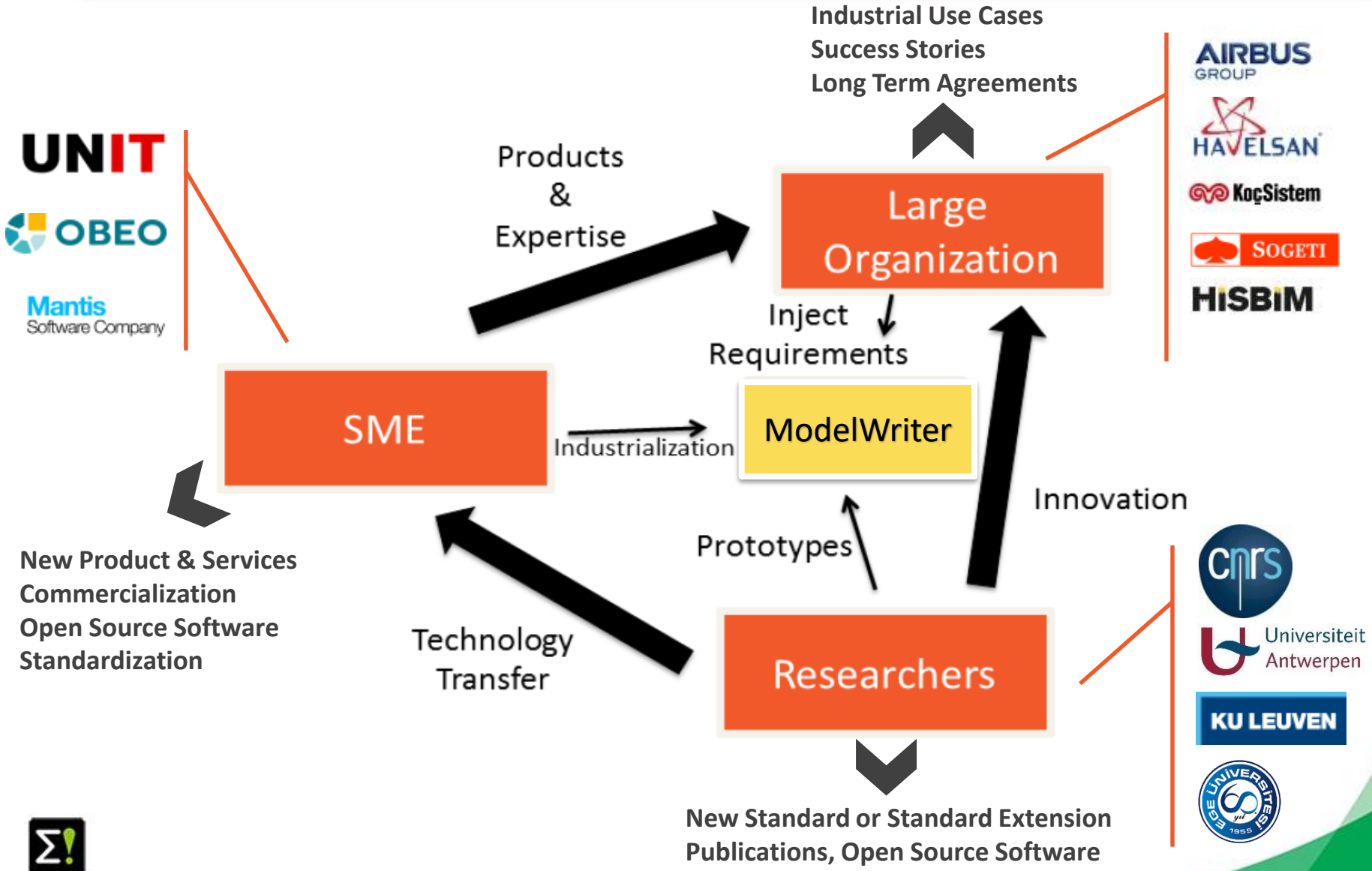
2 Overview of the Project

Ferhat Erata
UNIT, ModelWriter Project Leader

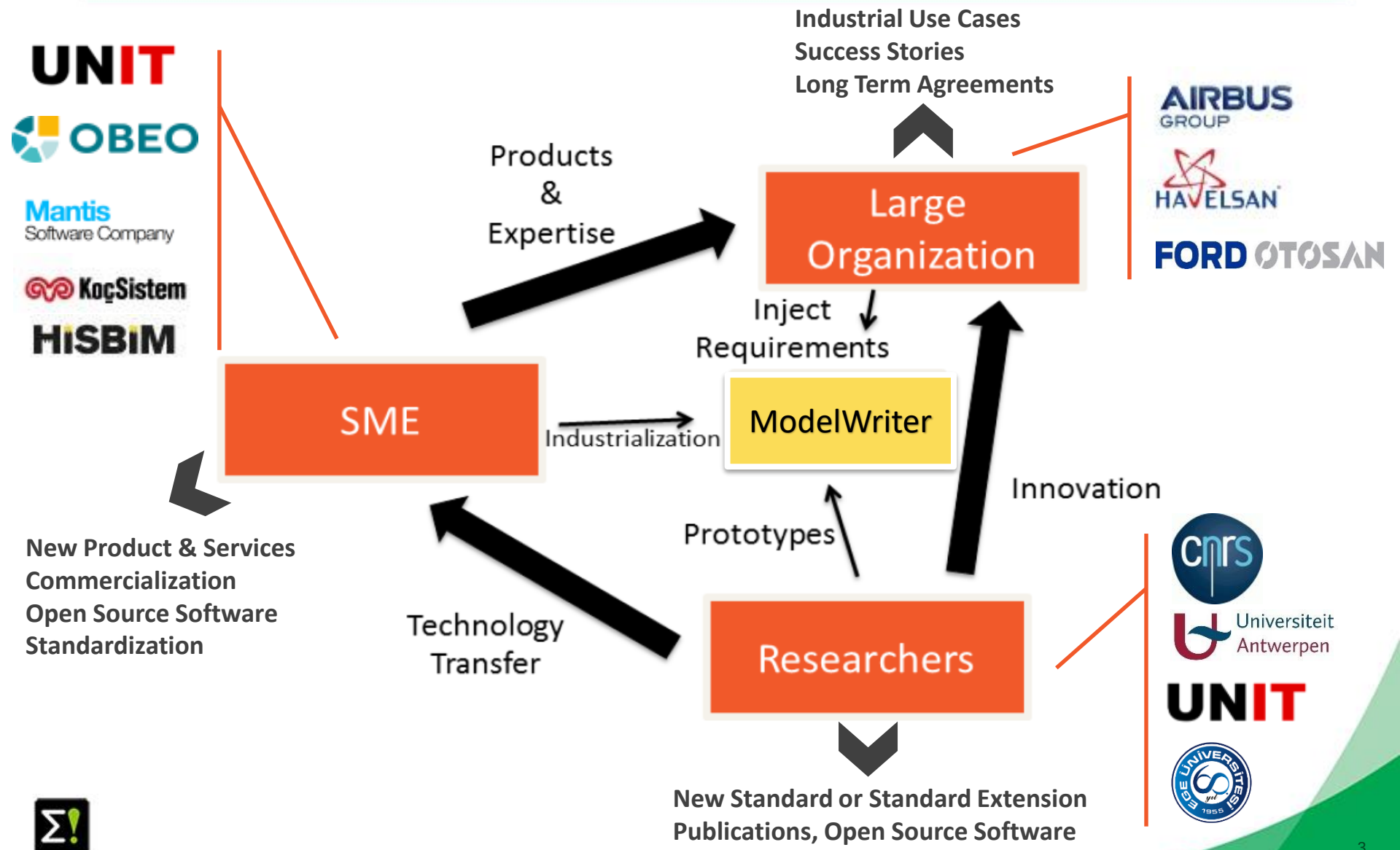
Industrialization Triangle in ModelWriter

Open Source Software (year #1)

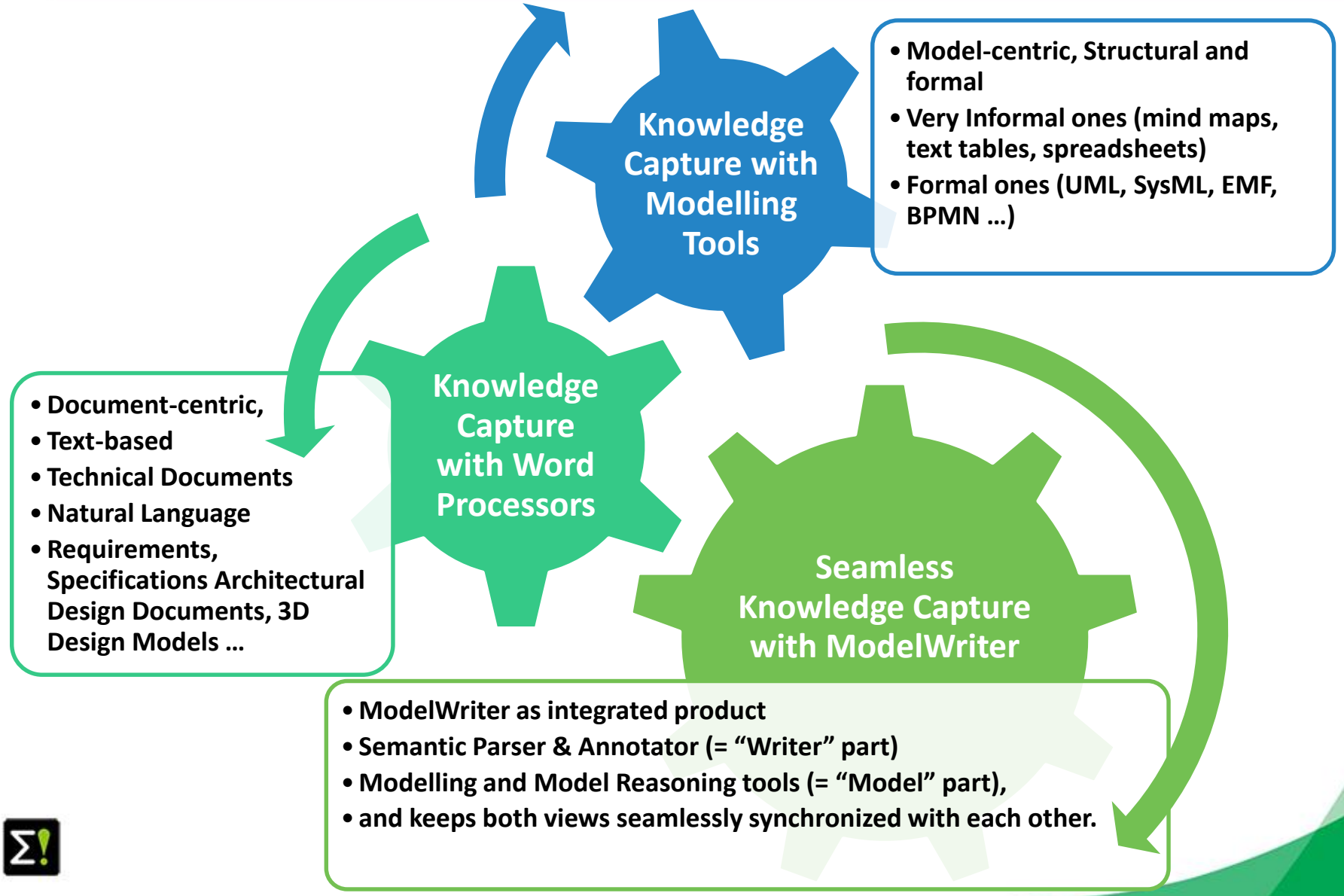


Industrialization Triangle in ModelWriter

Open Source Software (year #2)

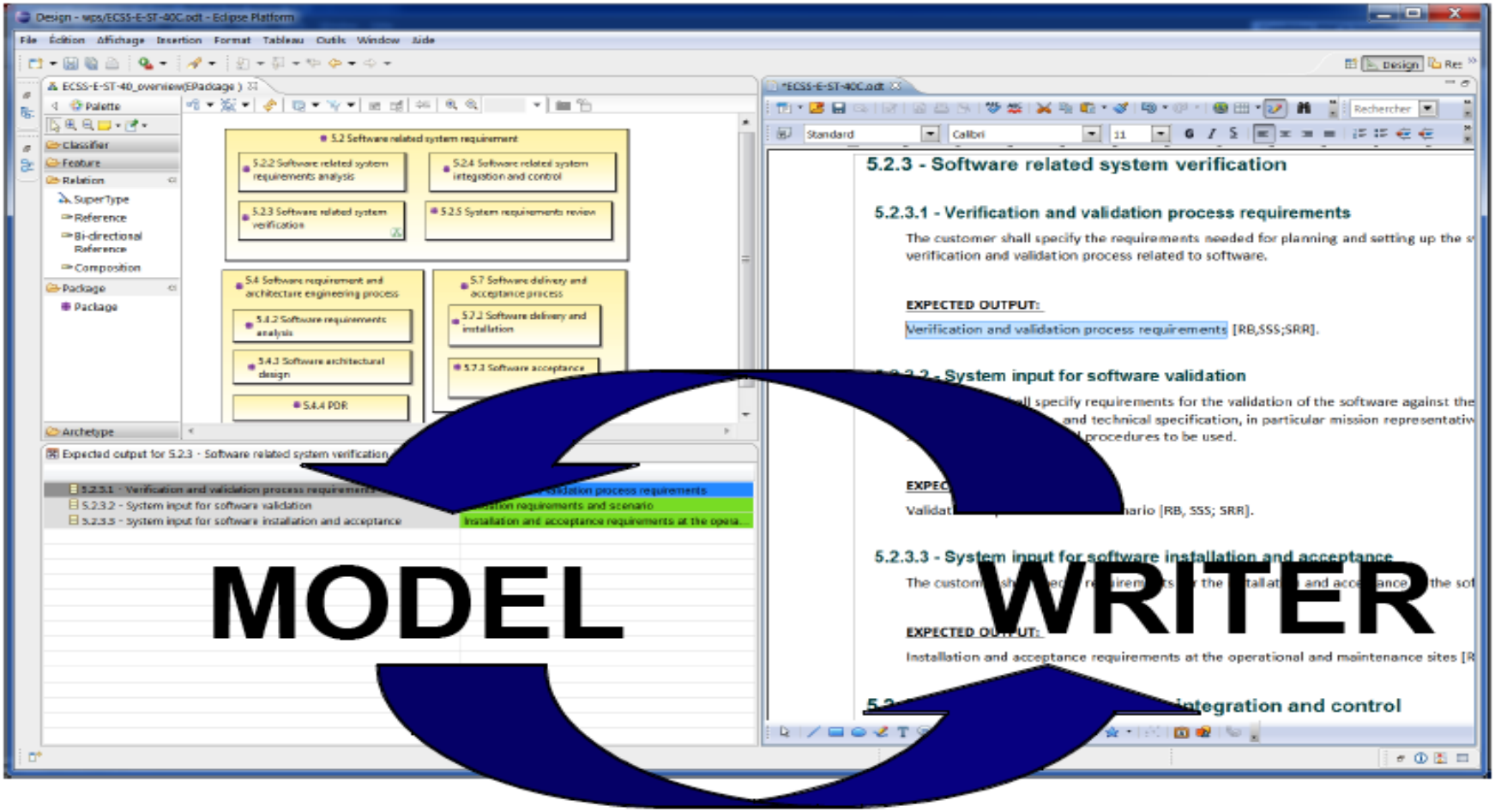


ModelWriter
Today's Knowledge Capture



ModelWriter

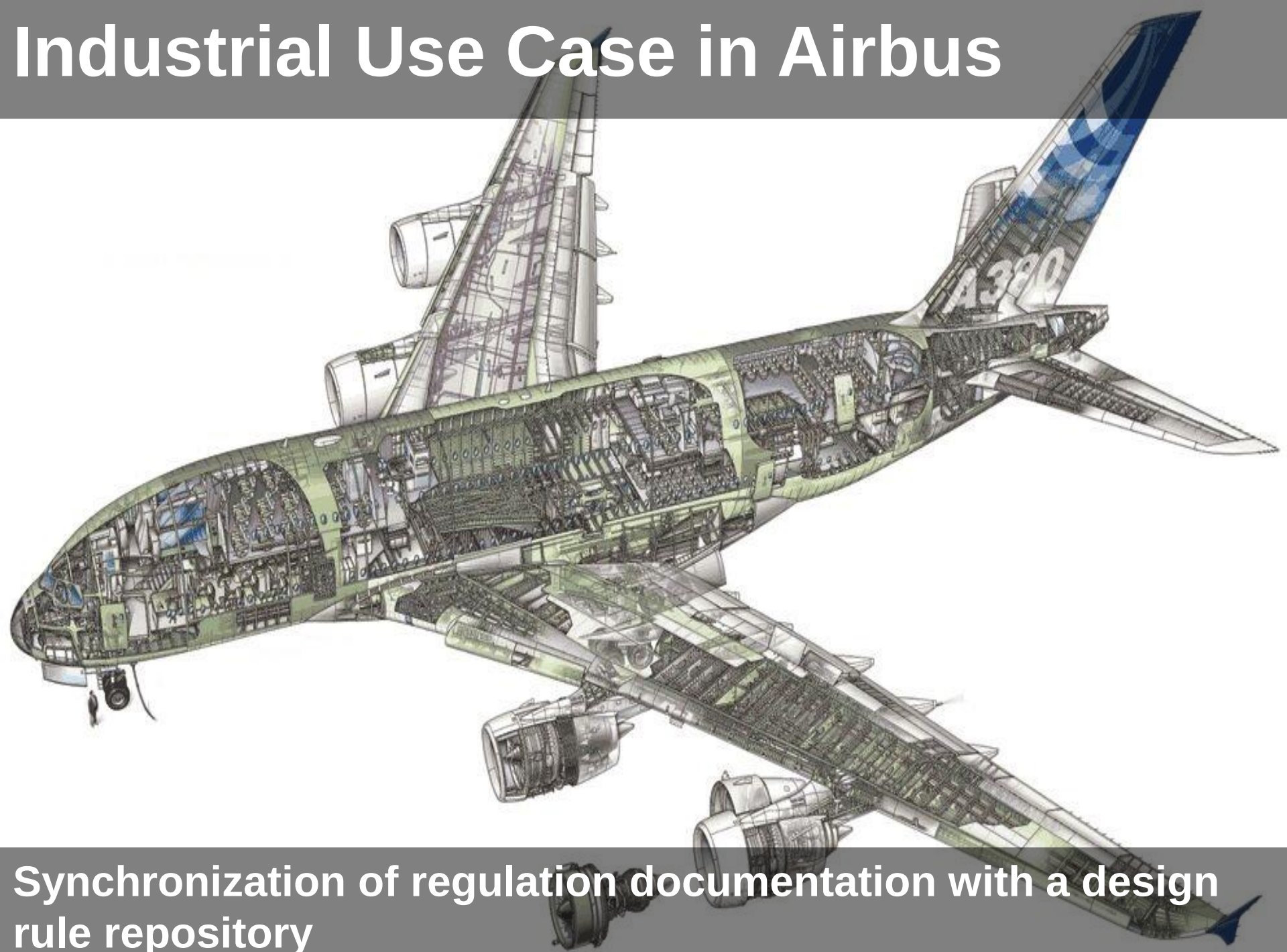
bi-directional Knowledge Capture tool



What is the problem?

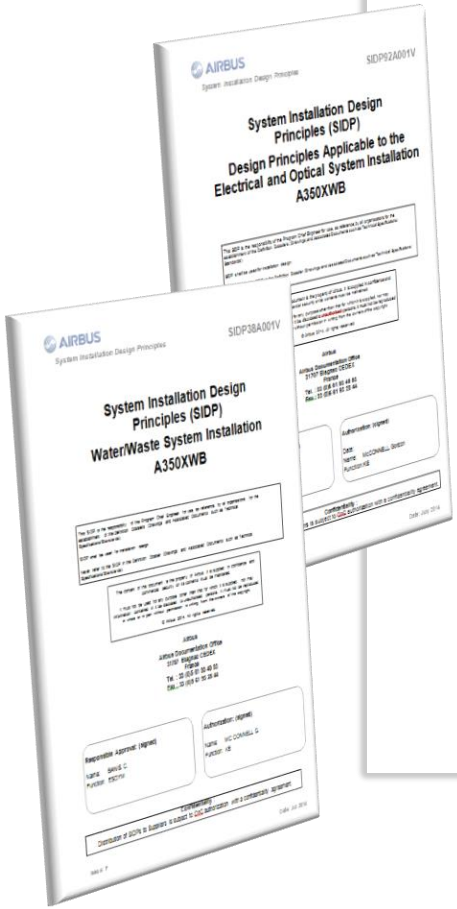
ITEA 3

Industrial Use Case in Airbus



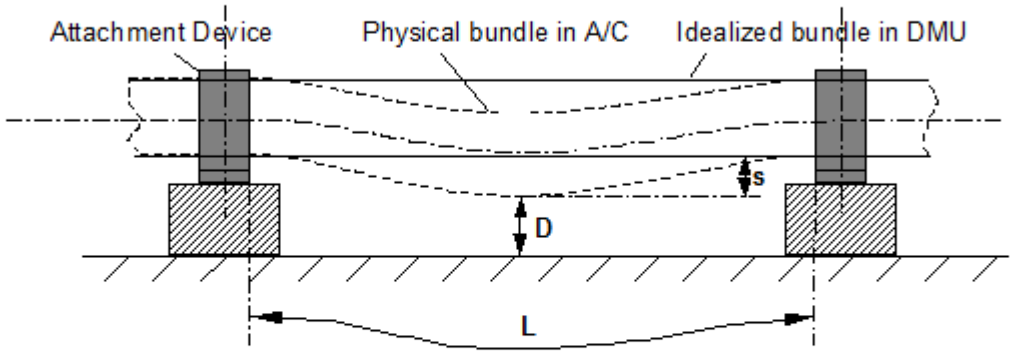
Synchronization of regulation documentation with a design rule repository

SIDP: System Installation Design Principles



SIDP92A001V-A-784

For installation of optical and electrical harnesses additional clearance for sagging (s) shall be provided as detailed below:



s...Sagging of bundle (real behavior of physical bundle in A/C due to gravity, ageing, etc.)
D...Required Distance
L...Actual length of a bundle segment between two Attachment Points (as designed in DMU)

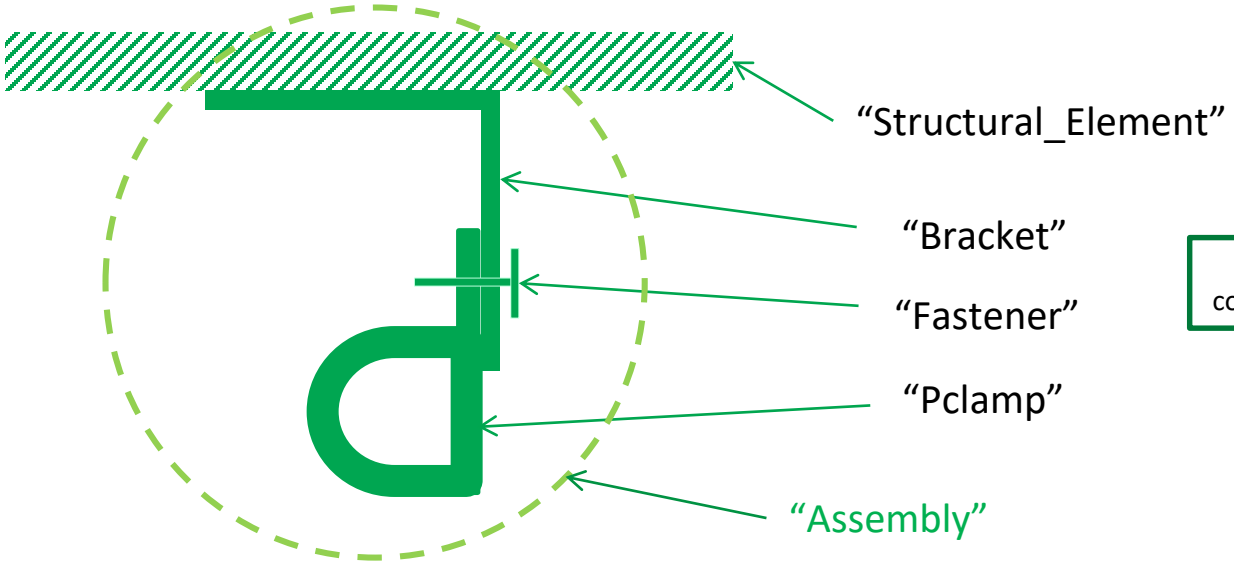
Figure 6: Sagging of bundles between attachment points

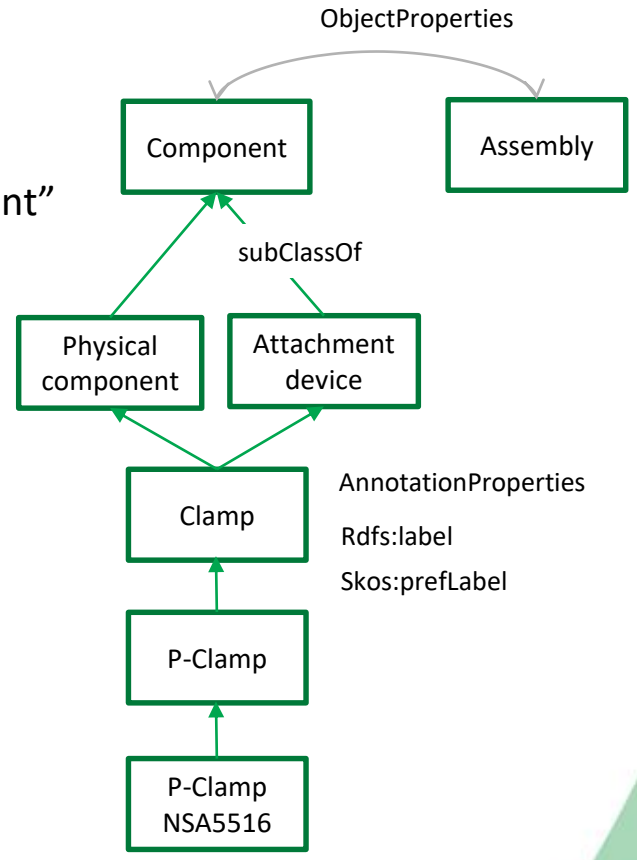
Note: Unless the bundle has a straight routing, L is bigger than the pitch between the Attachment Points.

Component Ontology and Rules

Objectives:

- Manage rules/design principles and improve traceability
- Automate identification of design conflicts against rules

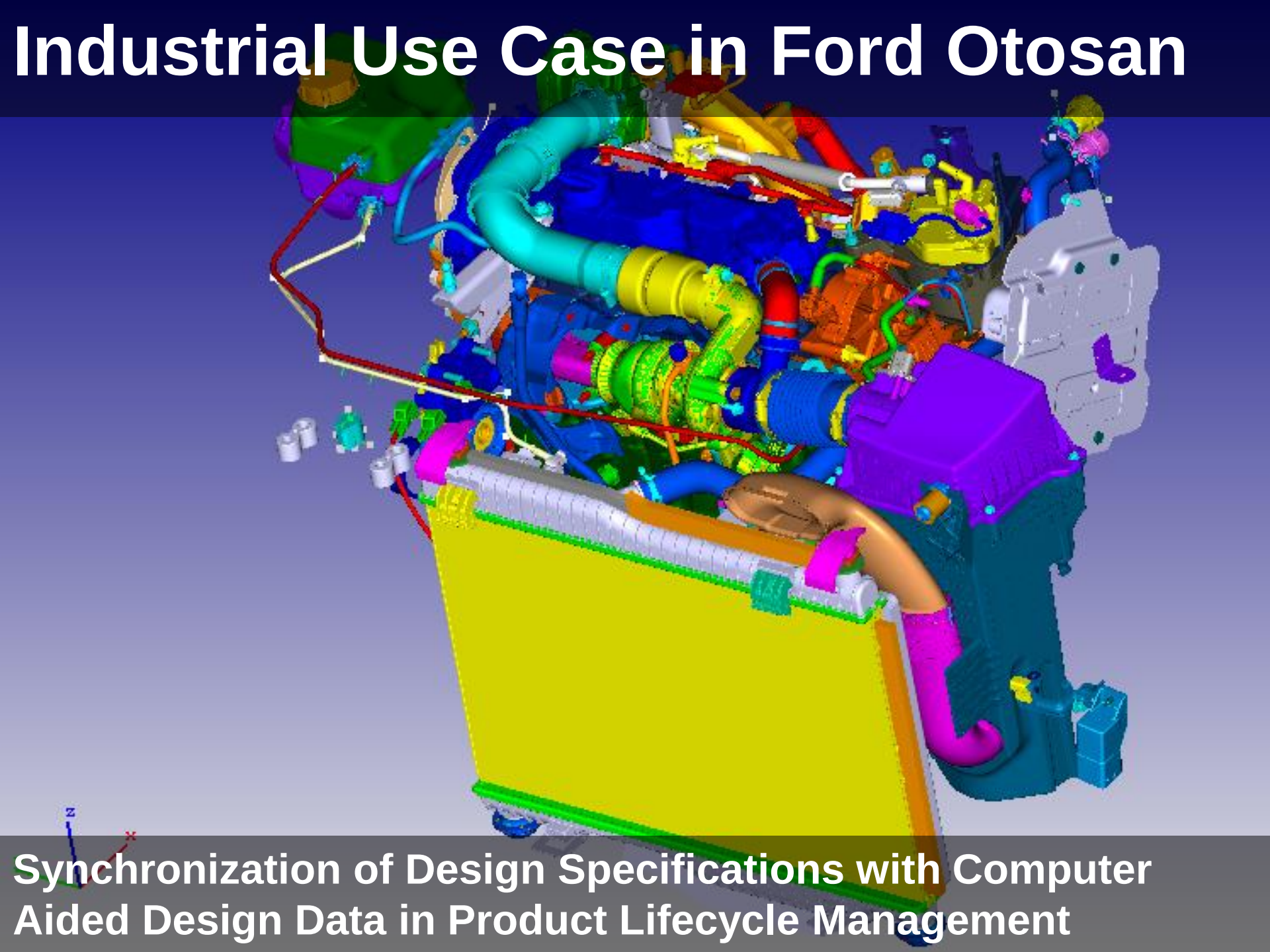




"P-clamp NSA5516 can be fixed on X with Y"

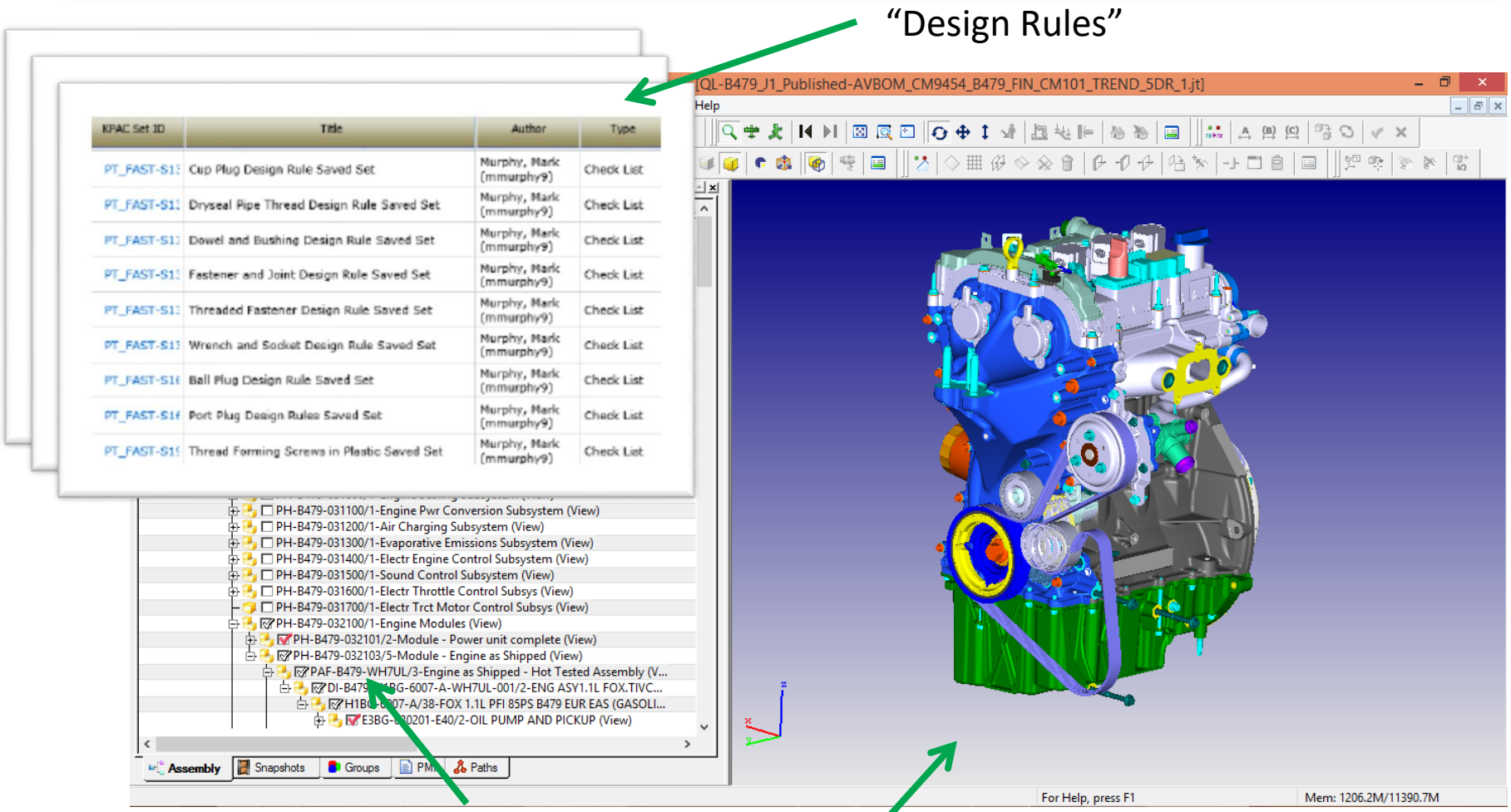
"Physical component" "Standard reference"

Industrial Use Case in Ford Otosan

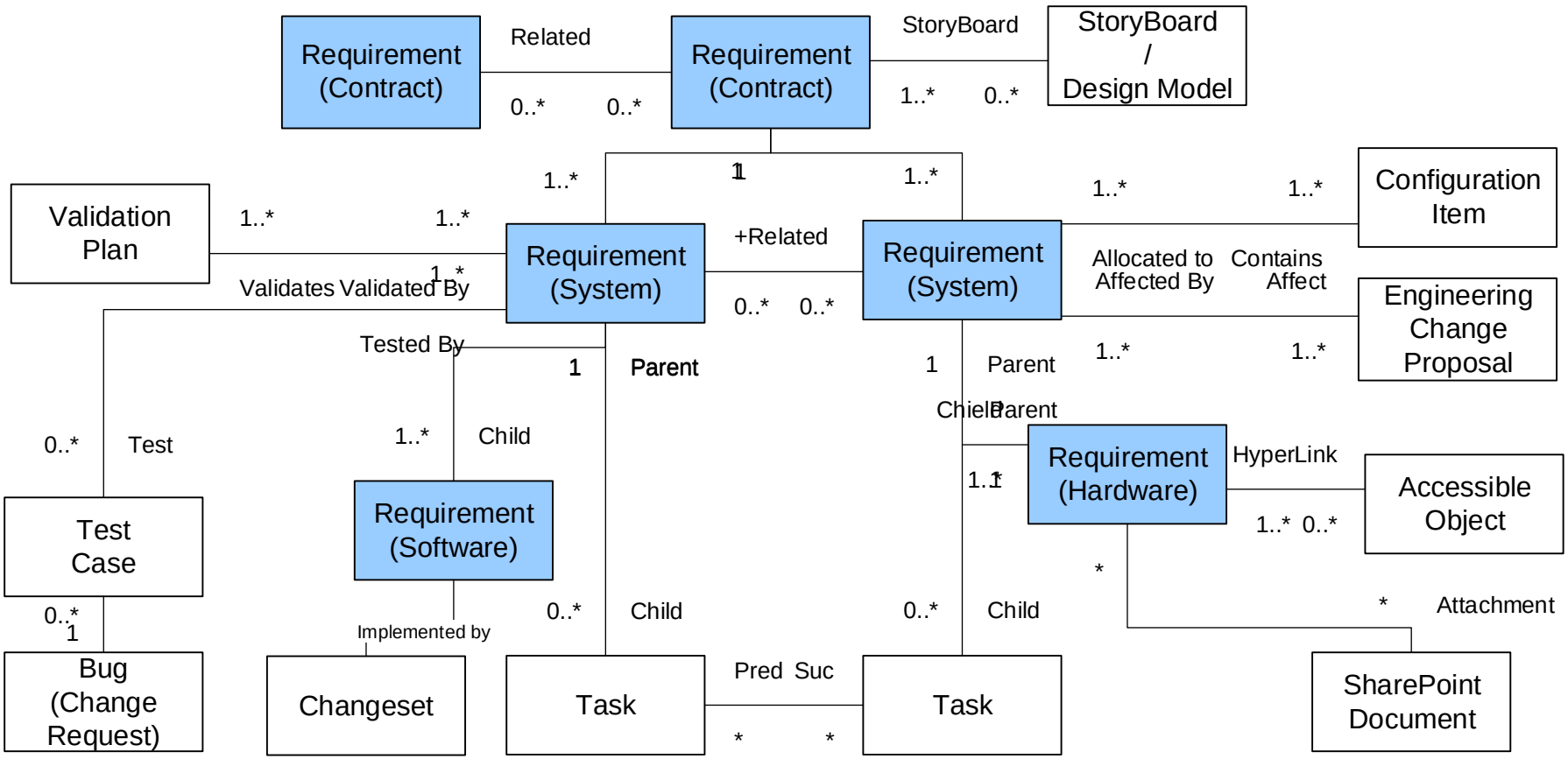


Synchronization of Design Specifications with Computer Aided Design Data in Product Lifecycle Management

BOM and Design Specifications



Industrial Use Case in Havelsan

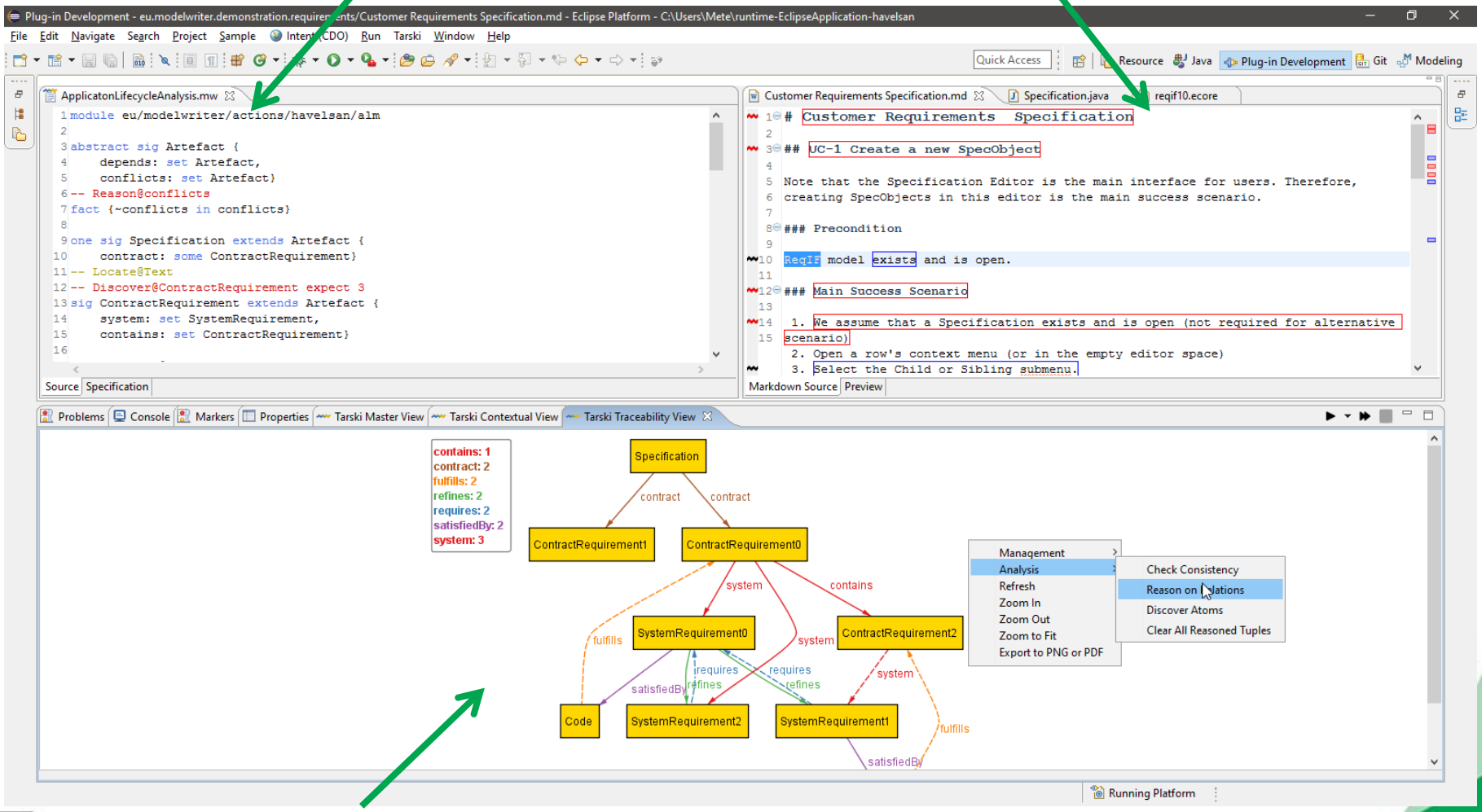


Integration with Application Lifecycle Management to ensure reliability and consistency in the system under development.

Automated Analysis of Dynamically Configured Traceability Semantics

"Traceability Rules to define traceability semantics"

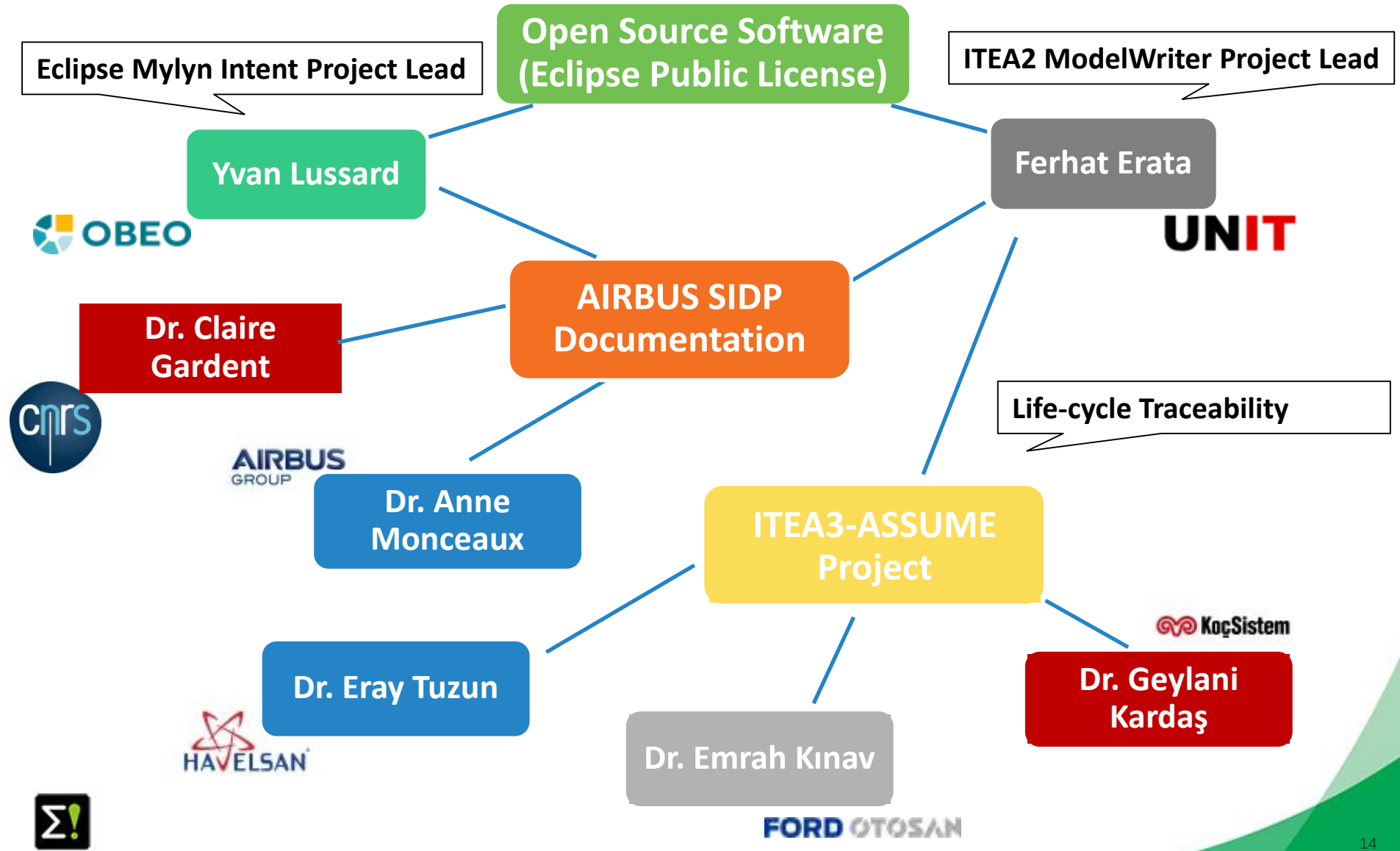
Artefacts or part of artefacts



"Various Traceability Analysis might be performed"

Level of Collaboration within ModelWriter

International Collaboration



Level of Collaboration within ModelWriter

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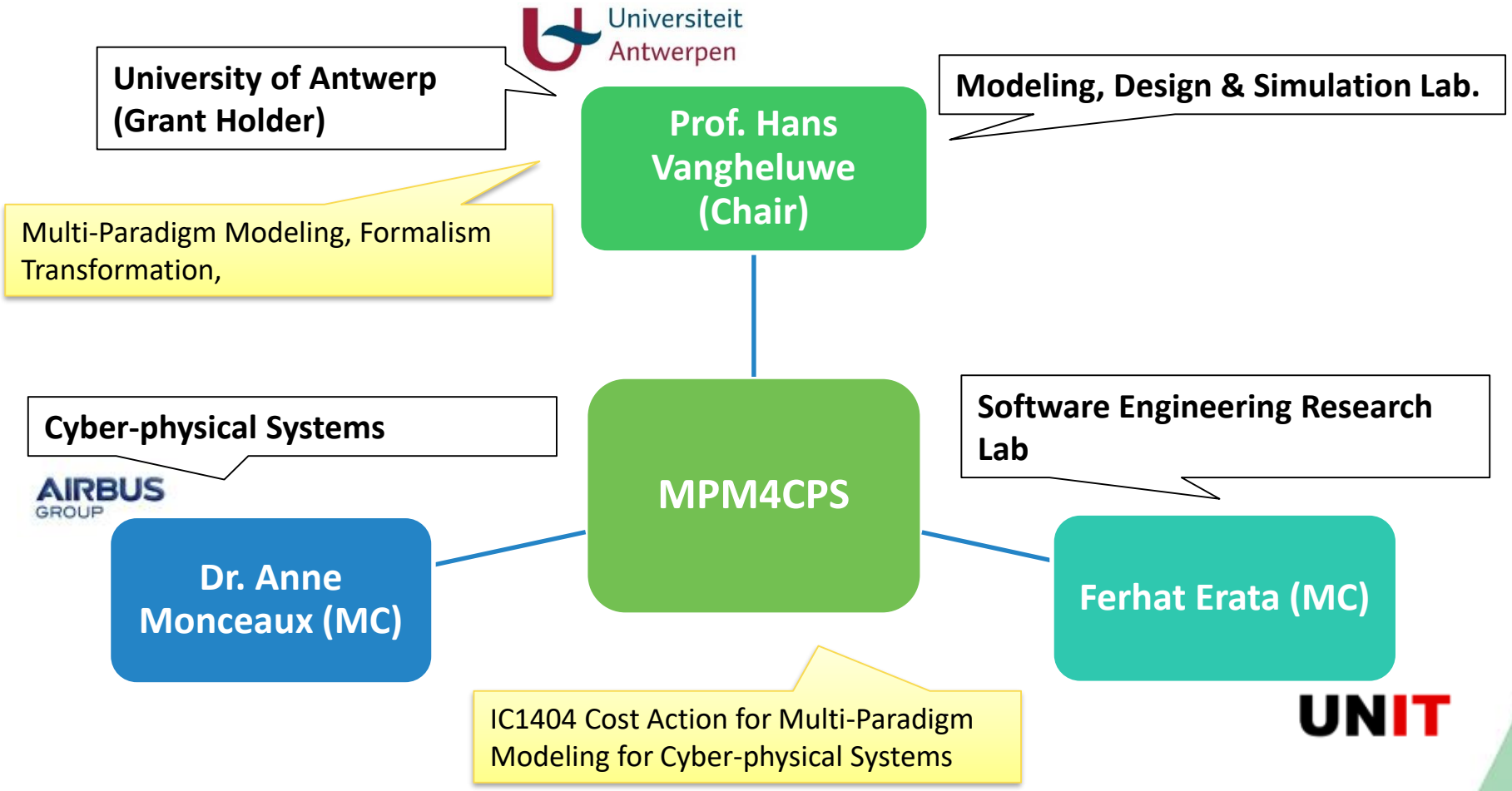


ModelWriter Activities in the First Year

https://github.com/modelwriter/workshops

Project Kick-off in Istanbul, Turkey (Nov 08, 2014) [M1]

Initial Architectural Design, Indutrial Use Cases, Technical WP discussions

Collaboration Infrastructure

The 1st International ModelWriter Workshop in Izmir, Turkey (Jan 15-17, 2015) [M4]

Exploitation: Havelsan's participation

The 1st International Eureka Project Exhibition in Berlin, Germany (Mar 10-11, 2015) [M6]

Consolidated User Requirements & Review

The 2nd International ModelWriter Workshop in Brussels, Belgium (Apr 30, 2015) [M7]

Software Requirements Review & Architecture

The 3rd International ModelWriter Workshop in Toulouse, France (Jun 22-23, 2015) [M10]

Rehearsal & Review

The 4th International ModelWriter Workshop in Brussels, Belgium (Sep 23-24, 2015) [M12]

Integration of software components

The 5th International ModelWriter Workshop in Ludwigsburg, Germany (Nov 2-5, 2015) [M16]

ModelWriter Activities in the Second Year

https://github.com/modelwriter/workshops

Product Owner Review Meeting

The 6th International ModelWriter Workshop in Paris, France (Feb 15-16, 2016)

ModelWriter is positioned on the Working Groups of this Cost Action

ICT Cost Action - MPM4CPS WG meeting at Vienna, Austria, on the 15-16 April, 2016

The 7th International ModelWriter Technical Workshop in Toulouse, France (6 June 2016)

Future of ModelWriter is discussed

The 7th Int'l ModelWriter Brainstorming Session in Toulouse, France at Airbus (9 June 2016)

The 7th Int'l ModelWriter Coordination Meeting in Toulouse, France at Airbus (10 June 2016)

Poster Presentation

ModelWriter Poster Presentation SAT/SMT/AR Summer School 2016

Participation in International Joint Conference on Automated Reasoning (IJCAR) 2016

ModelWriter Activities in the Second Year

https://github.com/modelwriter/workshops

Verification Technology, Systems & Applications (VTSA) Summer School (Aug 29- Sept 02, 2016)

ICT Cost Action - MPM4CPS WG meeting at Gdansk, Poland (Sep 13-16, 2016)

A paper is submitted to ACM Applied Computing Symposium and under review.

Participation in Workshop on Software Correctness and Reliability (Oct 7-8 2016)

The 8th International ModelWriter Technical Workshop in Toulouse, France (13 June 2016)

ICT Cost Action - MPM4CPS WG meeting at Malaga, Spain (Nov 24-25, 2016)

ModelWriter
Work Packages & Technical Innovations

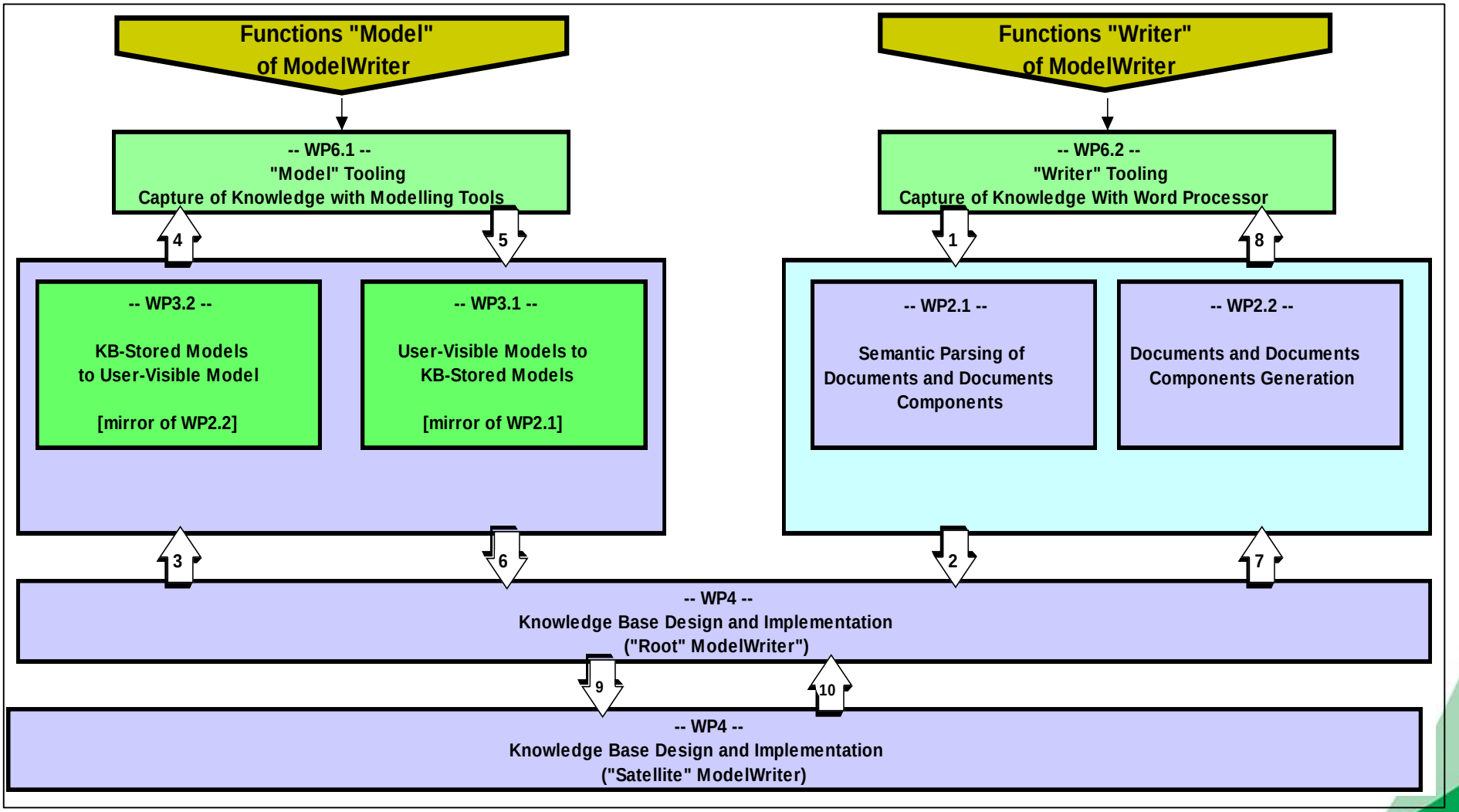
WP1 Industrial Use Cases and Requirements (AIRBUS)

WP2 (LORIA)	WP3 (UNIT)	WP4 (MANTIS)	WP6 (OBEO)
• Semantic Parser • Document Generation • bi-directional transformation between text and formal knowledge representation	• Bi-directional synchronization mechanism between texts and models • Configuration & Traceability Components • Consistency checker plug-in for consistency	• A federated Knowledge Base and its API • Synchronization mechanism between texts/models & knowledge base	• A complete “ModelWriter” tool integrating of all these in a consistent way • User Interfaces

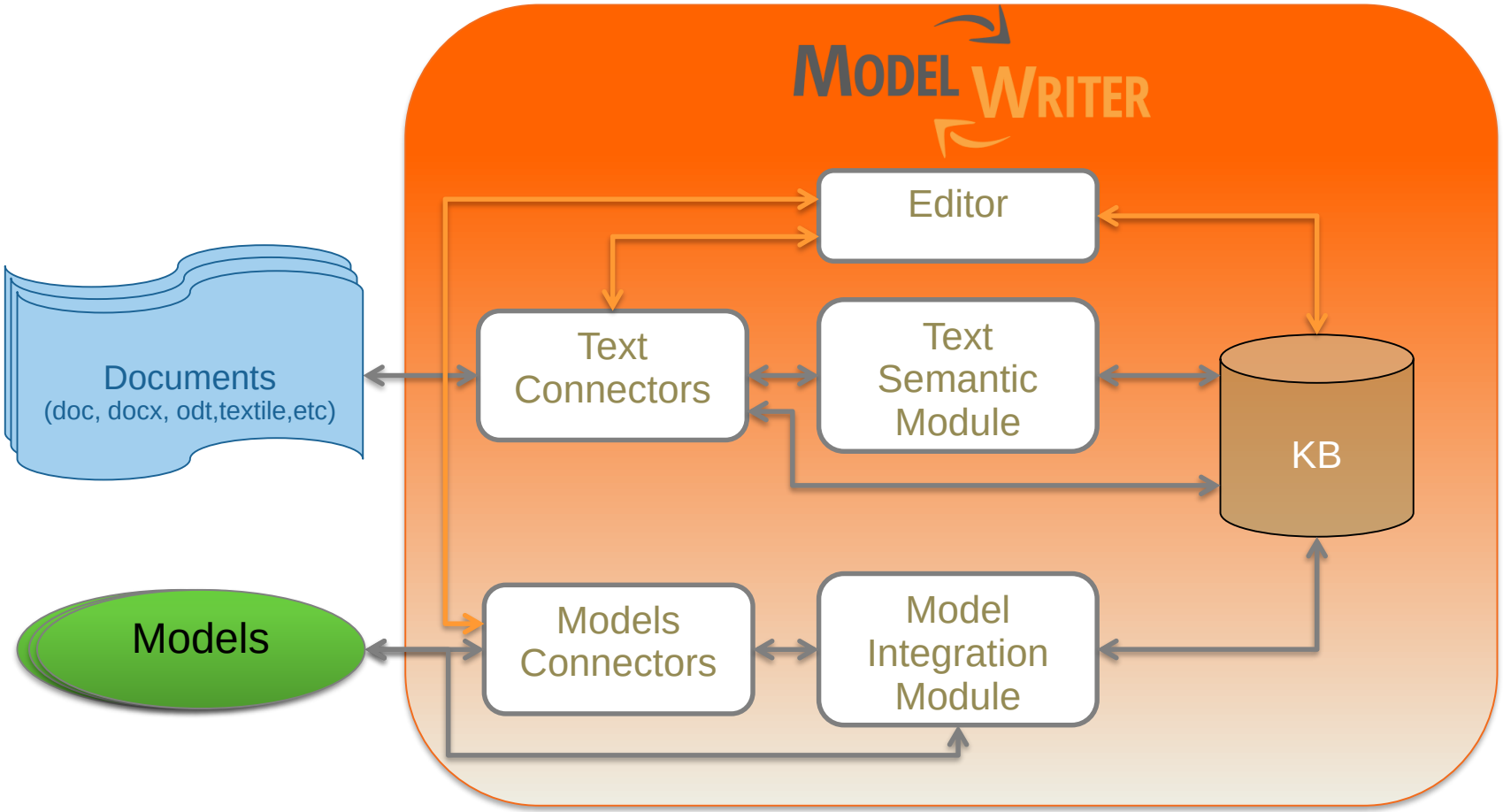
WP5 Project Management (UNIT)

WP7 Standardization, Dissemination and Exploitation (OBEO)

ModelWriter
Technological components & interactions



ModelWriter
Conceptual Architecture



Other topics

- PCA is finalized and Turkish Partners signed the document.
- The number of document deliverables are reduced.
- Ford-Otosan joined in the consortium as a self-founded partner like Havelsan.
- We focus on the use cases of Large Industrial Partners' use cases.

Thank you for your attention
We value your opinion and questions.