

# EXPERIENCE WITH USING METRICS FOR ASPICE LEVEL 2

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Metrics including dashboards needed when working in VW SQL settings.

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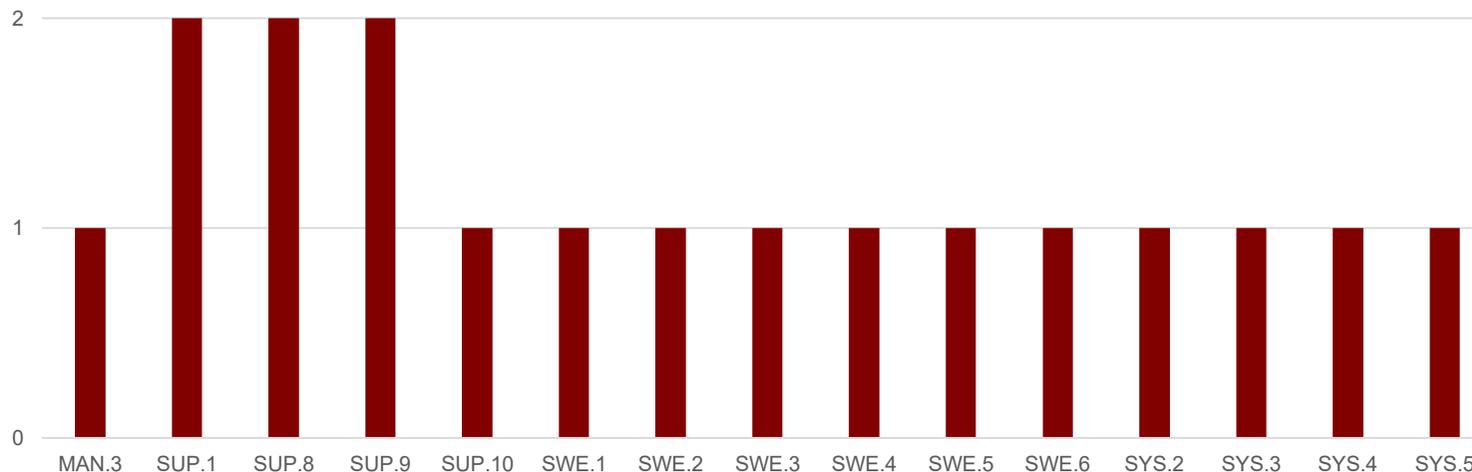
**ISCN**  
Group

 **SCOVECO**

# Motivation

- **Need to check and improve systems development**

Initial assessment CapAdviser → Report and Benchmarking tool (using data from CapAdviser) → Set up Improvement project – Monitor



# ASPICE Level 2 – PA 2.1. Performance management

Identify objectives – plan – **monitor** – adjust....

- **GP 2.1.3 Monitor the performance of the process against the plans.**

**The process is performed according to the plan(s).**

**Process performance is monitored to ensure planned results are achieved and to identify possible deviations**

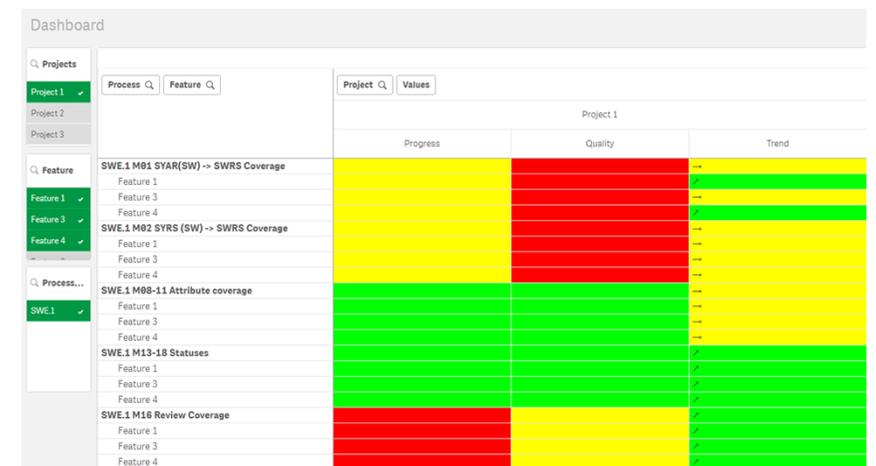
# Metrics Implementation – Issues Arises

- Select appropriate ones
- Who would use what metric
- . . .

ID	Possible metrics (what can be measured)
SWE.1_M01	Number of system architecture requirements assigned to software and linked to software requirements / Number of all system architecture requirements assigned to software.
SWE.1_M02	Number of system requirements assigned to Software and linked to software requirements / Number of all system requirements assigned to software.
SWE.1_M03	Number of customer requirements assigned to software and linked to software requirements / Number of all customer requirements assigned to software.
SWE.1_M04	Number of system architecture requirements assigned to software and agreed by software / Number of all system architecture requirements assigned to software.
SWE.1_M05	Number of system requirements assigned to software and agreed by software / Number of all system architecture requirements assigned to software.
SWE.1_M06	Number of customer requirements assigned to software and agreed by software / Number of all system architecture requirements assigned to software.
SWE.1_M07	Number of software requirements linked to system requirements, system architecture, marked as internal requirement or customer requirements / Number of software requirements
SWE.1_M08	Number of software requirements with filled out attribute XY / Number of all software requirements
SWE.1_M09	Number of software requirements with the functional safety relevance set / Number of all software requirements
SWE.1_M10	Number of software requirements with verification criteria defined / Number of all software requirements
SWE.1_M11	Number of software requirements with release (phase) assignment / Number of all software requirements
SWE.1_M12	Number of software requirements with assigned test level / Number of all software requirements
SWE.1_M13	Number of software requirements with a status set to in work / Number of all software requirements
SWE.1_M14	Number of software requirements with a status set to changed / Number of all software requirements
SWE.1_M15	Number of software requirements with a status set to be reviewed / Number of all software requirements
SWE.1_M16	Number of software requirements with a status set to reviewed / Number of all software requirements
SWE.1_M17	Number of software requirements with a status set to implemented / Number of all software requirements
SWE.1_M18	Number of software requirements with a status set to (positively) tested / Number of all software requirements
SWE.1_M19	Number of software requirements aligned with all relevant parties / Number of all software requirements
SWE.1_M20	Number of software requirements with a status set to delivered / Number of all software requirements
SWE.1_M21	Number of functional/non-functional/process software requirements / Number of all software requirements

# Where and How to Implement Metrics?

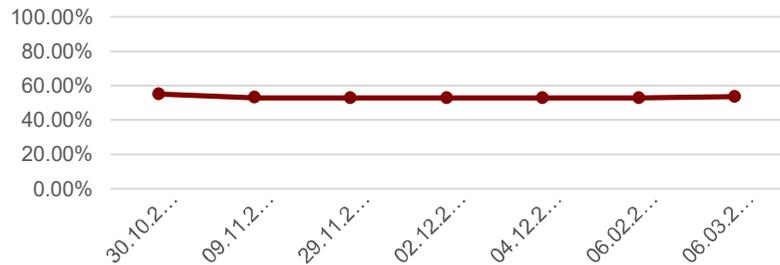
SWE.1 SOFTWARE REQUIREMENTS ANALYSIS						
47	Traceability	Coverage	M02	<a href="#">SYRS (SW) -&gt; SWRS Coverage</a>	53,68%	↗
48	Traceability	Coverage	M01	<a href="#">SYAR (SW) -&gt; SWRS Coverage</a>	23,91%	↗
50	Quality	Coverage	M16	<a href="#">Review Coverage</a>	8,05%	↘
51	PM	Number	M13-18	<a href="#">Statuses</a>	115 / 0 / 210 / 0 / 0 / 0	█ █
52					0,00%	→
53					100,00%	→
54	PM	Coverage	M08-11	<a href="#">Attribute coverage</a>	100,00%	→
55					100,00%	→
56					100,00%	→



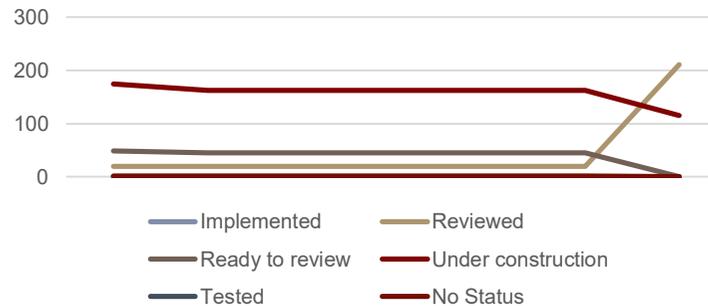
# Solution 1 – Excel tool

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55					100,00%	→	
56					100,00%	→	

SYRS (SW) -> SWRS Coverage

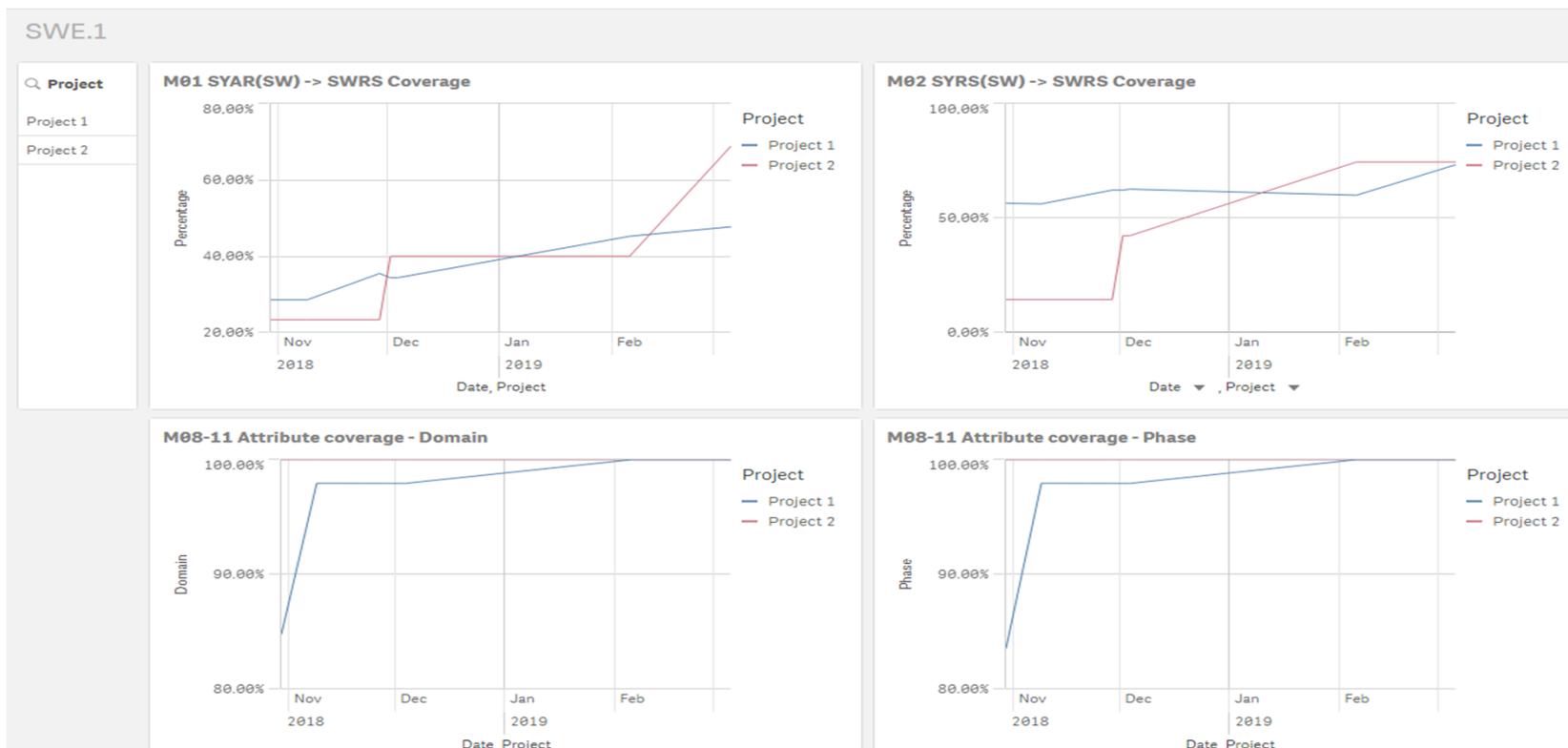


Statuses



# Solution 2 – Own Metric Software

- Motto: user friendly, adjustable views



# Solution 3 - Usage of Business Intelligence Tool

- Motto: centralize and use data in effective way - BI platform solution

Dashboard

Q Projects

Project 1 ✓  
Project 2  
Project 3

Q Feature

Feature 1 ✓  
Feature 3 ✓  
Feature 4 ✓

Q Process...

SWE.1 ✓

		Process Q	Feature Q	Project Q	Values
Project 1					
		Progress	Quality	Trend	
<b>SWE.1 M01 SYAR(SW) -&gt; SWRS Coverage</b>				→	
Feature 1				→	
Feature 3				→	
Feature 4				→	
<b>SWE.1 M02 SYRS (SW) -&gt; SWRS Coverage</b>				→	
Feature 1				→	
Feature 3				→	
Feature 4				→	
<b>SWE.1 M08-11 Attribute coverage</b>				→	
Feature 1				→	
Feature 3				→	
Feature 4				→	
<b>SWE.1 M13-18 Statuses</b>				→	
Feature 1				→	
Feature 3				→	
Feature 4				→	
<b>SWE.1 M16 Review Coverage</b>				→	
Feature 1				→	
Feature 3				→	
Feature 4				→	

# Combined Data Usage Examples Using BI Tool

## **Use case 1: Combine effort and requirements**

- Effort stored in each task; tasks associated to requirements
- What is the influence of adding tasks to the project?
- How it will influence resources?

## **Use case 2: Improvement of review quality**

- Issues found during system test, acceptance test...

Which reviews should be improved to avoid this?

What was the situation when this requirement was implemented?

# Conclusion and Offer

- **Complete metrics solutions**

**From simple to complex solutions**

- **What can we offer**
  - Selection and adjustments of what to monitor
    - Goals for processes, appropriate company adjusted metrics
  - Integration into the company processes
  - Integration of solutions – from simple to platform-based business intelligence
  - Maintenance and support service
  - Continuous improvement

**Thank you for your attention**