# Potential Analysis PAM Short Overview

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# Building a Community of Knowledge

*System, Software, Service, Safety, Security Process, Product Improvement, Innovation and Infrastructure

https://www.eurospi.net

https://soqrates.eurospi.net

https://academy.eurospi.net

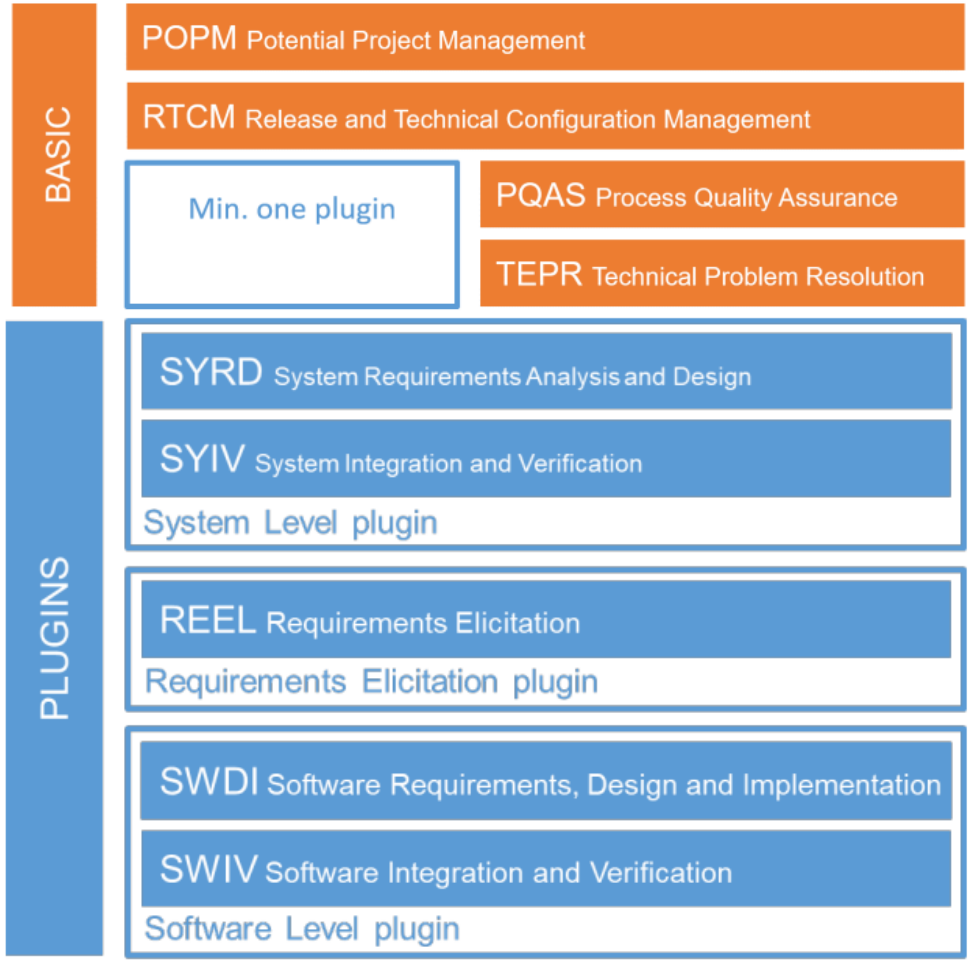
–Conference and book series since 1994.
–Working part of leading suppliers and experts since 2003.
–Online Campus with ECQA since 2008 and own academy
–portals since 2020.

# Motivation

- Various approaches by OEMs to „assess“ the Potential of a Supplier developing a product with SW before nomination
- Questionnaires or Models not available; difficult to prepare
- Results only relevant for the OEM doing the analysis

→ Automotive SPICE Potential Analysis should unify this approach

# Structure and Content





- Own processes
- BASIC + min one Plugin
- Optional/Flex Processes

Source: Automotive SPICE® Potential Analysis, 1st edition, June 2024

# Characteristics

- Analysis can be performed on an exemplary project / golden sample
- Comparable results as same framework is used
- Focuses more on engineering topics than organizational aspects
- Reduced effort/time compared to an assessment → less time consuming
- Result valid only limited time
- Focuses on Level 1 practices
- Own rating schema
- Results shall not be mixed with Automotive SPICE results
- Terminology/structure based on ASPICE 4.0
- Horizontal traceability in scope
- Includes also Cybersecurity processes

# Rationales

Provide justifications for differences between Automotive SPICE 4.0 and Potential Analysis:

- Rationales of generic character (RAG.X) reflecting specific circumstances for all processes.
- Rationales of process specific character (RAP.X), which affect one or a few processes only.

Rationale RAG.1 "***Resources***" of human capital and personnel in a project are not in the scope of the ASPICE PoA because the premise of the inspected projects will likely differ from those for the final customer. The evaluation of the estimation approach therefore concentrates on effort

Source: Automotive SPICE® Potential Analysis, 1st edition, June 2024

# Example - System Requirements and Design

**Base Practices**

**SYRD.BP1: Specify, analyze, structure and prioritize system requirements.**
Specify, analyze and structure functional and non-functional system requirements according to defined characteristics for requirements. Prioritize system requirements according to project schedule.

*Note 1: System requirements can be structured, e.g., by categorizing, grouping, sorting, and prioritizing according to the project context.*

*Note 2: For changes to the stakeholder's requirements Technical Change Request Management (TCRM) may apply.*

*Note 3: The analysis of impact on effort and schedule supports the adjustment of project estimates. Refer to Potential Project Management (POPM).*

**SYRD.BP2: Specify and analyze system architectural design.** Specify and analyze the system architecture including system elements and their interfaces. Specify static and dynamic views of system elements.

Source: Automotive SPICE® Potential Analysis, 1st edition, June 2024

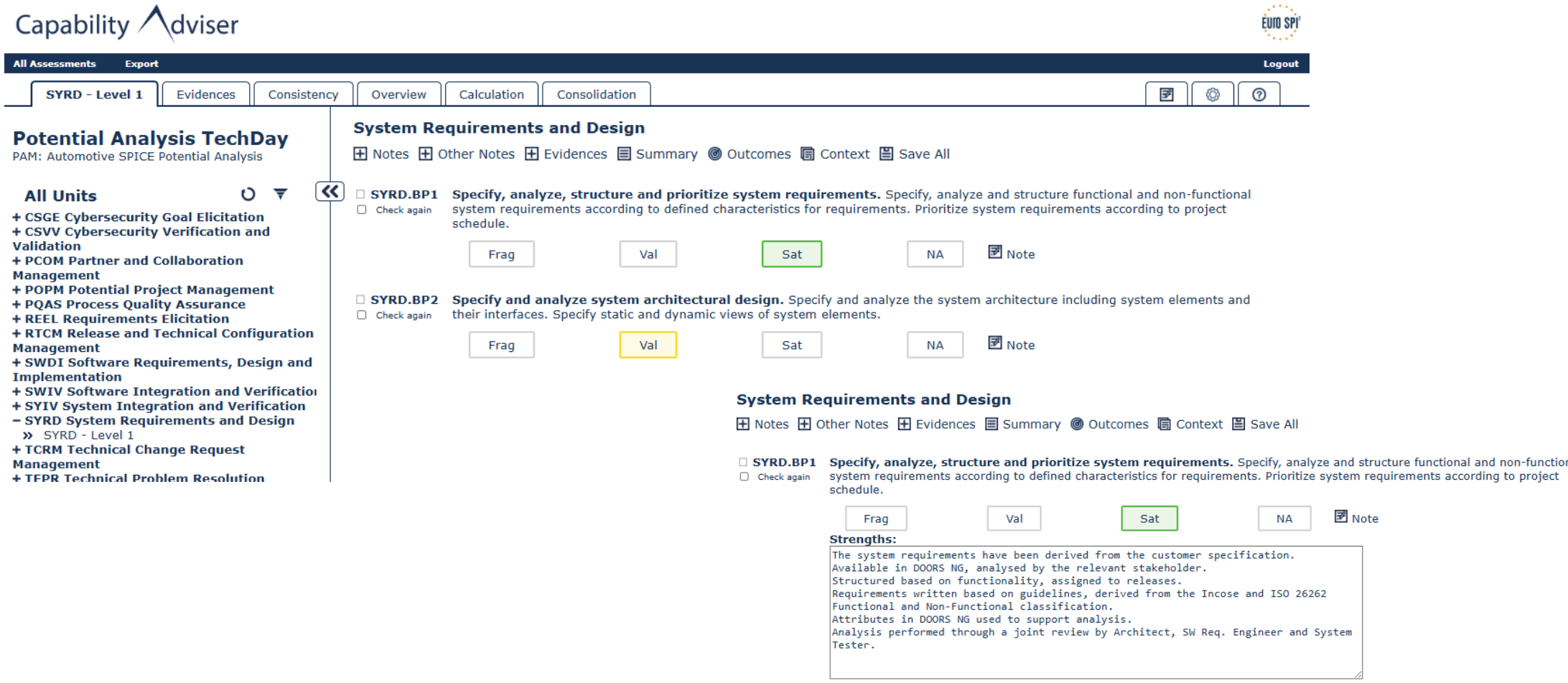
# Rating Scale

- Traffic lights approach used (Red, Yellow, Green)
- No 1:1 mapping to Automotive SPICE rating

| Rating color | Rating | % of achievement | Characteristic judgement for degree of achievement |
|---|---|---|---|
| Red | Fragmentary | 0 to ≤ 50% | There is little or no evidence of achievement of the process performance process attribute in the assessed process. |
| Yellow | Valid | > 50% to ≤ 75% | There is evidence of a significant achievement of the process performance process attribute. Some weaknesses may exist, but they do not interfere with a valid systematic approach in the assessed process |
| Green | Satisfactory | > 75% to ≤ 100% | There is evidence of a satisfactory achievement of the process performance process attribute. There are no or only minor weaknesses without impact of achieving the purpose of the assessed process. |

Source: Automotive SPICE® Potential Analysis, 1st edition, June 2024

# Implementation in the Capability Adviser



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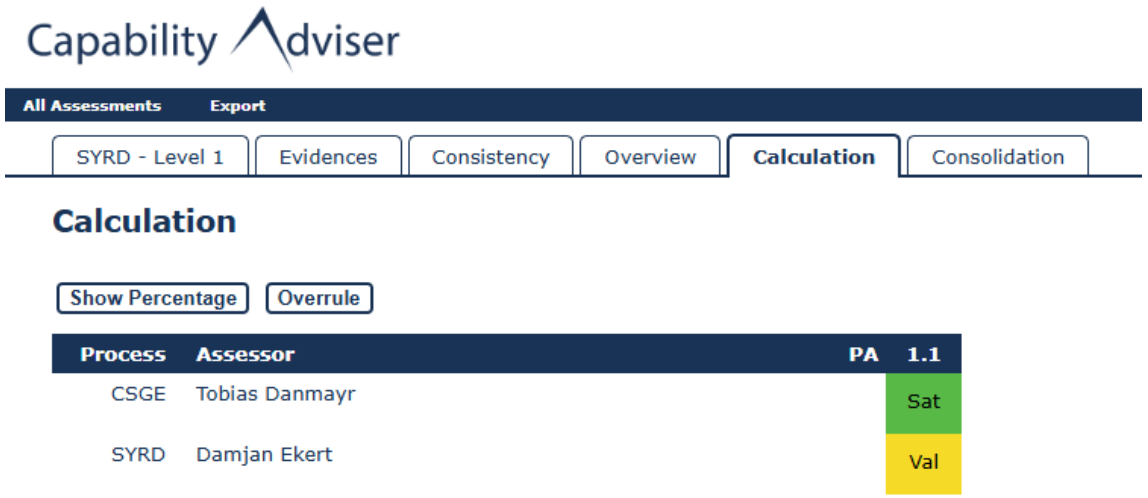


SYRD - System Requirements and Design

SYRD Level 1

Summary

| Val | PA 1: Process Performance Process Attribute |
|---|---|

Ratings

| Sat | SYRD.BP1<br>Specify, analyze, structure and prioritize system requirements. |
|---|---|

**Strengths:**

- The system requirements have been derived from the customer specification.
- Available in DOORS NG, analysed by the relevant stakeholder.
- Structured based on functionality, assigned to releases.
- Requirements written based on guidelines, derived from the Incose and ISO 26262
- Functional and Non-Functional classification.
- Attributes in DOORS NG used to support analysis.
- Analysis performed through a joint review by Architect, SW Req. Engineer and System Tester.

| Val | SYRD.BP2<br>Specify and analyze system architectural design. |
|---|---|

**Strengths:**

- The System Architecture is documented in Rhapsody. Interfaces between Hardware and Software analysed and documented in a seperate DOORS module (HSI)
- Interfaces specified.

**Weaknesses:**

- Dynamic behaviour of the system not yet specified.

# Thank you for cooperating with SOQRATES Group Cybersecurity JRCo.

German and Austrian task force SOQRATES (www.soqrates.de) since 2003 where >20 Tier 1 collaborate on ASPICE, Safety and Security.

ISCN organises the EuroSPI conference since 1994 where e.g. VW is organising a workshop community, and VW, Rheinmetall AG, EB, MAGNA, AVL held key notes. http://www.eurospi.net

ECQA (European Certification and Qualification Association) certified training body for cybersecurity.