

Integrate MBSE in established engineering processes for holistic lifecycle management

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ENAGAGE

DISTURB

DISCUSS



Vienna, Austria & Houston, Texas



A perspective view of a warehouse conveyor belt system. Several cardboard boxes are moving along the belt, which is flanked by metal guides. A red grid pattern is overlaid on the scene, suggesting a tracking or monitoring system. The text "Traceability should be consistent for all development artifacts." is superimposed in a large, yellow, sans-serif font on the left side of the image.

Traceability should be
consistent for all
development
artifacts.

History/Options of ALM Modeling Integrations (1/2)

- Point to Point (custom development – DXL!)
- CSV, EXCEL Import/Update
- Enterprise Service Bus Style
- Manual in Excel
- The full roundtrip Myth

History/Options of ALM Modeling Integrations (2/2)

- Traceability Platforms (SmartFacts, IncQuery Labs,...)
- ReqIF
- OSLC
- ALM concentration strategies
- Pipeline thinking
- SpeciF
- Yaml in git

The Graph (modeling) starts in ALM

Work Items

Search

Daniel Siegl
My Polarion

- Design
- Risks
- Planning
- Development
- Testing
- Maintenance
- Work Items**
- Documents & Pages

Expand

Save

ID Title

- DP-476 Anc
- DP-474 Driv
- DP-473 Driv
- DP-472 Driv
- DP-471 Sen

Edit Save

Passed Initial System Verification Test

Linked Work Items

Suspect	Role	Title
	has parent	DP-327 - General Operations
	verifies	DP-317 - Drive Pilot warnings on special conditions

Passed Verification - Version 1 - 20170730

Linked Work Items

Suspect	Role	Title
	has parent	DP-327 - General Operations
	verifies	DP-332 - DrivePilot is NOT compatible with any vehic



And you?

AGILE?

Really?

Main

Hotfix

Review

Develop

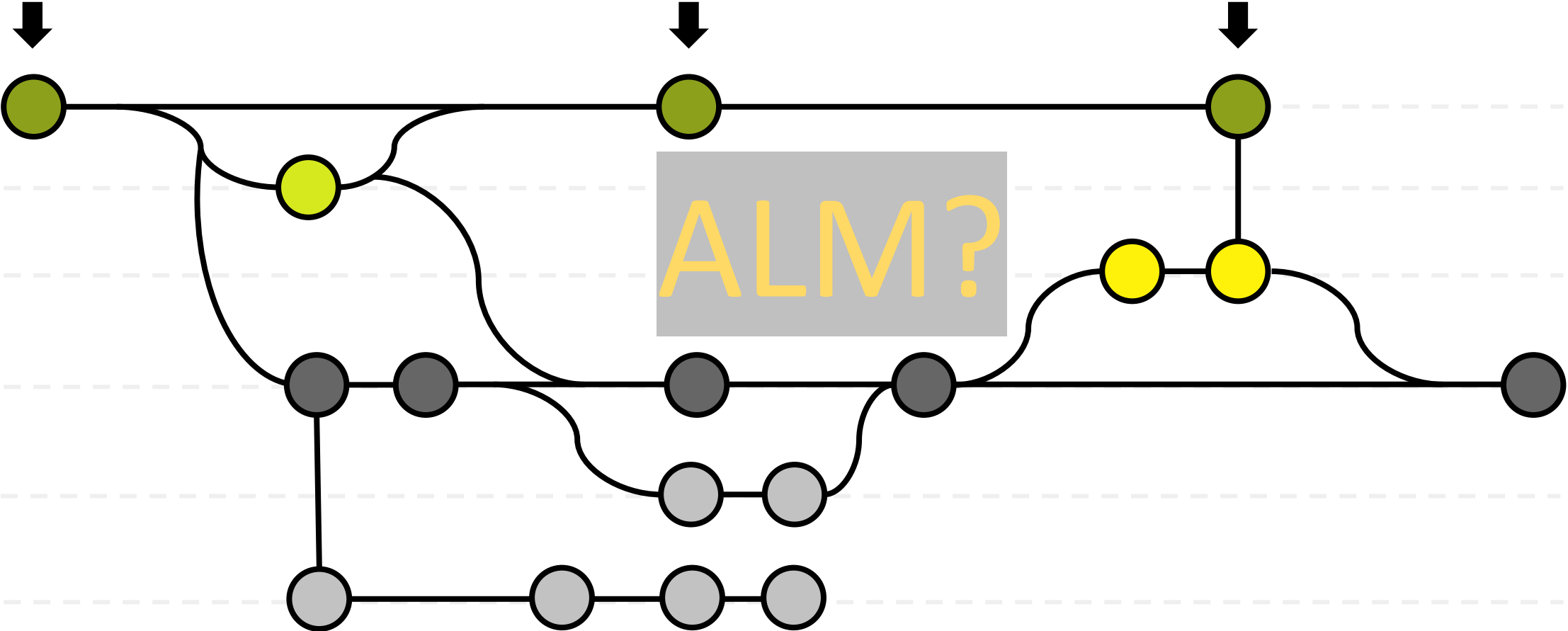
Feature

Feature

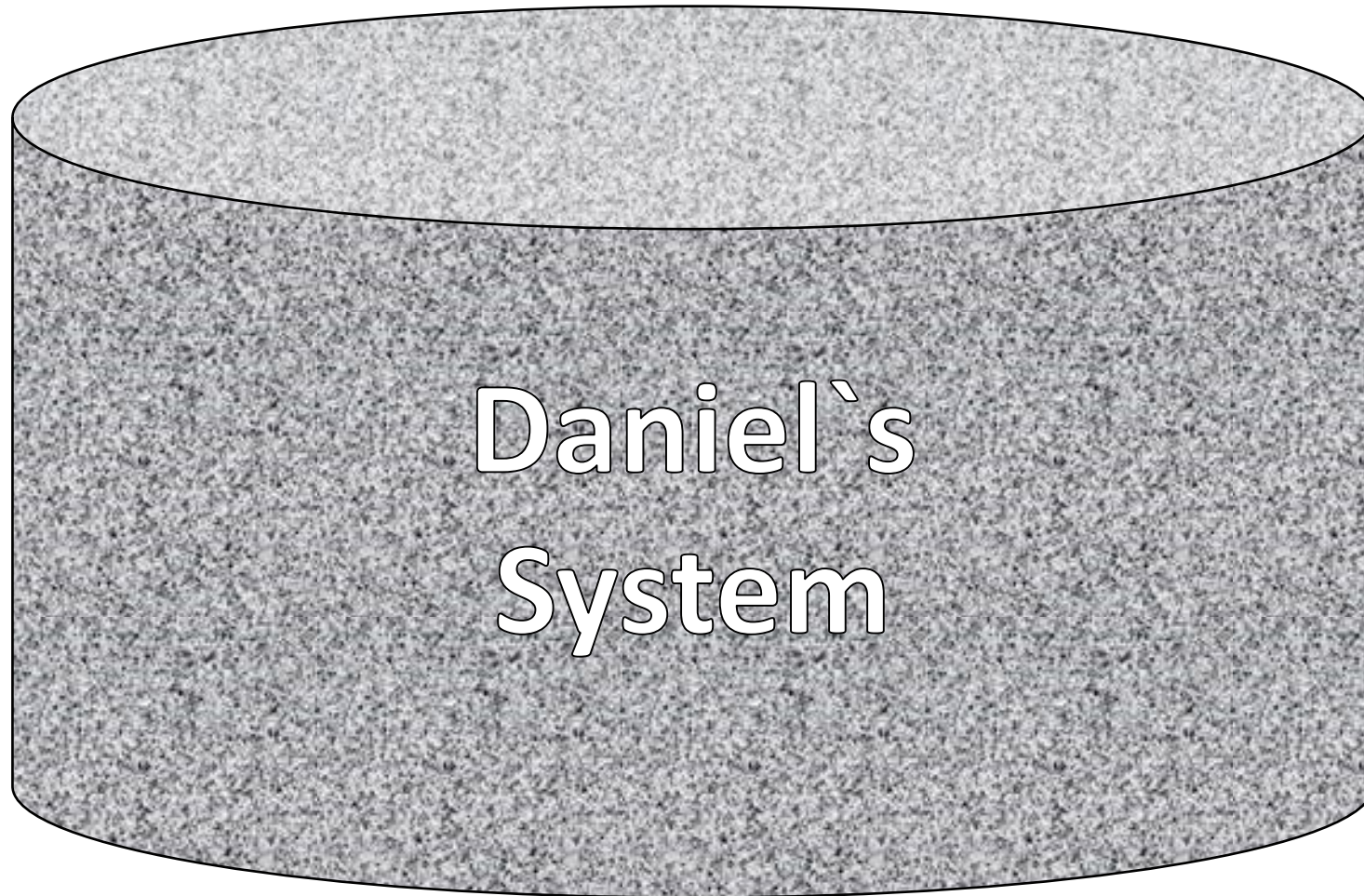
V1.1

V1.1

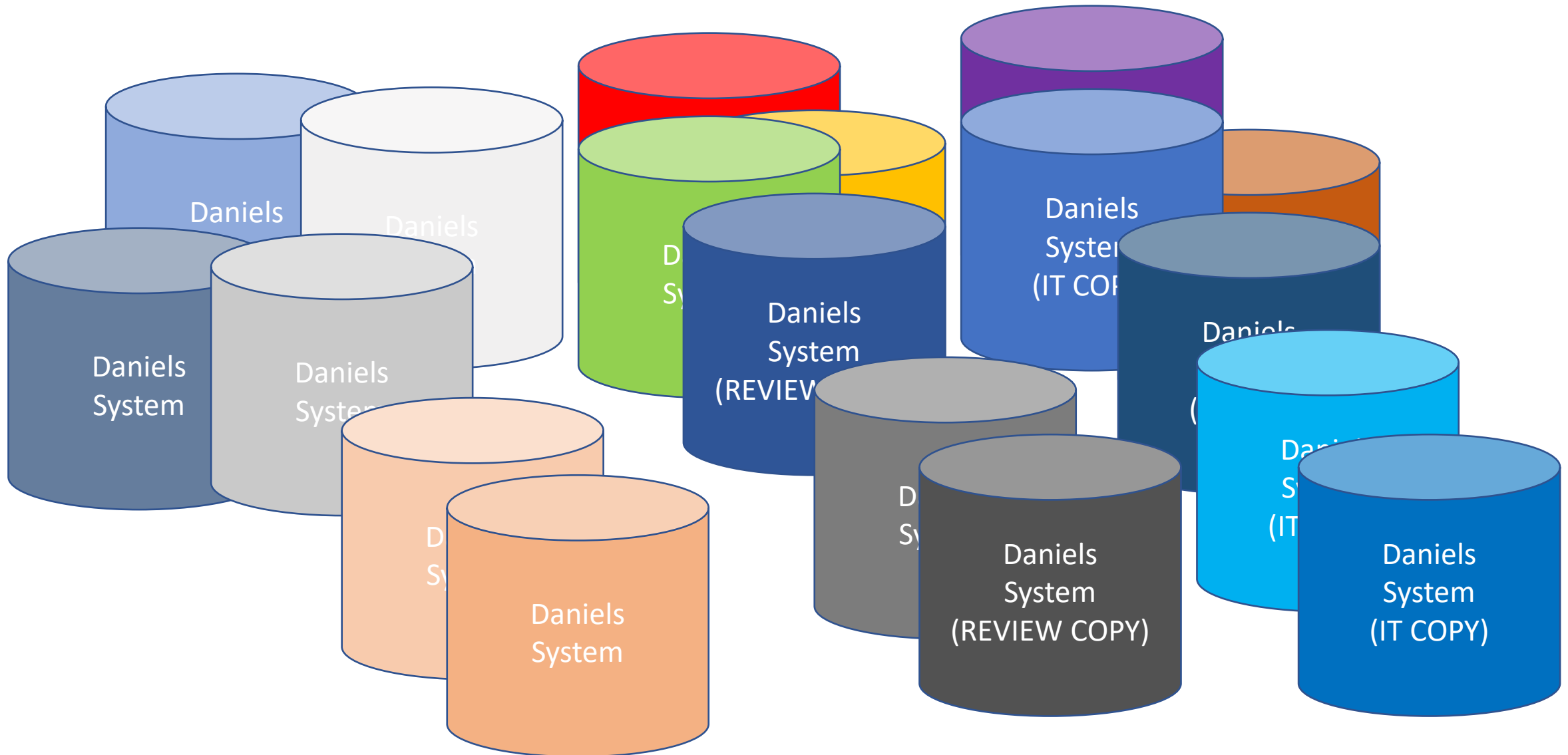
V1.2



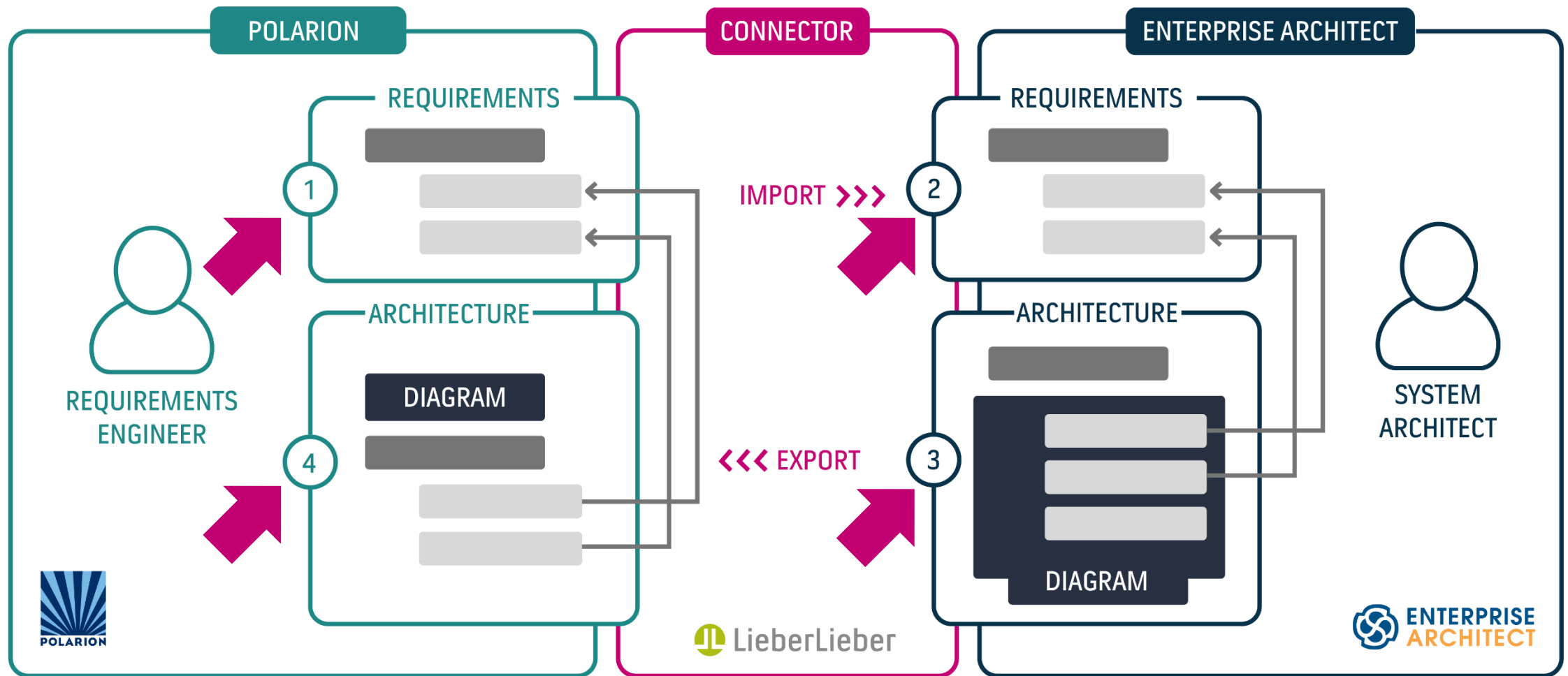
Central Repo



Multi Repos



Polarion-Connector - suggested Workflows



Main

Hotfix

Review

Develop

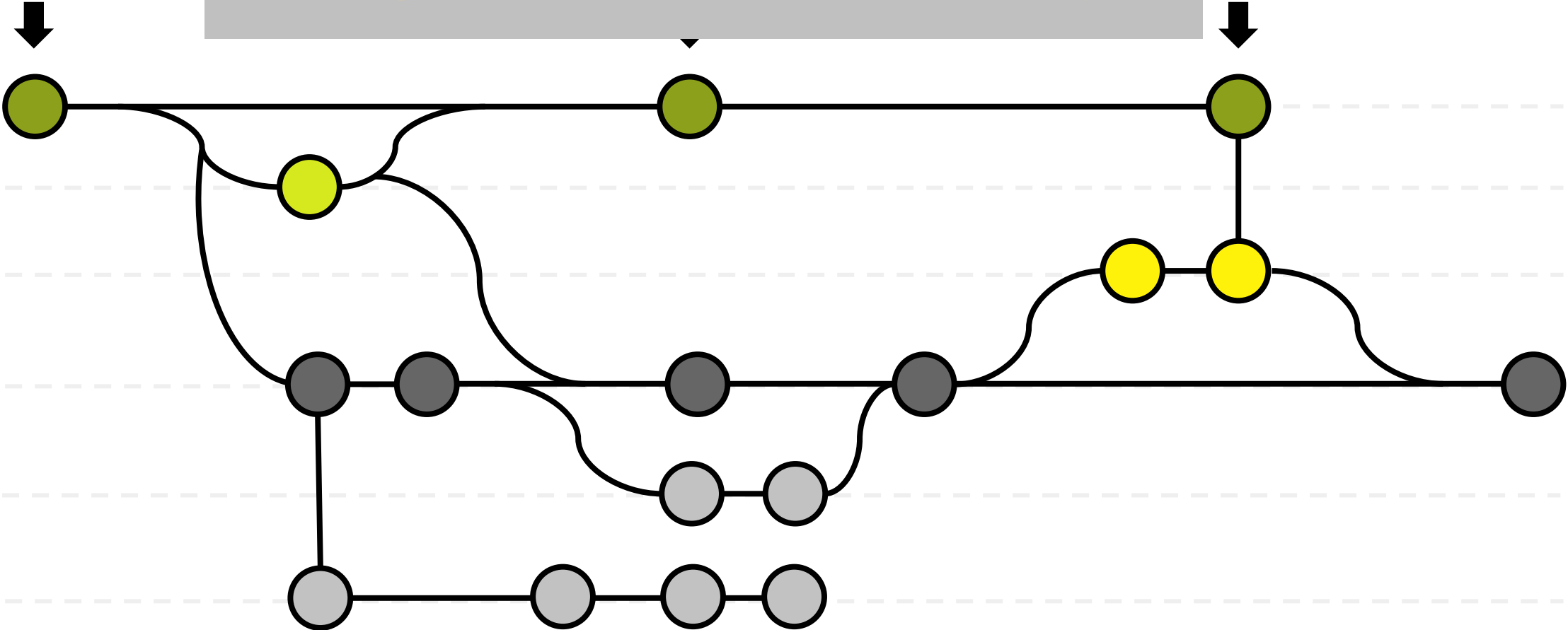
Feature

Feature

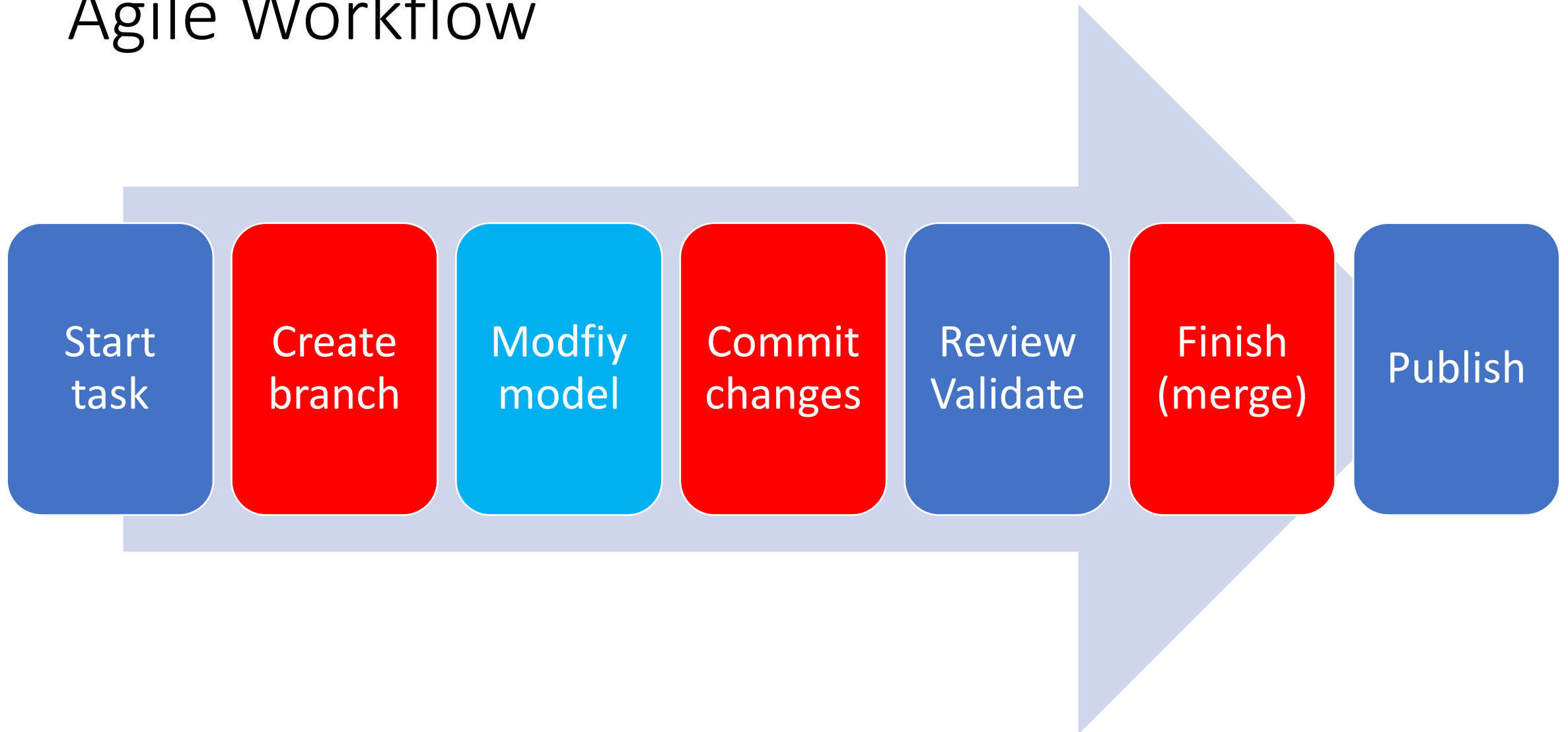
V1.1

VCS CHALLENGE

V1.2



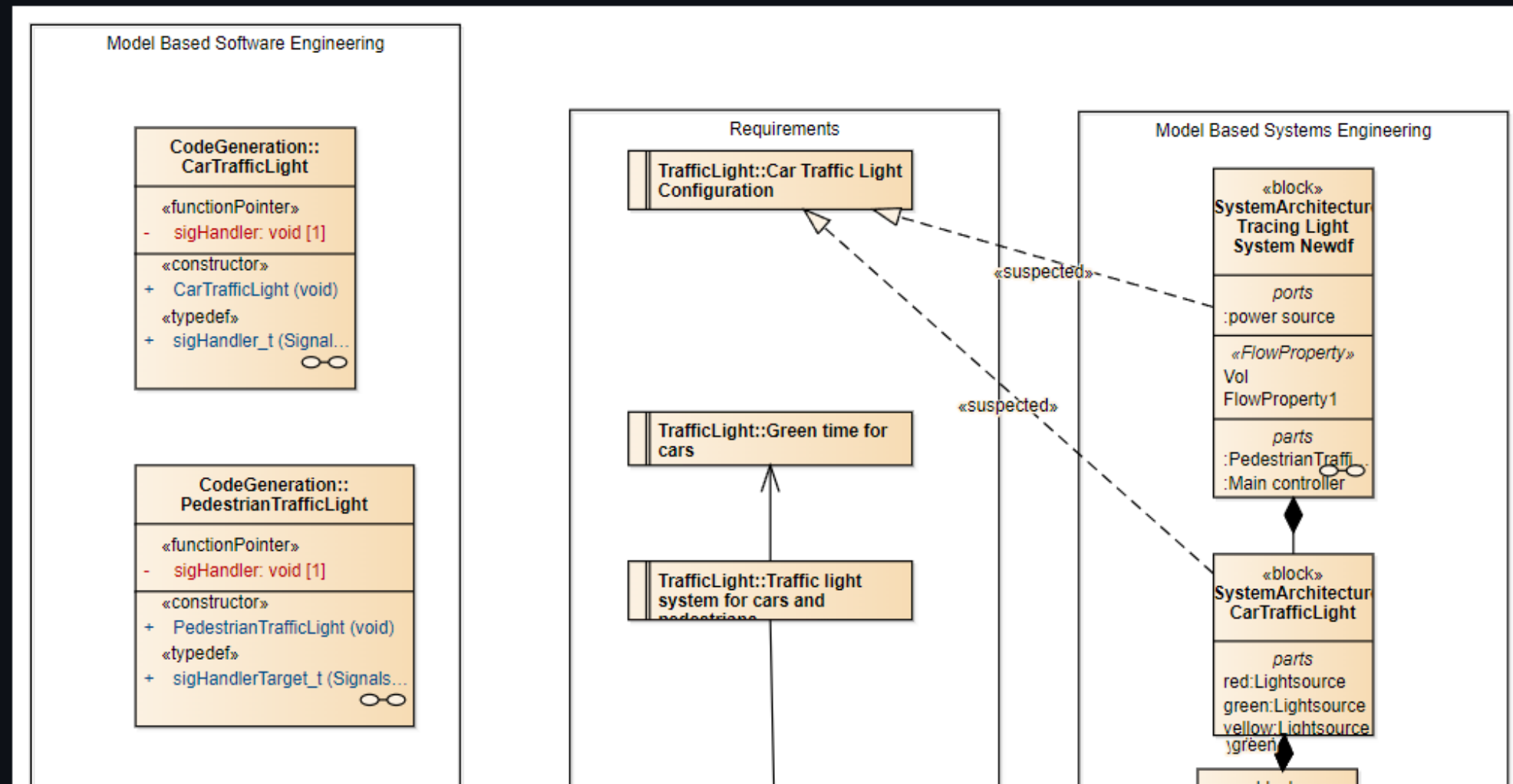
Agile Workflow





Review Changes with LemonTree: [Desktop](#) / [Web](#)

Install [LemonTree 3.3+](#) to open the Review Session file.



Case: OSLC based integration with Branches

- Sounds desirable?
- very complex – multi vendor challenge
- No branching concept – Agile?
- Single Vendor Environment with something like Global Config Management can work

Case: Model Transformation

- The branched models are consolidated in a model warehouse
- Only the Transformed Model (optimized for the traceability use case) is traced
- Complex process – but it works
- Testing, Auditing a challenge

Case: Integration Platform

- Multi Tool Support
- 3C Analysis - Completeness, Correctness, Consistency across tools
- Need to develop adapters
- Based on graph database
- Supports feature Branching
- Enterprise Class Solution
- Traceability in a Traceability UI

Case: docs as code

- Lack of Branching in off the shelf ALM tools
- Git style workflows a must
- Requirements and Traceability are maintained in Text Files
- Properly only for a limited audience.

Findings

- ALM tools are not very good in Branching/Merging
- Some customers are going all in git
- Some customers go model Transformation to solve it
- Make sure your integration can support a 2023 Workflow
- Pure central solutions can be tough with a Feature Branch Process

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Some of our global Customers....



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