

# 2 Overview of the Project

*Ferhat Erata*




*UNIT, ModelWriter Project Leader*

# ModelWriter

## Text & Model-Synchronized Document Engineering Platform

The project envisions an integrated authoring environment called "ModelWriter" for Technical Authors (such as Software or Systems Engineers etc.) which will combine a Semantic Word Processor (= the "Writer" part) and a Knowledge Capture Tool (= the "Model" part).

## Project information

<b>Project name</b>	13028 ModelWriter
<b>Status</b>	Running
<b>Period</b>	Oct 2014 - Sep 2017
<b>Call</b>	ITEA 2 Call 8
<b>Challenge</b>	Knowledge-based society
<b>Website</b>	<a href="http://www.modelwriter.eu">www.modelwriter.eu</a>
<b>Partners</b>	10
<b>Countries</b>	 Belgium  France  Turkey

## Project leader














**Name**  
 Ferhat Erata  
**Organisation**  
 UNIT Information Technologies  
 R&D Ltd.  
**Country**  
 Turkey  
**Project involvement**  
 13028 ModelWriter

## Project documents

### Project publications

-  [ITEA Annual report 2013 published online](#)
-  [ModelWriter Posters Co-summit 2015](#) 
-  [ModelWriter Project Leaflet](#) 

## Project partners

<b>Airbus Group SAS</b>  France	<b>Centre National de la Recherche Scientifique</b>  France	<b>Havelsan</b>  Turkey	<b>Hisbim Bilgi ve İletişim Teknolojileri</b>  France
<b>Katholieke Universiteit Leuven</b>  Belgium	<b>KoçSistem</b>  Turkey	<b>Mantis</b>  Turkey	<b>beo</b>  France
<b>Sogeti Belgium</b>  Belgium	<b>UNIT Information Technologies R&amp;D Ltd.</b>  Turkey	<b>Ford Otosan</b>  Turkey	

Industrial End User. Application Lifecycle Management (ALM)

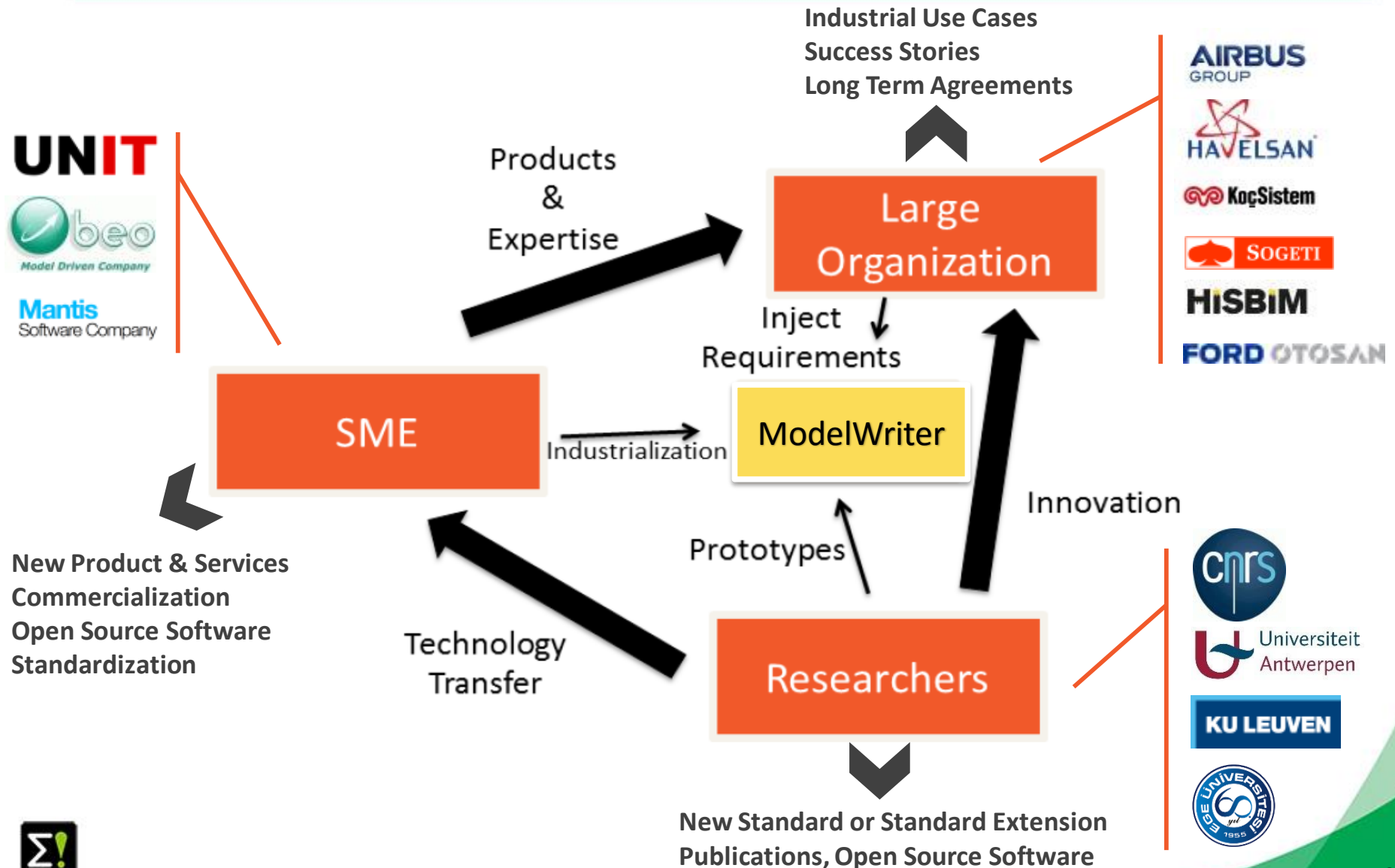
Industrial End User. Testing & Global Engineering Services

Industrial End User. Product Lifecycle Management (PLM)



# Industrialization Triangle in ModelWriter

## Open Source Software



# ModelWriter

## Project Overview



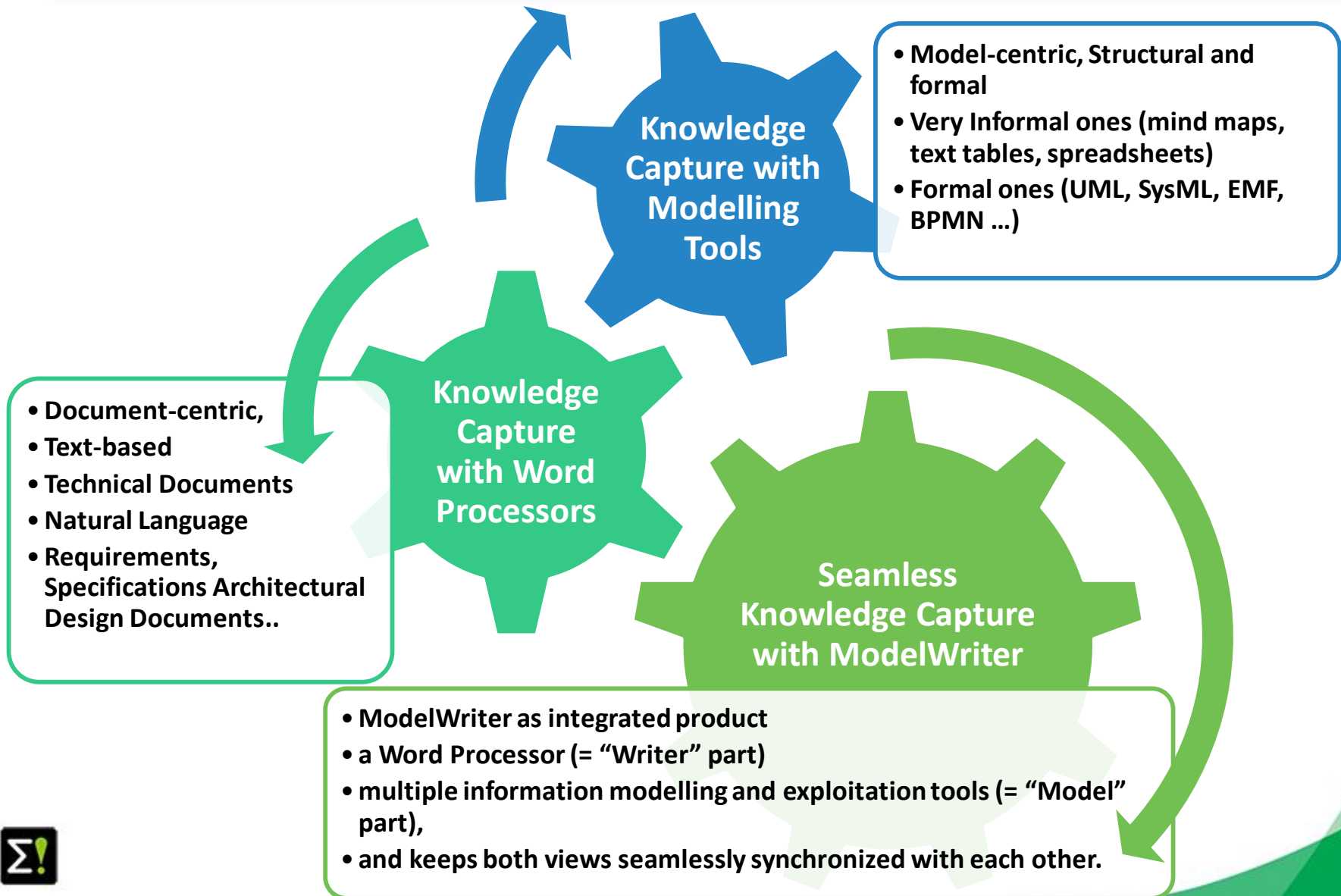
Resource Allocation: 68,71 person year

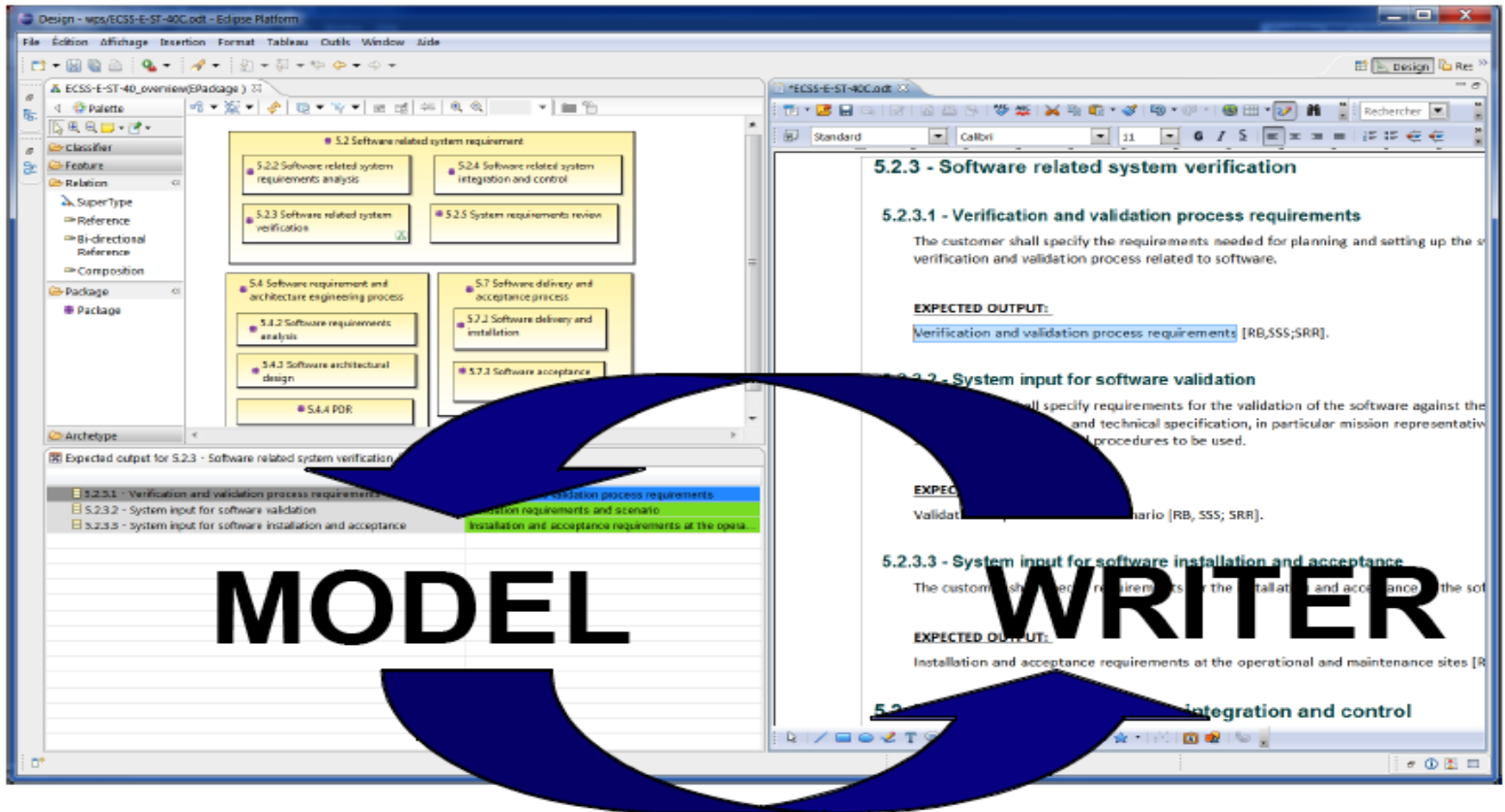
Project Duration: 36 months

Planned Budget: 5,543,000 Euro

Start and Finish Date: 01 Oct 2014 – 30 Sep 2017

Open-Source Software Platform to be submitted to Eclipse Foundation





Semantic Word Processor  
(Text-Based Knowledge Extractor)

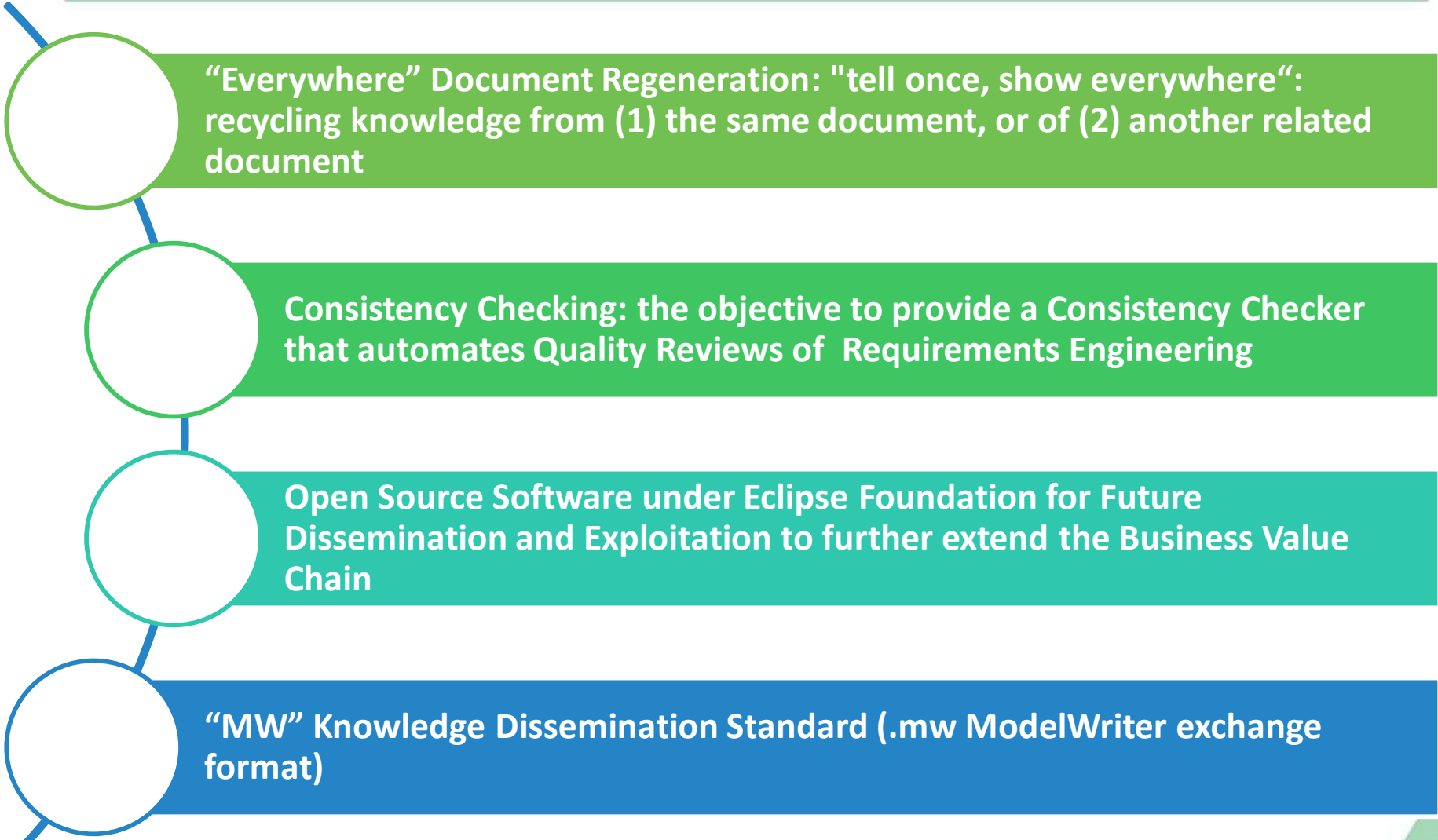
Understands the various textual parts of a document expressed in Natural Language

Reveals concepts and relationships between them (“Model”-part)

Consistency & Completeness Checking



## Further Knowledge Valorizations



“Everywhere” Document Regeneration: “tell once, show everywhere”: recycling knowledge from (1) the same document, or of (2) another related document

Consistency Checking: the objective to provide a Consistency Checker that automates Quality Reviews of Requirements Engineering

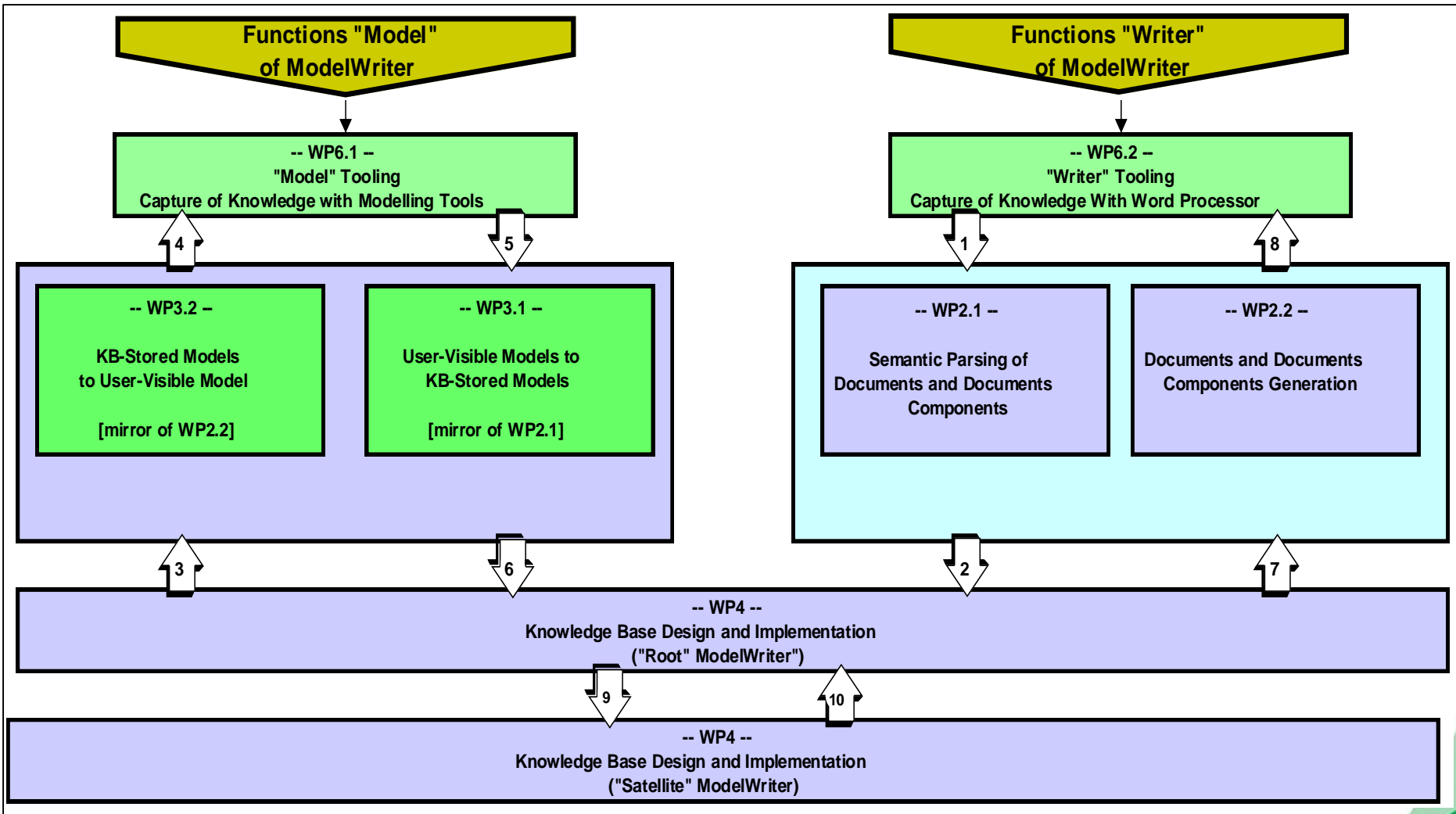
Open Source Software under Eclipse Foundation for Future Dissemination and Exploitation to further extend the Business Value Chain

“MW” Knowledge Dissemination Standard (.mw ModelWriter exchange format)



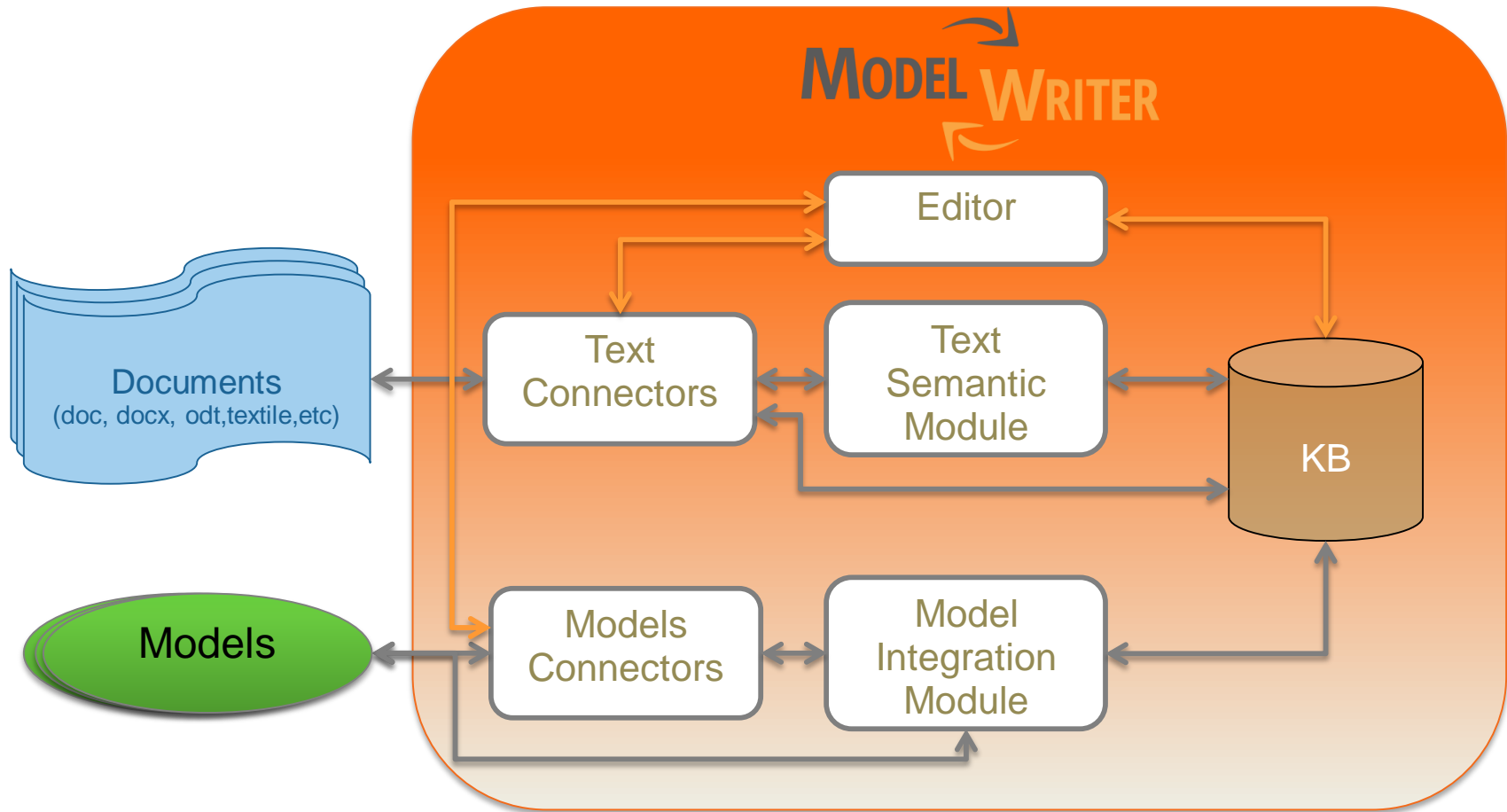


## Technological components & interactions



# ModelWriter

## Conceptual Architecture



## Work Packages & Technical Innovations

### WP1 Industrial Use Cases and Requirements (AIRBUS)

#### WP2 (LORIA)

- Semantic Parser
- Document Generation
- bi-directional transformation between text and formal knowledge representation

#### WP3 (UNIT)

- Bi-directional synchronization mechanism between texts and models
- Configuration & Traceability Components
- Consistency checker plug-in for consistency

#### WP4 (MANTIS)

- A federated Knowledge Base and its API
- Synchronization mechanism between texts/models & knowledge base

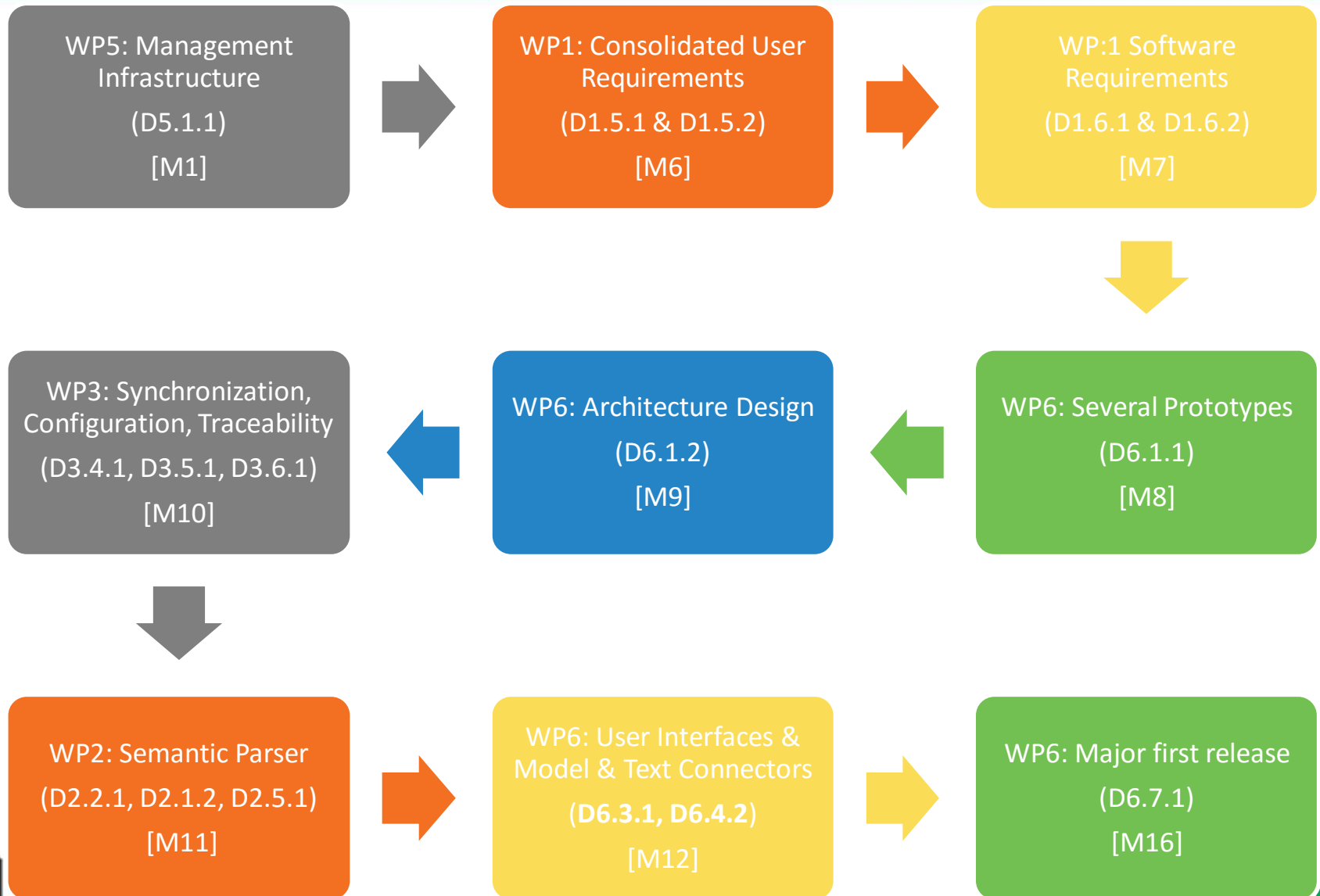
#### WP6 (OBEO)

- A complete “ModelWriter” tool integrating of all these in a consistent way
- User Interfaces

### WP5 Project Management (UNIT)

### WP7 Standardization, Dissemination and Exploitation (OBEO)

## Overall Progress in the first year



# ModelWriter Workshops in the First Year

<https://github.com/modelwriter/workshops>



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

Initial Architectural Design, Industrial 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]

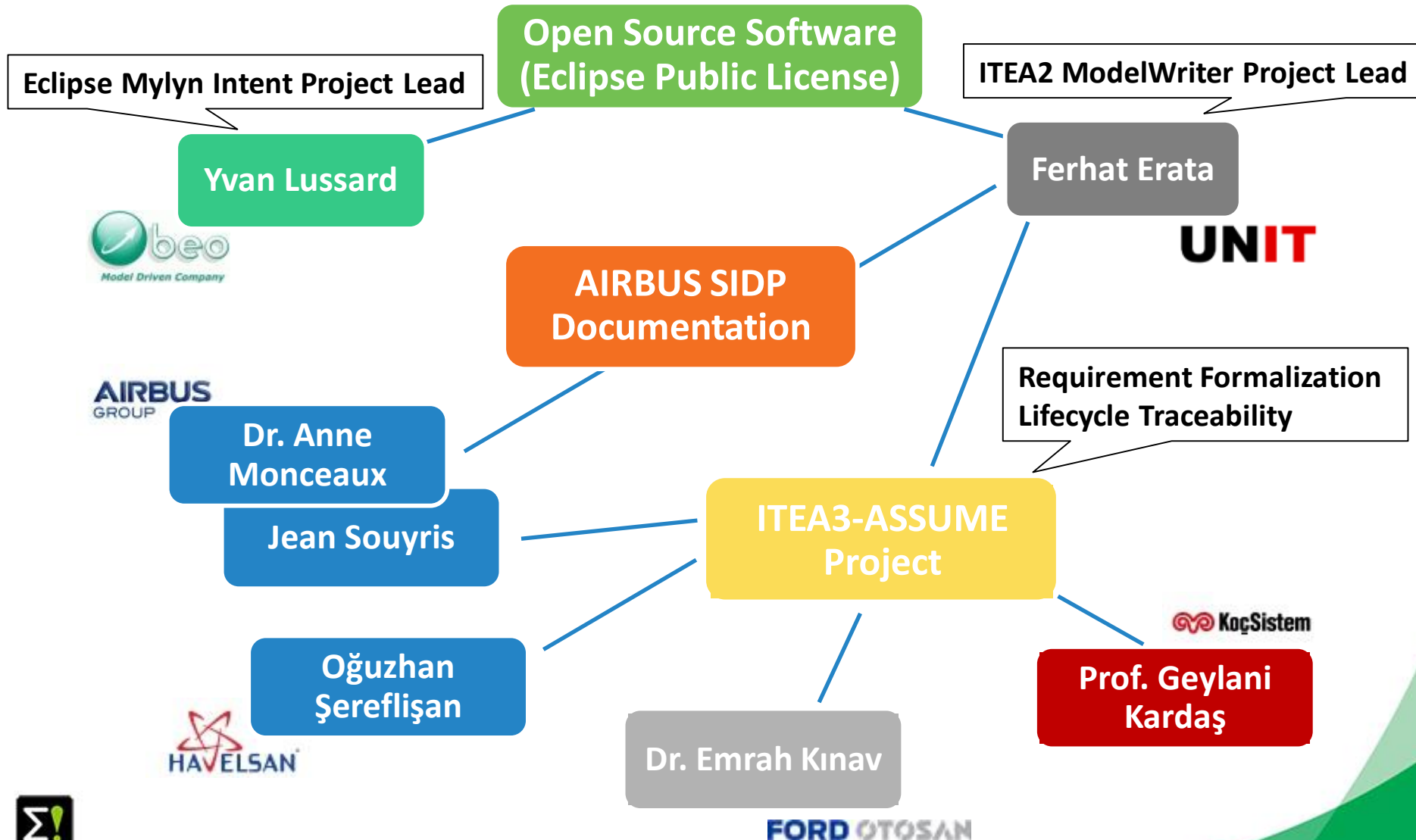
Integration of software components

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



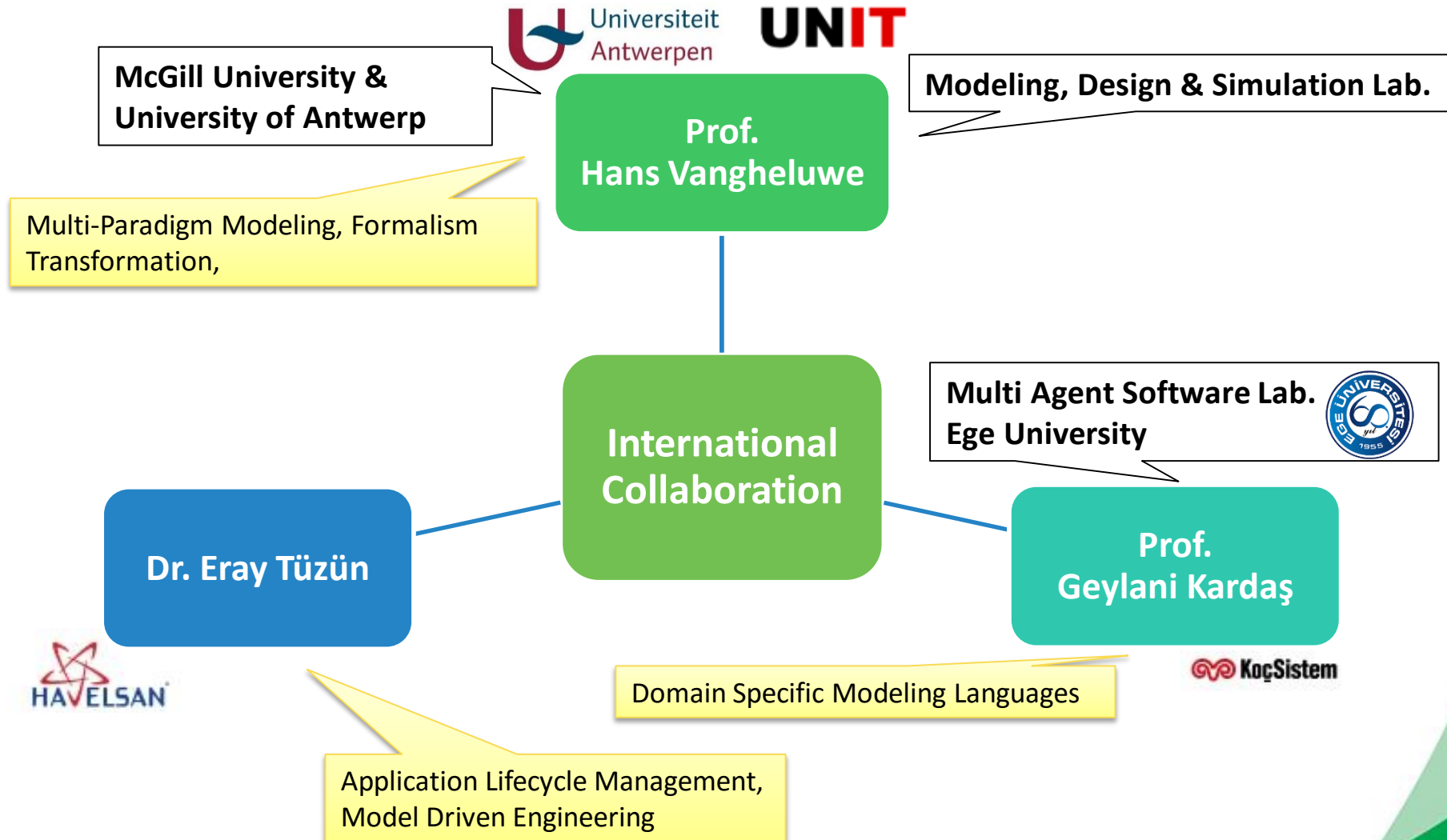
# Level of Collaboration within ModelWriter

## International Collaboration



# Level of Collaboration within ModelWriter

## International Collaboration





# Open Source Campaign


## Open Call for Industrial User Stories

- *Shape the future ModelWriter*
- *Early adaptation of the technology*
- *Long Term Support*




# ModelWriter Open Source Campaign

<https://github.com/modelwriter>





[Pull requests](#) [Issues](#) [Gist](#)



## ITEA2-ModelWriter Project

Text & Model-Synchronized Document Engineering Platform

 Europa  <http://www.modelwriter.eu>  [project@modelwriter.eu](mailto:project@modelwriter.eu)

[Repositories](#) [People 25](#) [Teams 27](#) [Settings](#)

[Filters](#)

[+ New repository](#)

### WP5

Work Package 5 - Project Management (UNIT)

Updated 2 hours ago



CSS ★ 0 🍴 0

### WP3

Work Package 3 - Model to/from Knowledge Base (UNIT)

Updated 3 days ago



Java ★ 0 🍴 1

### Workshops

Repository dedicated to workshops

Updated 3 days ago



★ 0 🍴 0

### Deliverables

Project Monitoring, Tracking, Communication Management and Infrastructure

Updated 5 days ago



Java ★ 1 🍴 0

### People

25 >



[Invite someone](#)



# ModelWriter Requirements & User Stories

<https://waffle.io/modelwriter/requirements>



The screenshot shows a Kanban board for the project 'modelwriter/requirements'. The board is organized into four columns: 'User Stories' (13 items), 'Confirmed' (3 items), 'In Progress' (0 items), and 'Done' (2 items). Each item is a card representing a requirement or user story, with a title, description, and associated documents. The 'In Progress' column is currently empty and contains a message: 'Let others know you're working on an issue by dragging it to In Progress.' The 'User Stories' column contains items 10 through 14, 'Confirmed' contains items 15 through 17, and 'Done' contains items 18 and 19. A sidebar on the left contains navigation icons and a user profile. A green speech bubble icon is visible in the bottom right corner of the board area.

modelwriter/requirements

+ Add Issue

Filter Board

User Stories 13

Confirmed 3

In Progress 0

Done 2

14

The TRAM will be able to compose transformations.

Software Requirements Document (SRD)

WP3 - Model to/from Knowledge Base

13

The TRAM validates such parameters and also the input models before a transformation takes place.

Software Requirements Document (SRD)

WP3 - Model to/from Knowledge Base

12

A mechanism is needed to register the available transformations in ModelWriter

Software Requirements Document (SRD)

WP3 - Model to/from Knowledge Base

11

M2M Transformation Framework must synchronize the output models after its input models or configurations have been modified.

Software Requirements Document (SRD)

WP3 - Model to/from Knowledge Base

10

M2M Transformation Framework must keep traces between transformed models and its source models.

17

The system must support an open requirement authoring tools (such as RMF)

UC-TR-03 Generation and management of feature models

User Requirements Document (URD)

16

The system should support ReqIF standard.

UC-TR-03 Generation and management of feature models

User Requirements Document (URD)

15

BPMN 2.X shall be supported as the Business Process Modeling Language in the tool.

UC-TR-05 Synchronous Business Process Design with Use Cases

User Requirements Document (URD)

In Progress

Let others know you're working on an issue by dragging it to In Progress.

19

Fe

18

readme folder added

### UC-TR-03

IBM Rational Doors Plug-in and Eclipse Requirement Frameworks Sub-component which supports OMG's ReqIF Standard.

Sync between Requirement Documentation and Feature Models

**KoçSistem, UNIT, HAVELSAN, AIRBUS**

### UC-TR-04

Demonstrate that the ModelWriter concept can be usefully applied on ALM

Integration with Application Lifecycle Management (ALM) Tools

**UNIT, HAVELSAN KoçSistem**

### UC-TR-05

Integration with Product Lifecycle Management (PLM), Technical Engineering Documents

**UNIT, KoçSistem, Ford Otosan**

Integration with Siemens Workspace

### UC-FR-02

Help determining the impacts of a change in the Enterprise Architecture

Enterprise Architecture

[CEISAR - Center of Excellence in Enterprise Architecture](#)

**OBEO, TOTAL,  
AIR France, AXA**

### UC-FR-03

This use case will explore the use of ModelWriter concept to structure and manage a repository of system installation rules.

Synchronization of regulation documentation with a design rule repository

**OBEO, AIRBUS,  
LORIA**

### UC-FR-04

Focus on building synchronized links between regulation documents in natural language and rules (as models).

Production of a context specific design document

**OBEO, AIRBUS,  
LORIA**



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