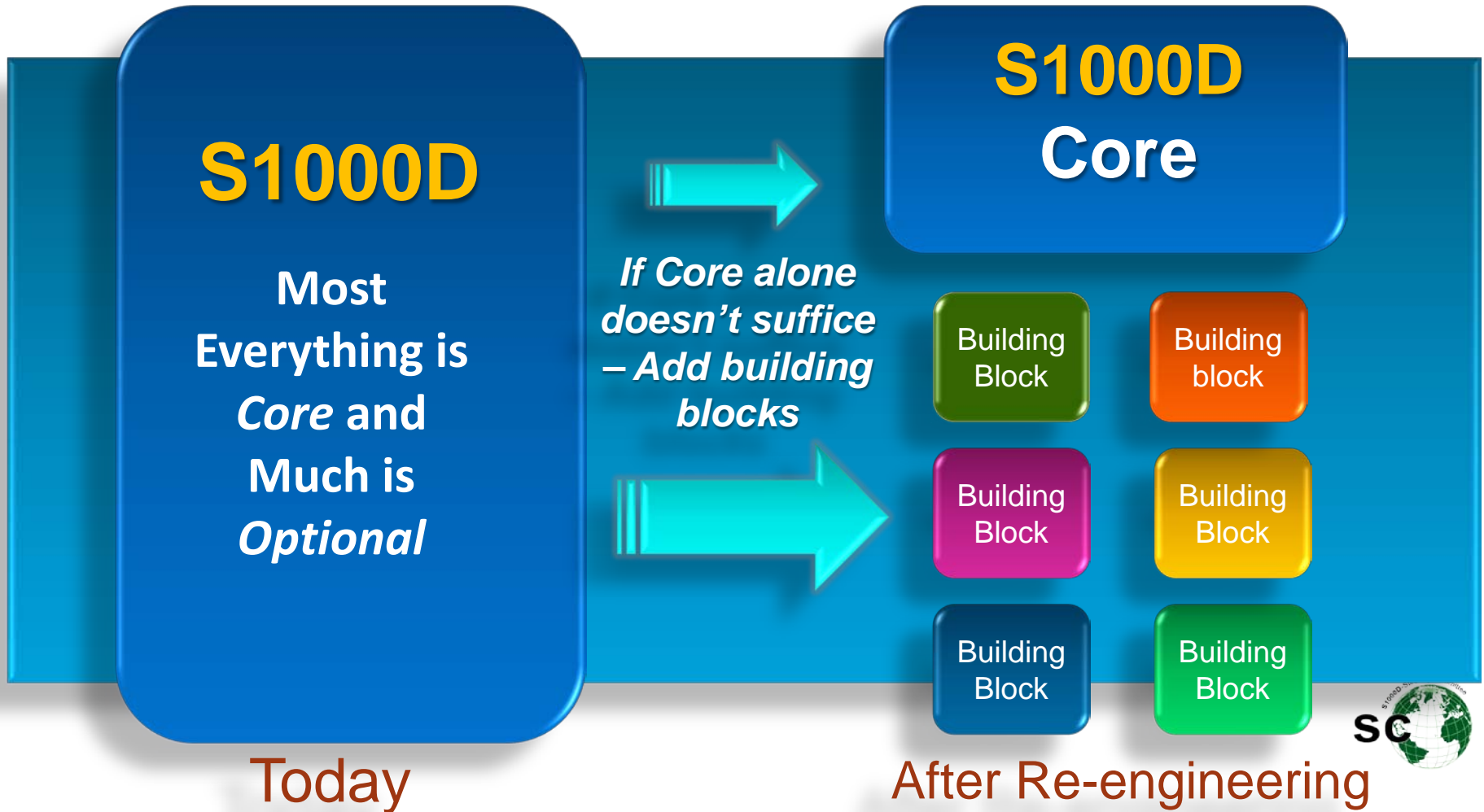




# What does it mean?

- Today all constructs are included in the ‘core’ of the standard
- In future, ‘core’ constructs may be used along with building blocks to extend use
- Stabilizes the ‘core’
- Manages the size and complexity of application
- Allows software vendors to track the ‘core’ and make business decisions about which building blocks to address

# New Paradigm



# Compliance

- Spec will maintain a minimum compliance scope
- Change proposals will need to identify whether the 'core' is affected or building blocks
  - Narrow opportunity available to affect 'core' to maintain stability

# Approach to Solving

- SMTT is developing a use-case questionnaire to determine how the various using communities view the spec
  - Develop descriptions of usage
  - Commonalities and differences
  - Problem statement
- Develop business case
- Requirements definition
  - Validate known, existing; Document new
- Generate solutions
  - Identify impact to spec
- Schedule the work

# Accommodating Modularization

## Modularization Preparation Phase

- Modularization requirements definition
- Modularization solution definition & planning (specification)
- Impact on CPF and SC process and organ.
- Conformance and compliance

## Parallel Spec work - CPFs that are in compliance with modularization principles

- Multimedia and graphics work
- Model-based enterprise & 3D models
- Look & feel standards for small screens

## Modularization Phase of S1000D chapter text and schemas - may include:

- Implementation guide (master guidance document)
- XML-ization of the specification
- Data Dictionary

## Post

### Modularization:

- Packaging of Style Sheets
- ID attributes on all elements
- Raise detail level of non-aircraft part
- Improved usability for software documentation
- Doc change management process
- BREX enhancements, DML enhancements, ...

## Issue 4.2

- Bug correction
- Priority CPFs (full upwards compatibility = parsing of 4.1 data using 4.2 schemas)

## Issue 5

**MODULARIZATION  
is  
RE-ENGINEERING**

2012

2013

2014

2015

...

