



Requirements traceability to enable mission readiness

PLM Road Map™ & PDT Europe 2025

PLM's Integral Role in Digital Transformation From Strategy to Execution

Elevating PLM to an Enterprise Business Solution, the PLM

Professional's Road Map to Success 5 & 6 November



© Eurostep | 2



The importance of the Supply chain

The Supply chain is responsible for up to

80%

of the content of Airbus jets and stretches as much as nine layers deep



Source: <https://www.reuters.com/business/aerospace-defense/airbus-faces-new-output-pressure-amid-parts-shortages-sources-say-2024-05-31/>



© Eurostep | 3

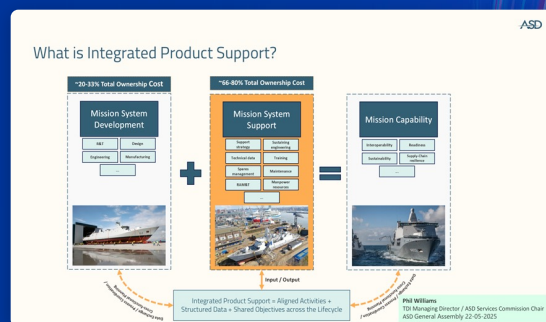
-eurostep-

The importance of the Support phase

Up to

80%

of the **total cost of ownership** is generated by the **support phase**



Source: By Phil Williams, presented at the ASD General Assembly, May 2025



© Eurostep | 4

-eurostep-

Other priorities in defence acquisition

Ability to integrate, evolve and repurpose

- Respond to emerging needs

Access to innovation

- Civil/military overlap & Dual-use technologies
- Reduce barriers for non-traditional suppliers

Military off-the-shelf

- Interoperability & allied collaboration

Defense departments need rapid innovation and are no longer willing to wait years for a custom system when an

80% Solution

can be purchased off-the-shelf.



Source: <https://www.comet.ca/en/whattwe-act/m/2020/05/13/defense-trends-ship-#defense-battle-defense-trends.html>



© Eurostep | 5

-eurostep-

Defence industry challenges

- Increased demand
- Increased spending
- Increasingly complex platforms
- Shifting business settings



Mission performance & readiness

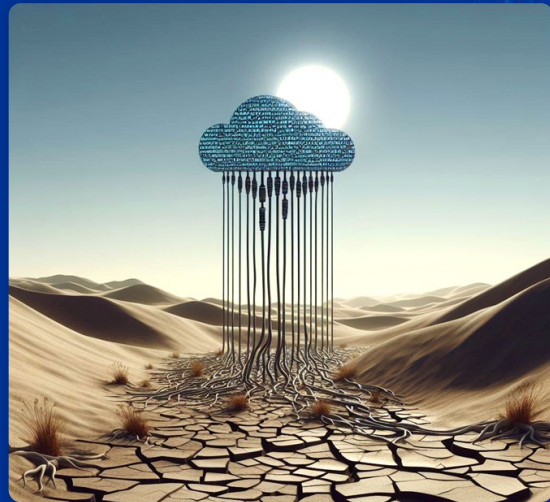


© Eurostep | 6

-eurostep-

As-is situation for defence operators

- Historically we have noted a huge product data **“shortage”** in military context
 - Over time it evolves into a **“data debt”** problem
- Poor tool and model interoperability – **“data silos”**
 - Data is often exchanged as documents, e.g. specifications
- Yet another cause; **lack of contracting, and product data supply chain processes and tools**



© Eurostep | 7

-eurostep-

Contract for information SMART ly

S - Semantics

- Clearly and unambiguously define the semantics of what is being asked

M - Measurable

- Set enforceable data quality KPIs in the contract

A - Accurate

- Precise specification of what information is being asked for

R - Reasoned

- Request only what's necessary

T - Timely

- State when the data is needed

PLM Road Map™ & PDT Europe 2024
Value Drivers for Digitalization of the Product Lifecycle
Insights for the PLM Professional—Why the investment, what are the returns, and how are they achieved?
CIMdata 23 & 24 October -eurostep-

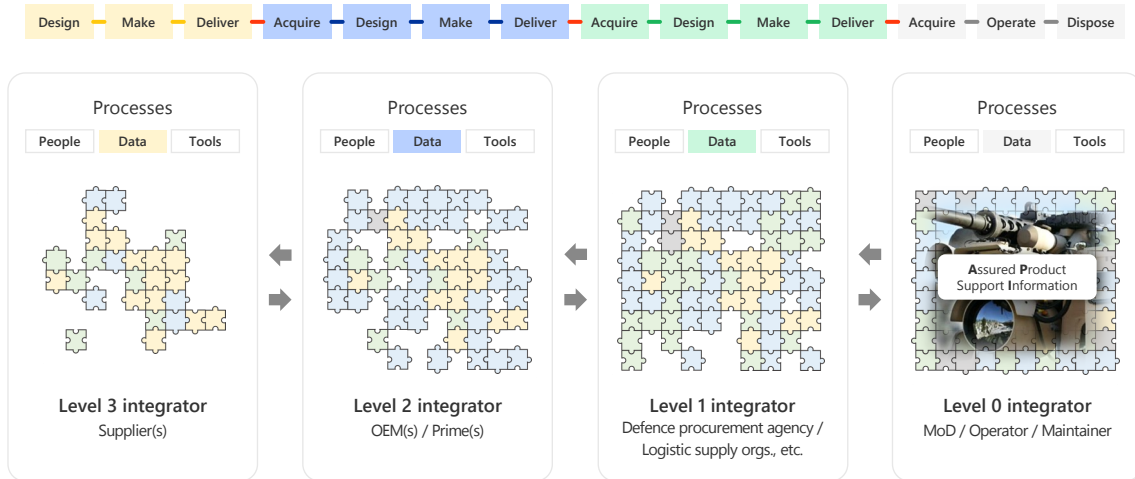


© Eurostep | 8

-eurostep-

The product data supply chain

-What is needed to support the projects in acquiring product data



© Eurostep | 9

-eurostep-

Why talk about requirements?



Operational

The **Mission profile** tells the story of what a System shall:

- do
- when
- under what conditions



Technical/product

Functions to be delivered by a System:

- Performance
- Constraints
- Interfaces



Support system

To be able to **Sustain** a System throughout its lifecycle:

- Spare parts & tools
- Technical manuals
- Personnel & training
- Transport & storage



Compliance

Requirements from **regulatory bodies**:

- Safety
- Environmental
- Contracting
- Cyber security
- Export Control



Commercial

Specifies **what work shall be done** and when data shall be delivered:

- SoW
- CDRL
- Data requirements



© Eurostep | 10

-eurostep-

Contract for information ... use cases



Solution selection



CO-design



Support design



Sustainment



Decommissioning

- ✓ Data availability is ensured by SMART Contracting for information
- ✓ Data quality is enhanced by validating and verifying provided information against the requirements
- ✓ Ensuring the integrity of data from external sources prior to its integration with your digital thread



Contract for information ... the business case

Operator's view

Challenges

Benefits

Large portfolios of systems

- Multi-project environment with many suppliers
- Risk of vendor lock in

- Standardized engagement patterns
- Improved data assurance (Quality & completeness)

Products with long lifecycles

- Cost control requirements
- Sustaining systems relevance over time

- Lifecycle cost optimization
- Continuous access to accurate and up-to-date information

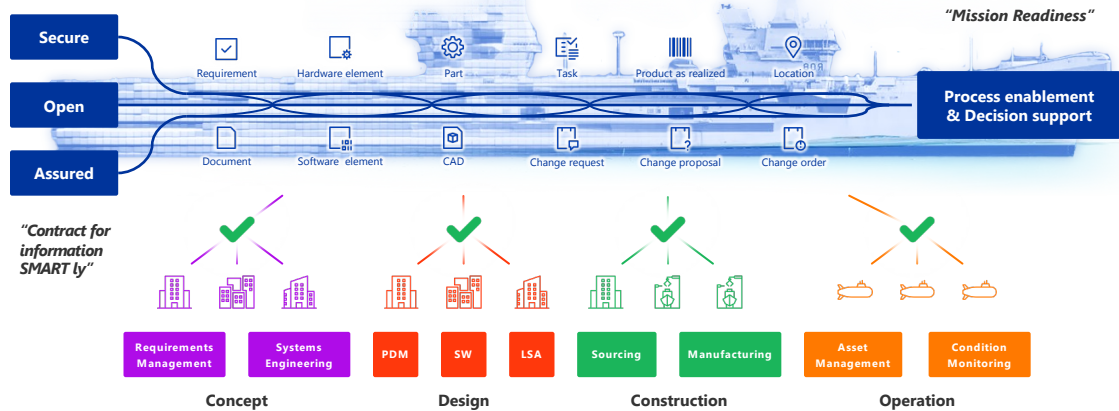
Systems of systems

- Complex integration across hybrid systems and domains
- Multiple data sources and supply chain interfaces

- Standardized data exchange and harmonized system representation



Unleash the power of your product information across the lifecycle



© Eurostep | 13

-eurostep-

Conclusions

- Competitive and military advantage requires usable data, at the point of decision
 - Product data must be **accessible**, **accurate**, and **assured** to be readily available
- Assets are expensive, supply chains complex, effective data creates opportunity
 - More focus must be put on Product **data acquisition** and **collection** to avoid data shortages
- Things change, all the time, can the decisions you need to make keep up with that change?
 - Maintaining **traceable links** to changing **requirements** will help us to retain knowledge and respond to change
- Supply chain integration enables informed decision support
 - Validated data feed from your supply chain into your digital thread to **ensure Mission readiness**



© Eurostep | 14

-eurostep-

How to move forward?

- Treat Product information as a strategic valuable asset
 - Data availability → Mission readiness!
 - Data quality → Operational capacity!
- Help the suppliers to deliver the information you need
 - Common methods and tools to enable closer collaboration with suppliers over the entire lifecycle
 - Open standardised models and solutions that spans the entire lifecycle are essential
- Executive sponsorship is crucial
 - Focus on the primary objective and measure the benefit realization
 - Next generation C-level leaders are already proficient AI Power Users



© Eurostep | 15

-eurostep-

Thank you! Questions?



Simon Pettersson

simon.pettersson@eurostep.com



© Eurostep | 16

-eurostep-



Requirements traceability to enable mission readiness

PLM Road Map™ & PDT Europe 2025
PLM's Integral Role in Digital Transformation From Strategy to Execution



*Elevating PLM to an Enterprise Business Solution,
the PLM Professional's Road Map to Success
5 & 6 November*

