

Clearly OSLC is the Answer - But what are the Questions?

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What is a Saab?





System characteristics

- Long lifecycles Safety critical systems
- Continuous development
- Development system life is substantially shorter than System life
- Historical observation
 - Need to replace development system
 trice over the life of the system



Early concept (5 years)

Full-scale development (basic platform) (10 years)

Fully operational capabilities (10 years)

Upgraded capabilities (10 years)

Maintenance and support (10 years)

Disposal (5 years)



Consequences

New strategic directions for thriving in the new **unpredictable** world:

- Alignment with best international practise
- Need to architect organisation and development environment for Flexibility
 - Optimise overall capability
 - Ability to adapt the latest processes, methodology and tools
- Quick adaptation to new product development scenarios
 - At low cost



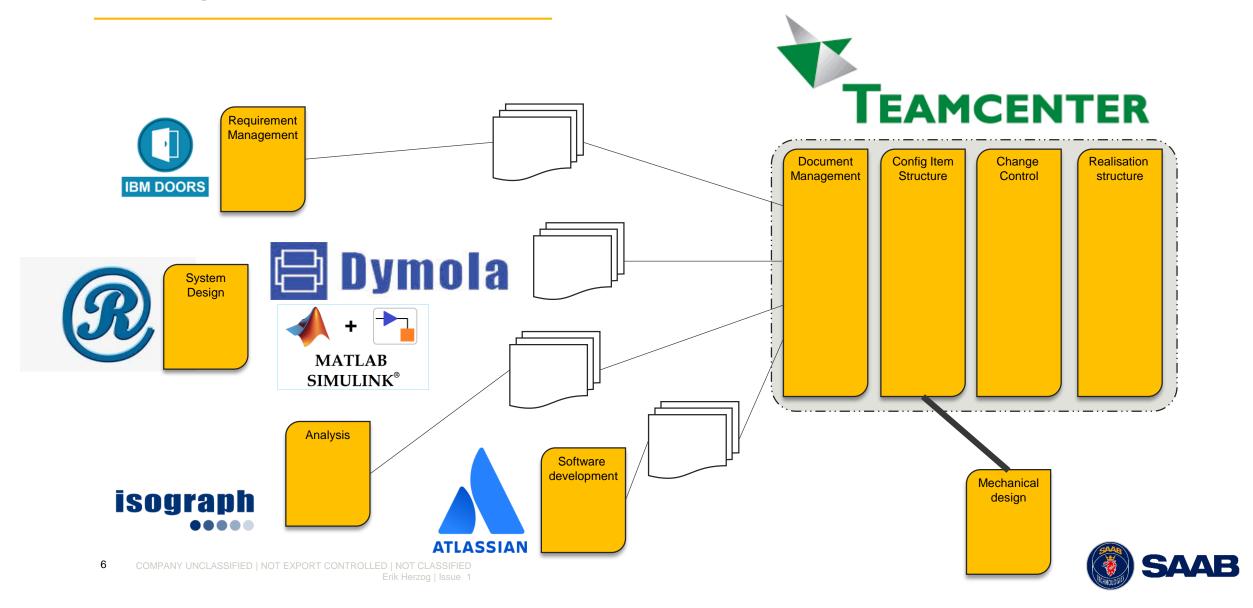




The real world we are living in



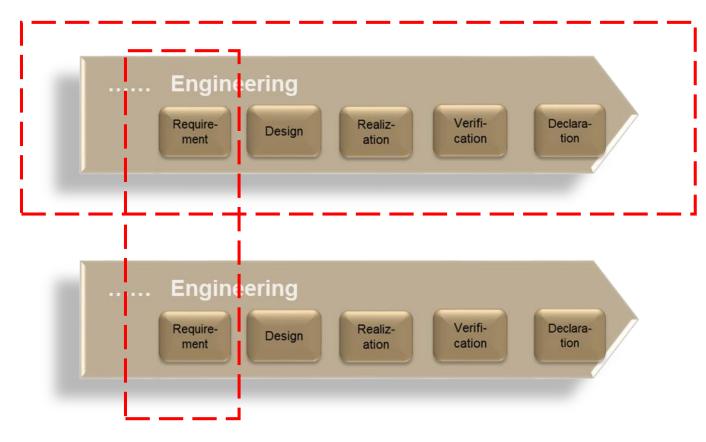
The problem – an illustration



Where we want to go



The need – standard based integration



Integration within a process flow – creating an integrated development environment

Operational need for standards based integration.

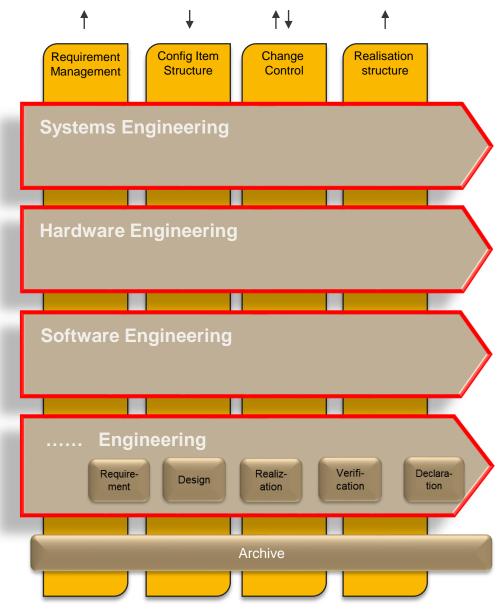
Objective: Plug and Play – minimising integration and maintenance costs

Integration between environments for ensuring the digital thread



Modularity

- Optimise support for each engineering discipline
 - Maximise automation, as provided by the supplier
 - Minimise application family switching
- Bring together management and engineers in a single environment
 - E.g., Change management and Status reporting
- Redundant capabilities accepted
- Ability to upgrade or replace environments without upsetting the complete PLM landscape

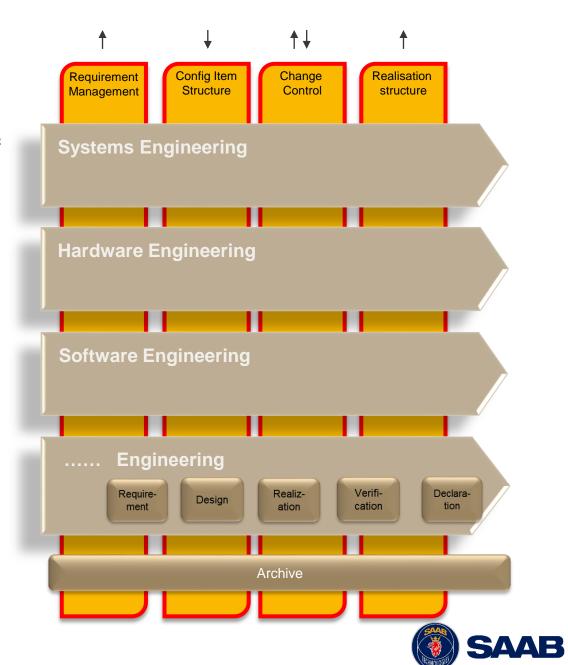




Traceability

- Need capability to ensure traceability and integrity of product data
- Traceability dimensions between engineering discipline environments
 - Requirements
 - Configuration item structure
 - Change management
 - Realization
- Configuration Management capability required for Requirements Traceability, Configuration item structure and Realization structure
 - Versions and baseline capabilities
- The OSLC standard offers the desired capabilities
 - Exploit for low cost and high quality integrations

https://www.researchgate.net/publication/361418413_Genesis_-an_Architectural_Pattern_for_Federated_PLM

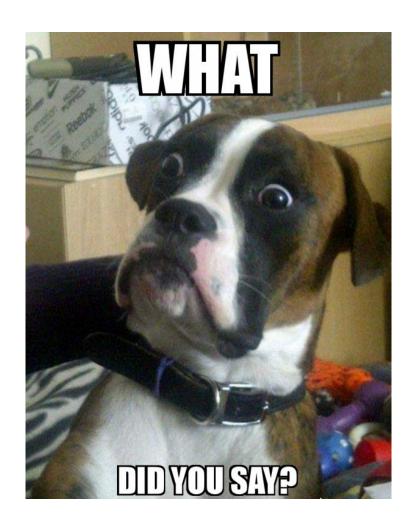


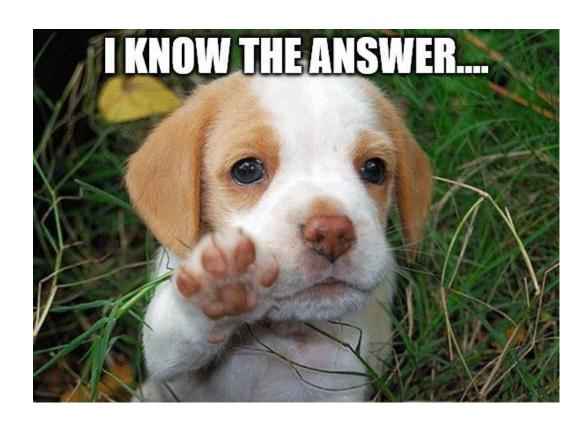
The answer: OSLC!





Obviously there is a problem here!







Why isn't the answer known?

- The lack of visible end-user commitment
- A perceived closedness of the standards group
- Lack of examples turning implementations into an adventure
- The small size of the standards group

Disclaimer 1: These questions are provocative – on purpose.

Disclaimer 2: In some cases I have not provided the right answer on behalf of Saab.



Lack of visible end-user commitment

- Why should I invest in a standard when there are very few other investors?
- If we want plug and play out of the box there have to be many boxes
 - Otherwise there is nothing to play with

End users need to communicate their interest in OSLC and their desired use-cases,

And

The OSLC community need to provide the space for showcasing those use-cases



A perceived closedness of the standards group

- OSLC standards are extensive with a substantive entry threshold
 - Great potential and ample ideas for improvement
- Regular meetings, but short
 - Difficult to grasp what is going on and how to contribute
- How can the entry threshold be lowered?

Need for dedicated sessions including

- Justifications of standard constructs
- Training sessions for the new specialists
- Near and long term strategies



Implementation adventures

- The OSLC specifications are extensive
- But there are few examples
- Especially true for configuration management enabled parts

Need for clear examples

- Explaining the concepts and relationships
- The call sequences
- What to look out for
- Lessons learned



The small size of the standards group

- The standardisation group is small and relies very heavily on a small group of experts
 - With lots on their agendas
- Need to grow the group to share workload
 - Train new people to support the specialists

Growing the standards group by

- Active work to increase end-user committment
- Extent the standards group activities to include investments to creating new experts
- Creating the examples that allow the new experts to grow and exchange experience



Summary



OSLC is uniquely positioned

- Excellent capability but hampered
- Need to move from:









The Heliple project

- Swedish Vinnova funded research project for investigating
 - Genesis a federated PLM architecture pattern
 - OSLC as an integration standard
- 18 months duration
- Participants
 - Eurostep
 - KTH
 - Saab







