

**S1000D**

  
ATA e-BUSINESS PROGRAM

  
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# S1000D in an Integrated Data Environment

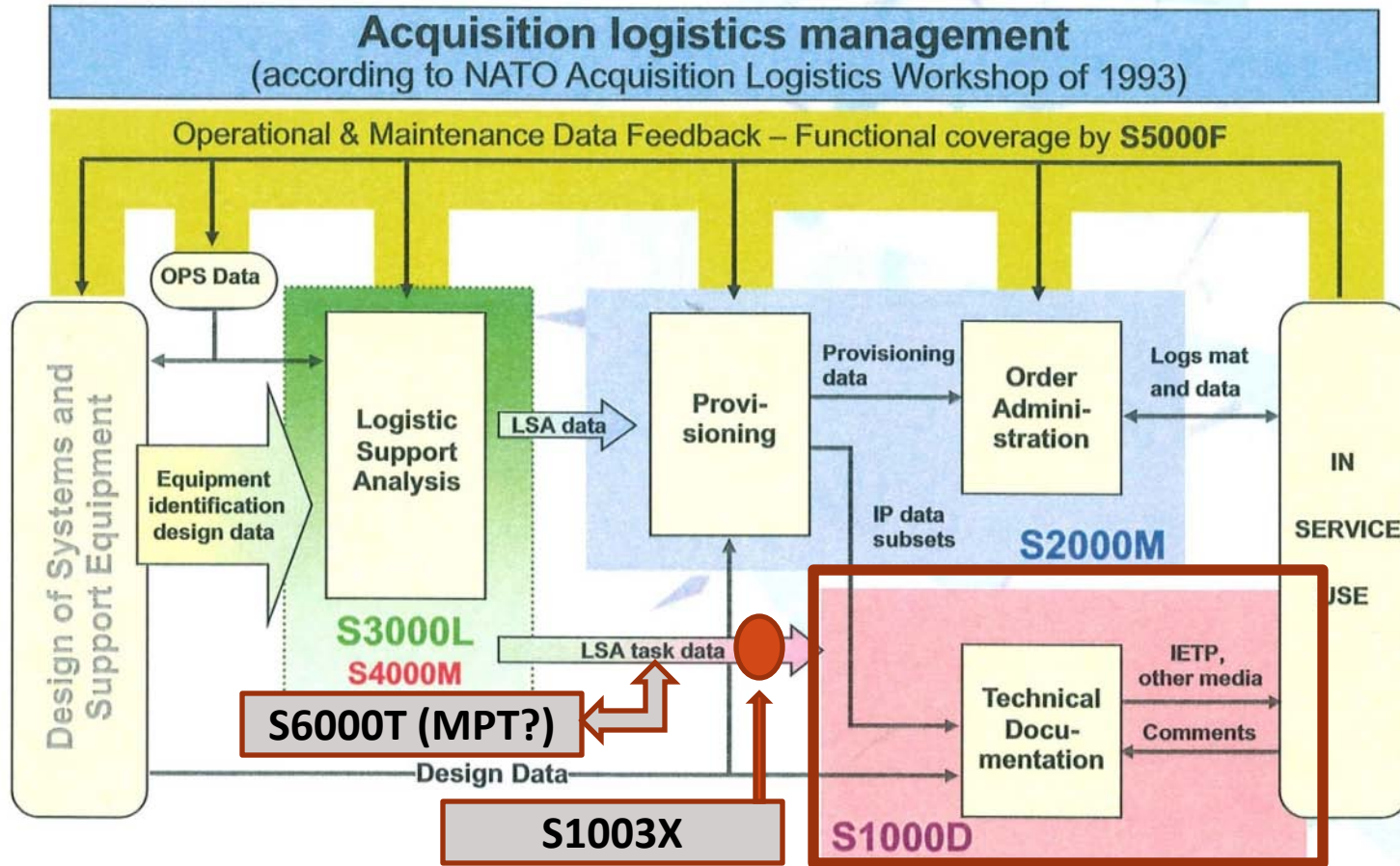
**How S1000D Fits into  
Product and Service  
Lifecycle Management**

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



# Integrated Data Environment Definitions

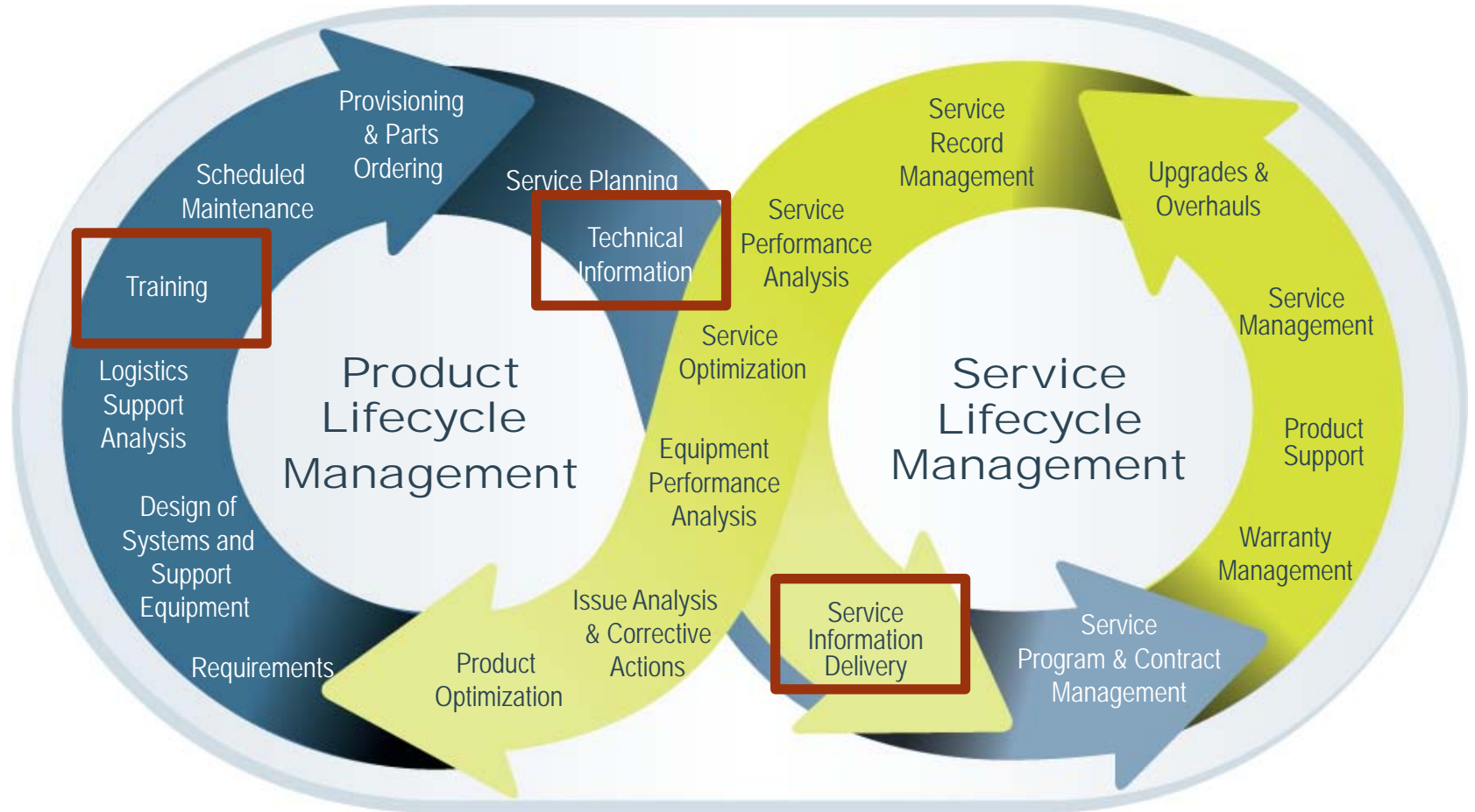
- **OEM – IDE** is the collection of product design **data** “positioned” for “**down-stream data users**” to retrieve, modify and reuse the information.

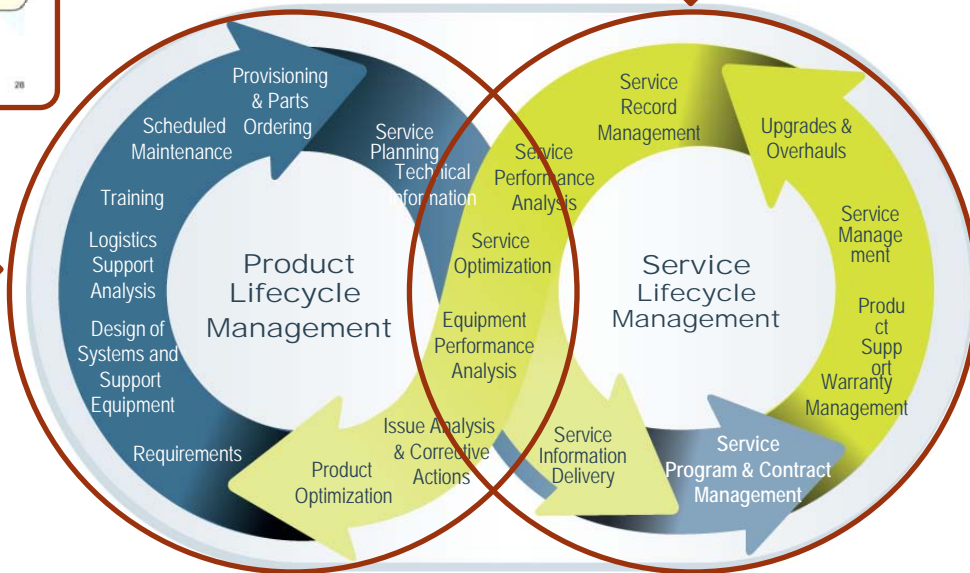
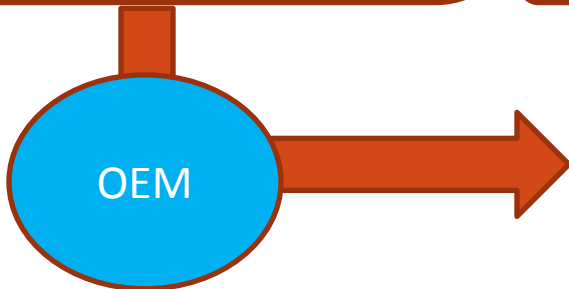
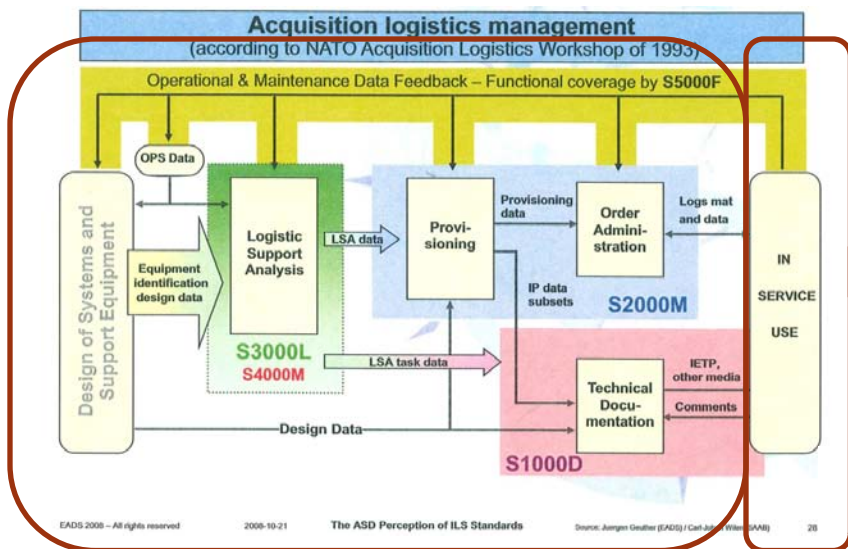
Where software applications will allow, **seamless data** flow up and downstream (maximizing reuse) is the desired end result.

- **End User - IDE** is the collection of **maintenance and operation documentation** used during the lifecycle of the product.

The content is developed for individual product level support (*tail number or serial number*) and used for varying purposes (*i.e. maintenance and mission planning, reliability reports, warranty compliance, manpower planning, training, etc.*).

# Closed-Loop Product and Service Lifecycle Management





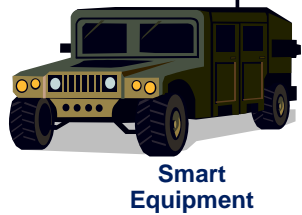
# OEM Integrated Data Environment Attributes

- **Design, Engineering and Manufacturing information supports downstream use for:**
  - Levels of repair for the product
  - Parts provision (spares) requirements based on reliability
  - Maintainability calculations
  - Maintenance repair data requirements (tech data)
  - Scheduled maintenance requirements
  - Training and performance needs
- **Field Maintenance information received for upstream use:**
  - PBL calculations & Maintainability/Reliability “Sanity” check
  - System/End Product Enhancements (Engineering Changes/Mods/End Customer Configuration Changes)
  - Spare Parts Usage/Projections

# End User Integrated Data Environment Attributes

- **Features include integrated software that improves:**
  - Platform availability
  - Maintenance data collection (history)
  - Supporting technical data (electronic or page based)
  - Current equipment configuration “As Maintained” vs. the “As Built”
- **Capabilities**
  - Maintenance based on current platform configuration from Maintenance Management System (MMS)
  - Work order processing
  - Failure tracking and analysis integrated with customer’s MMS
  - Feedback that provides Conditioned Based Maintenance (CBM) development making use of the results from RCM and FMECA analysis

## Integrated Data Environment (In the field)



Operational Data  
(What happened during the operation?)



Operator Debrief



Operator

Visual Indications



Maintainer

Maintenance Debrief

Diagnostic Info  
Maintenance History

Equipment Configuration

Indication Failure Definitions



Maintenance Repair Data

Maintenance Data Display Device

Equip. Config Data Entry Point Annotations

Equip. Config. Annotations

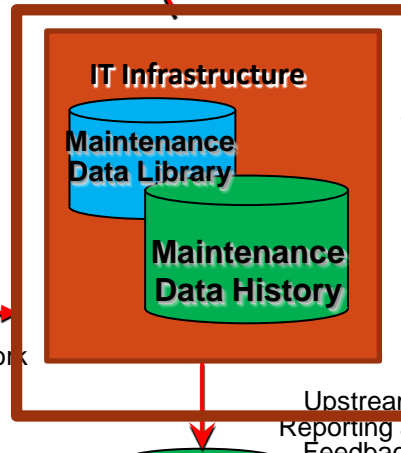


Maintenance Shop

Job Assignment

Review Job Assignment

Update Work Order



IT Infrastructure

Maintenance Data Library

Maintenance Data History

Maintenance Shop Assignment

Monitor Maintenance

Maintenance Assignment Center



Maintenance Management System

Upstream Reporting and Feedback



Historical Data

Operation and Maintenance Data Feedback



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# MISSING IDE ELEMENTS



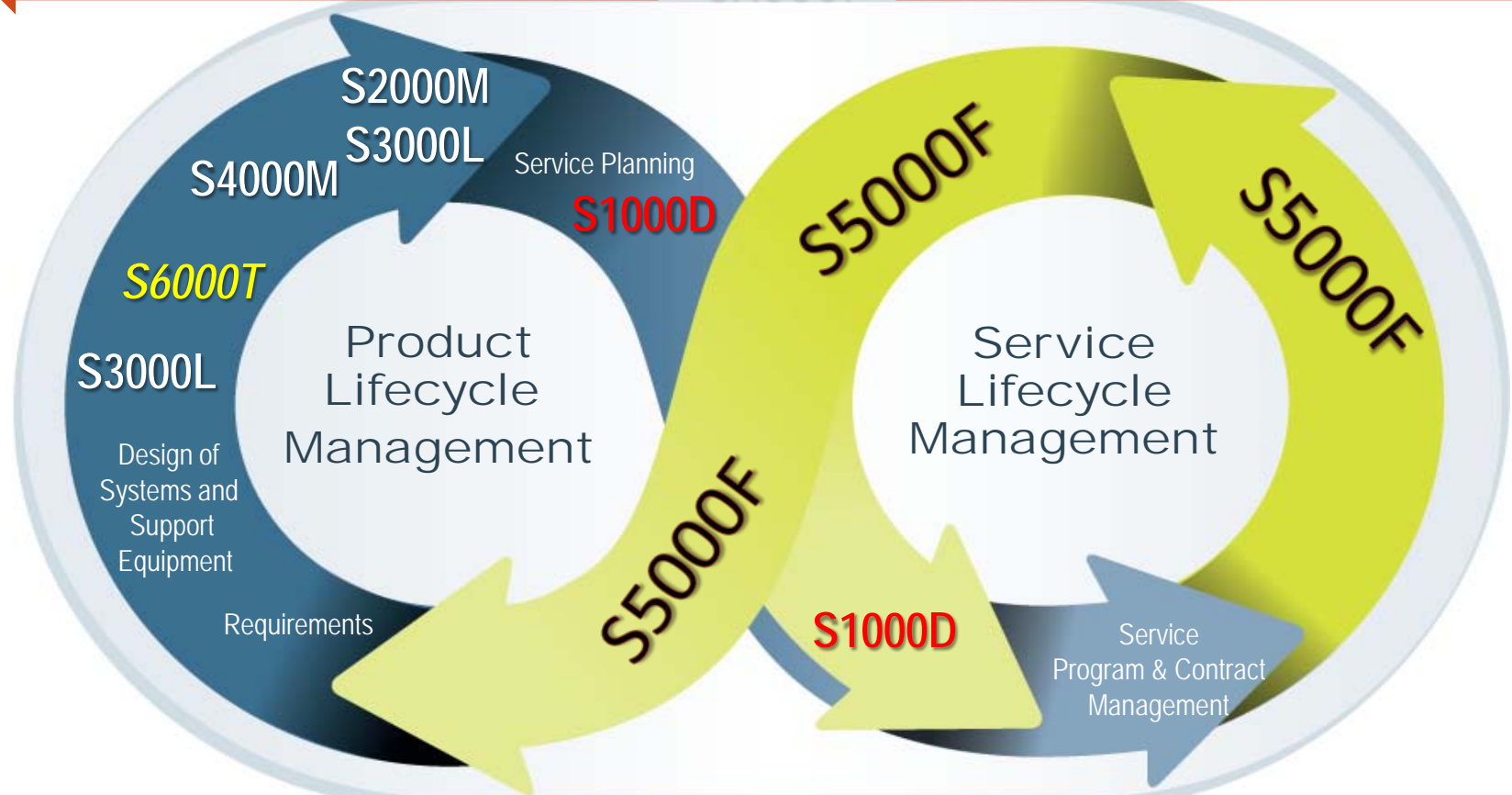
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# What is missing to achieve IDE capabilities?

- Standard Requirements for the design and infrastructure
  - *MBE and eBOM access and integration with support functions*
- Standard data exchange:
  - *What data is needed by whom including feedback?*
  - *Semantic consistencies between like data fields in differing systems*
- Standard Metrics “Pick List” for Contracting:
  - *PBL or Warranty*
- For IDE to work, “buy-in”
  - *Enforceable OSD and SYSCOM policies*
  - *Clear requirements*
  - *Qualified and responsive industry capabilities*
  - *Maturation of all “S” Series Specifications with demonstrated integration.*

# Closed-Loop Product and Service Lifecycle Management

SX000i



**What Can Assist In PLM/SLM Capabilities?  
INTERCHANGE STANDARDS, GUIDANCE and POLICY!**

## Summary

- S1000D is one component (system documentation support) in an integrated data environment.
  
- Differing but complimentary IDEs:
  - *OEM*
  - *End Users*
  - *Both must be in sync!*
  
- Product vs Service Life Cycle Management
  
- The need for interchange standards, guidance and policy for successful IDEs

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# Comments!



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