AIA AEROSPACE INDUSTRIES ASSOCIATION

ASD AeroSpace and Defence Industries Association of Europe

ILS-Specification-Council council

Host (on behalf of ADS):

ADS

ADS is the Premier Trade Organisation for companies in the UK Aerospace, Defence, Security and Space Sectors.

The "X" Specifications suite of the S-Series

Introduction and a Use Case

Name of presenter: Achim Besel

Rank/title of presenter: Expert IETD, Standardisation, Processes and Technology

Company/organization: Airbus Defence and Space

ILS Specification Day, London *October 17, 2019*

Agenda

- Scope of the presentation
- Purpose of the “X”-Specifications suite
- Use Case / Example
- Principle view
- Issue plan of the “X”-Specifications suite – Current status
- Questions & Answers

Scope of the presentation

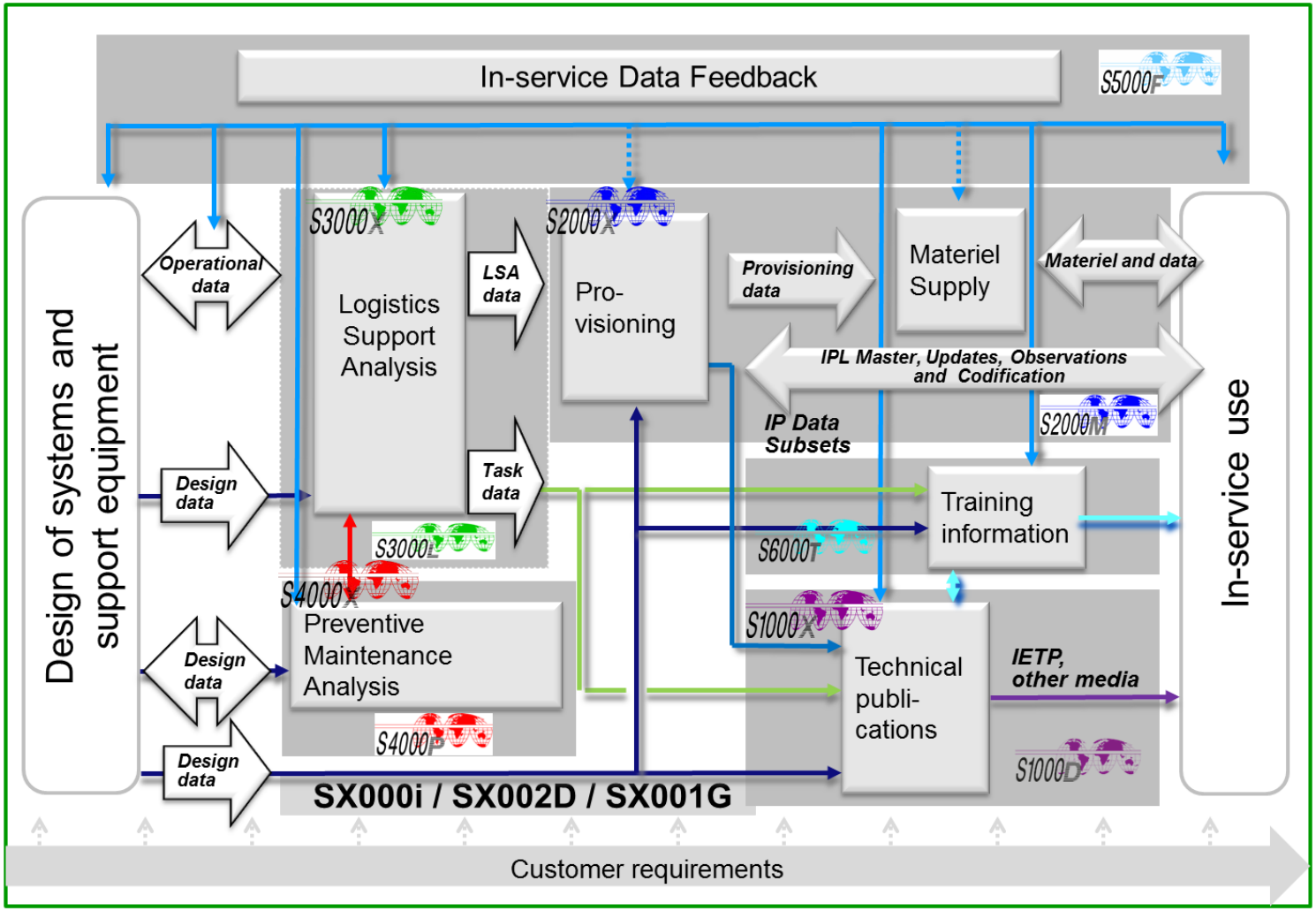
- The **presentation will inform** about the concept concerning the "X"-specifications suite and **how the "X"-Specifications interact**.
- A **data element example** is used which **will explain how the technical data**, which will be available in an Interactive Electronic Technical Publication (IETP) for the end user, **are interlinked between S1000D, S2000M, S3000L and S4000P**.

The Specifications Chairs are available on stage and present the data input requirements from their specific specification perspective.

- Joakim Lundqvist → S1000X (from an S1000D perspective)
- Carlos Lafuente → S2000X (from an S2000M perspective)
- Peter Eichmüller → S3000X (from an S3000L perspective)
- Stefan Schiele → S4000X (from an S4000P perspective)

Purpose of the “X” Specifications suite

The purpose of the “X”-Specifications is to specify all input data required from other specifications to ensure interoperability between the specifications.



Use Case - Example

FRONT BRAKE TUBE

Partnumber (CP-001)

Manufacturer Code (KZ888)

Example:

In an Interactive Electronic Technical Publication (IETP) a replace procedure for the FRONT BRAKE TUBE based on a dedicated Preventive Maintenance Task Requirement [PMTR) (eg, after 2 years) is included. In this context the Partnumber and Manufacturer Code information is required in the IETP.

→ Where - in detail - does the information come from?

Partnumber and Manufacturer Code

Where is the source for this data?

Mapping to the S2000M source data (S1000D IPD schema vs. S2000M)

Partnumber attribute in S1000D IPD schema including a target example

Detailed path to the data source in S2000M schema

No.	Target: Functionality area and Detail/Path	Target example (XML fragment only)	Source data (XML fragment only)
3.9.5.2.7_2.5_5@1	Part number value (PNR) content/ illustratedPartsCatalog/ catalogSeqNumber/ itemSeqNumber/partRef @partNumberValue	<partRef partNumberValue="**CP-001**"/>	**partNumber** (⇨ PNR): <**locipd**>…<msgContent><cas>…<figCsn>… <pidIsn><pidRef><**pid**><id>**CP-001**</id> </**pid**>…</pidRef></pidIsn></figCsn></cas></msgContent></locipd>
3.9.5.2.7_2.5_5@2	Manufacturer code value (MFC) content/ illustratedPartsCatalog/ catalogSeqNumber/ itemSeqNumber/partRef @manufacturerCodeValue	<partRef manufacturerCodeValue="**KZ888**"/>	**Manufacturer** (⇨ MFC): <**locipd**>…<msgContent><cas>…<figCsn>… <pidIsn><pidRef><pid>…<setBy><**orgId**> <id>**KZ888**</id></**orgId**></setBy></pid> </pidRef></pidIsn></figCsn></cas> </msgContent></locipd>

Partnumber and Manufacturer Code

Where is the source for this data?

Mapping to the S3000L source data (S2000M XML schema vs. S3000L)

Partnumber and manufacturer attribute in S2000M

Detailed path to the data source in S3000L XML schema

No.	Target: Functionality area (UoF) and path	Target example (XML fragment only)	Source data (XML fragment only)
tbd in S2000X	UoF **S2000M Part Definition Data**: `HardwarePartAsDesigned/partIdentifier(PID)`	**partNumber** (⇨ PNR): `<locipd>…<msgContent><cas>…<figCsn>…<pidIsn><pidRef><pid><id>CP-001</id></pid>…</pidRef></pidIsn></figCsn></cas></msgContent></locipd>`	**partIdentifier** (⇨ partId): `<lsaDataSet><msgContent>…<parts><hwPart><partRef><partId><id>CP-001</id></partId></partRef></hwPart></parts>…</msgContent></lsaDataSet>`
tbd in S2000X	UoF **S2000M Part Definition Data**: Manufacturer(⇨ MFC): `HardwarePartAsDesigned/partIdentifier(PID)/SetByOrganization/organizationIdentifier`	**Manufacturer** (⇨ MFC): `<locipd>…<msgContent><cas>…<figCsn>…<pidIsn><pidRef><pid>…<setBy><orgId><id>KZ888</id></orgId></setBy></pid></pidRef></pidIsn></figCsn></cas></msgContent></locipd>`	**Manufacturer** (organization ⇨ orgId): `<lsaDataSet><msgContent>…<parts><hwPart><partRef><partId><setBy><orgId><id>KZ888</id></orgId></setBy></partId></partRef></hwPart>></parts>…</msgContent></lsaDataSet>`

Partnumber and Manufacturer Code

Where is the source for this data?

Mapping to the S4000P source data (S3000L XML schema vs. S4000P)

Partnumber and manufacturer attribute in S3000L

Detailed path to the data source in S4000P XML schema*

*under development

No.	Target: Functionality area (UoF) and path	Target example (XML fragment only)	Source data (XML fragment only)
tbd in S3000X	UoF **S3000L Part Definition**: `PartAsDesigned/partIdentifier`	**partIdentifier** (⇨ partId): `<lsaDataSet><msgContent>…<parts><hwPart><partRef><partId><id>CP-001</id></partId></partRef></hwPart></parts>…</msgContent></lsaDataSet>`	**partIdentifier** (⇨ partId): `<pmaDataSet><msgContent>…<parts><hwPart><partRef><partId><id>CP-001</id></partId></partRef></hwPart></parts>…</msgContent></pmaDataSet>`
tbd in S3000X	UoF **S3000L Part Definition**: Manufacturer (Organization) `PartAsDesigned/partIdentifier/SetByOrganization/organizationIdentifier`	**Manufacturer** (organization ⇨ orgId): `<lsaDataSet><msgContent>…<parts><hwPart><partRef><partId><setBy><orgId><id>KZ888</id></orgId></setBy></partId></partRef></hwPart>></parts>…</msgContent></lsaDataSet>`	**Manufacturer** (organization ⇨ orgId): `<pmaDataSet><msgContent>…<parts><hwPart><partRef><partId><setBy><orgId><id>KZ888</id></orgId></setBy></partId></partRef></hwPart>></parts>…</msgContent></pmaDataSet>`

Partnumber and Manufacturer Code

Where is the source for this data?

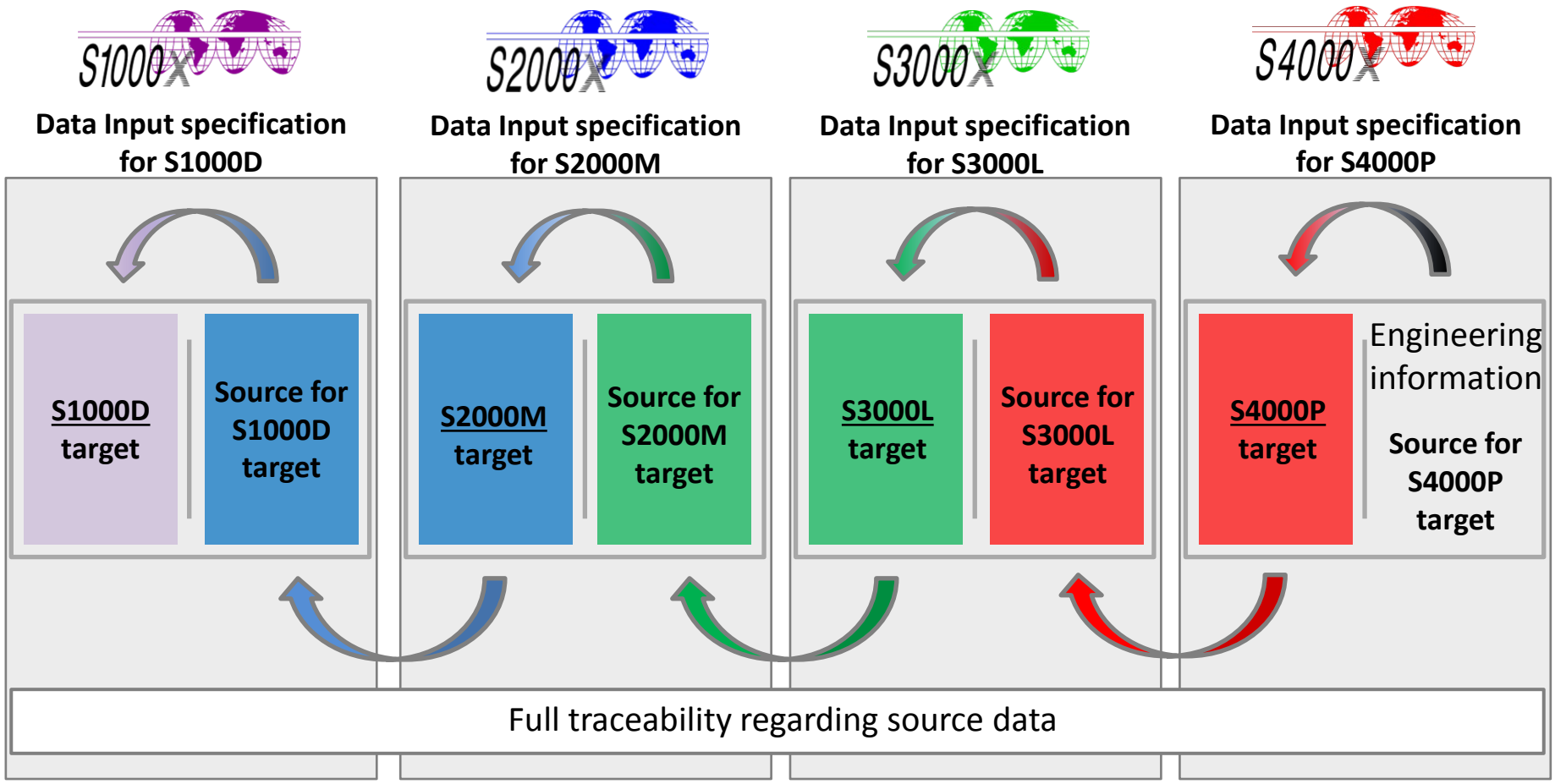
Mapping to the external source data (S4000P XML schema vs. Engineering)

Partnumber and manufacturer attribute in S4000P | **data from external sources**

No.	Target: Functionality area (UoF) and path	Target example (XML fragment only)	Source data from Engineering
tbd in S4000X	UoF **S4000P Part Definition***: PartAsDesigned/partIdentifier **UML data model of S4000P under development, Product breakdown will be equal to S3000L*	**partIdentifier** (⇨ partId): <pm**aDataSet**><msgContent>…<parts> <hwPart><partRef><partId> <id>**CP-001**</id></partId></partRef> </hwPart></parts>…</msgContent> </pmaDataSet>	**Part Identifier**: e.g. PartNumber from Drawings, Engineering Bill of Material (EBOM) or other sources, e.g. OEM part number
tbd in S4000X	UoF **S4000P Part Definition**: Manufacturer (Organization) PartAsDesigned/partIdentifier/SetByOrganization/organizationIdentifier	**Manufacturer** (organization ⇨ orgId): <pm**aDataSet**><msgContent>…<parts> <hwPart><partRef><partId><setBy> <orgId><id>**KZ888**</id></orgId> </setBy></partId></partRef> </hwPart>></parts>…</msgContent> </pmaDataSet>	**Manufacturer**: e.g. Manufacturer Identifier from Drawings, Engineering Bill of Material (EBOM) or other sources.

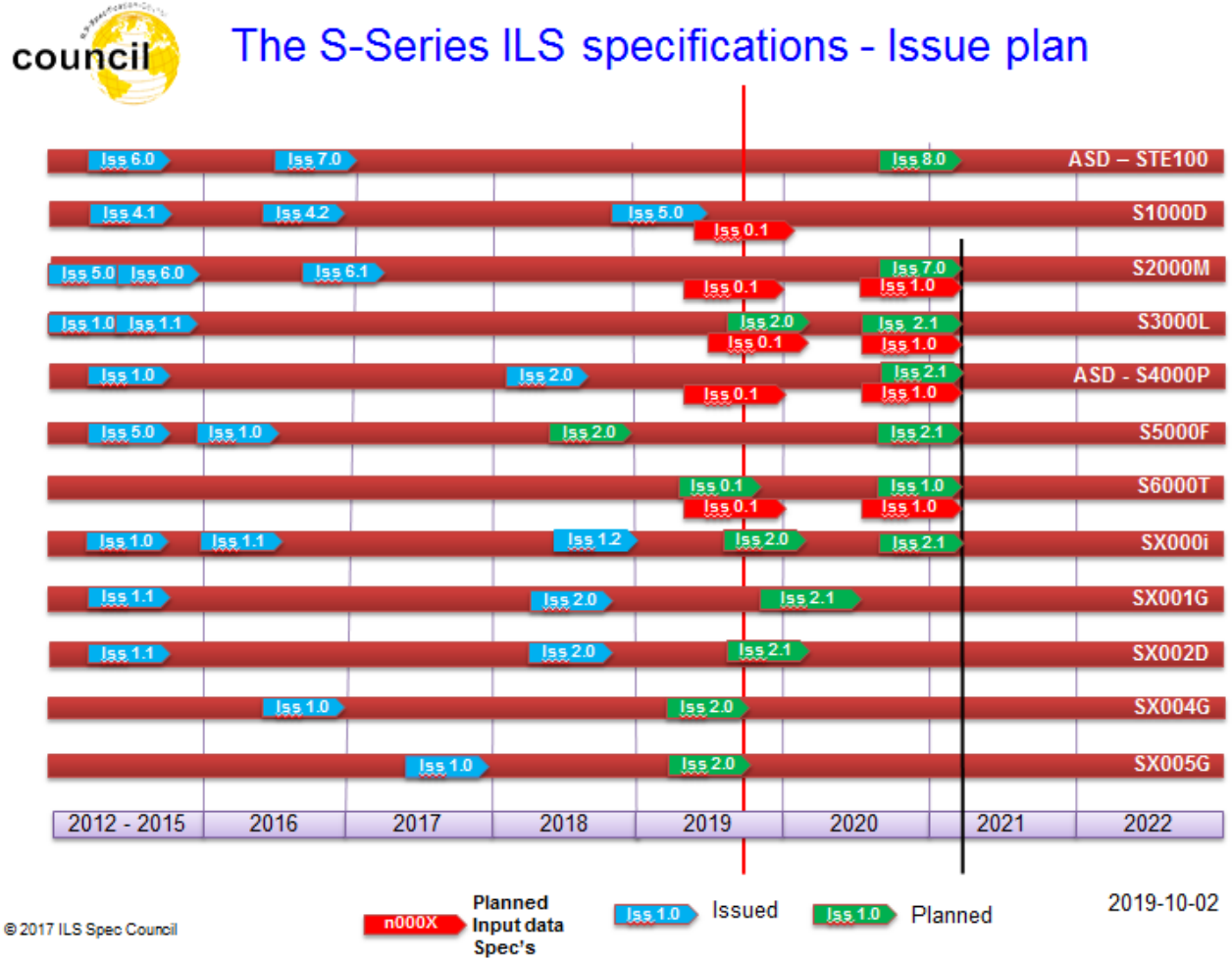
Principle view

The following graphic describes the principle view
how the data are interlinked between the specifications



Issue Plan of the “X”-Specifications – Current status

Latest Spec Issue Plan (agreed in 129. ASD PSSG in Rome, 02.10.2019)



Thank you

for your attention!

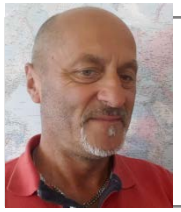
Questions?

Achim Besel
S1000D Council Vice Chair

Joakim Lundqvist
S1000D Chair

Carlos Lafuente
S2000M Chair

Peter Eichmüller
S3000L Vice Chair



Stefan Schiele
S4000P Chair