# How can AI help support the assessment process

Presentation at the EuroSPI Tech Day, 2026, 3. 9. 2026

Presented by: Damjan Ekert, ISCN

EUROSPI² Academy

# Acknowledgement


- Damjan Ekert, ISCN GmbH, Austria
- Mary Roselind Michael, HELLA GmbH & Co. KGaA, Germany
- Peter Theis, Magna Powertrain GmbH & CO KG, Austria
- Valeria Franzitta, Bosch Engineering GmbH, Germany
- Svatopluk Stolfa, VŠB – Technical University of Ostrava, Czech Republic
- Thomas Wegner, ZF Friedrichshafen AG, Germany
- Alexander Feulner, Process Fellows GmbH, Germany
- Elena-Flavia Povirnaru, Cariad SE, Germany
- Alexander Much, Safionyx GmbH & Co KG, Germany
- Andreas Gasch, Cariad SE, Germany
- Ralf Mayer, Bosch Engineering GmbH, Germany
- Sascha Glasbrenner, ETAS, Germany
- Dr. Richard Messnarz, ISCN GmbH, Austria

**AND THE SOQRATES Automotive SPICE® Working Group**

EURO SPI² Academy

# AI is everywhere….

Generative AI and large language models (LLMs) have moved from everyday convenience into software and engineering work.

## DAILY LIFE

**Search & Q&A**
information discovery

**Writing & translation**
emails • rewriting • language

**Summaries**
documents • meetings • media

**Recommendations**
content • shopping • travel

**Personal assistants**
planning • reminders • support

## SYSTEM/SOFTWARE ENGINEERING

**Requirements**
creating • refining • reviewing

**Coding**
generation • review • documentation

**Project & process support**
planning • risk • issue analysis

**Generative AI & LLM copilots**

**Testing**
test design • coverage • analysis

**Documentation & knowledge**
search • summaries • knowledge base

**…**

EUROSPI² Academy

# Motivation

- Can AI support assessors in assessments?
- Typical assessment phases:


- Analyze where effort can be reduced and AI can support
- Perform practical experiments with prompts and company AI environments
- Disclaimer: Due to the rapid changes in AI/LLM developments, the results of our study could already be outdated or would need to be re-evaluated.

EUROSPI² Academy

# Assessment Schedule

- Often considerable effort to align with the availability of interview partners, different timezones, project constrains impacting the duration of interviews, instances etc.
- Multiple attempts to create the correct prompt
- **Lessons Learned:**
  - Set the duration of interviews for process groups (e.g. 2,5h for SUP.1 and SUP.8)
  - Set the sequence of the interviews
  - Define clearly the content of each column (e.g. Column A: process, Column B: start time)
  - Limit the maximum hours per day (e.g. 10 hours per day for interviews, lunch and breaks)
  - Ensure that there are no time gaps between breaks, lunch and processes
  - Ensure that breaks are not scheduled before lunch and only one lunch per day is scheduled
  - Ensure that public holidays are considered
  - Allow process splitting around lunch (e.g. MAN.3 4h → part 1, lunch, part 2)
  - Indicate when breaks are required (e.g. after each process interview)
- No real reduction of effort and time →for multi-time-zone and availability constraints, prompt adjustment took considerably more time than manual template adjustment

EURO SPI² Academy

# Assessment Schedule - Prompt

Prepare an Agenda for an Automotive SPICE assessment, from Monday to Friday according to the VDA scope of Automotive Processes (MAN.3, SUP.1, SUP.8, SUP.9, SUP.10, SYS.2, SYS.3, SYS.4, SYS.5, SWE.1, SWE.2, SWE.3, SWE.4, SWE.5 and SWE.6), Start on Monday with a project kick-off session for 30 minutes and then proceed with interviews for MAN.3, SUP.1 and SUP.8 then the processes according to the V - Modell SYS.2, SYS.3, SWE.1, SWE.2, SWE.3, SWE.4, SWE.5, SWE.6 SYS.4, SYS.5, and finishing with SUP.9 and SUP.10.
Use the Automotive SPICE PAM located at: as an input for the process names https://vda-qmc.de/wp-content/uploads/2023/12/Automotive-SPICE-PAM-v40.pdf
Start each day at 8:00, plan each day a lunch break between 11:30 and 13:30 for one hour, plan between processes a 30min break. Each process should be interviewed for 2h, except MAN.3 for 4h, SUP.1 and SUP.8 for 2,5 hours and SWE.5 and SYS.4 for 2,5 hours. At the end of each day there should be a consolidation session for 1 hour. Do an even distribution, plan a maximum of 10 hours per day. Generate an excel file directly for download. The excel file should have the following columns:
A: process (abbreviation and name e.g. MAN.3 Project Management)
B: start time
C: end time
D: duration (end time – start time)
D: Location (leave empty)
F: Interview partners (leave empty)

Indicate in the agenda also lunch breaks (colour the relevant cells light yellow) and breaks (colour the relevant cells light blue).
Consider:
No time gaps between breaks, lunch, and processes
Max 10 working hours per day (interviews + lunch + breaks)
Dont schedule a break before a lunch break! Only one lunch break per day!
After the project kick off session a break is not needed.

**Automotive SPICE Assessment Agenda (VDA Scope)**

| Process | Start time | End time | Duration | Location | Interview partners |
|---|---|---|---|---|---|
| **Monday** | | | | | |
| Project Kick-off | 08:00 | 08:30 | 0:30 | | |
| MAN.3 Project Management | 08:30 | 12:30 | 4:00 | | |
| *Lunch break* | *12:30* | *13:30* | *1:00* | | |
| SUP.1 Quality Assurance | 13:30 | 16:00 | 2:30 | | |
| *Break* | *16:00* | *16:30* | *0:30* | | |
| SUP.8 Configuration Management – Part 1/2 | 16:30 | 17:00 | 0:30 | | |
| **Daily consolidation** | **17:00** | **18:00** | **1:00** | | |
| **Tuesday** | | | | | |
| SUP.8 Configuration Management – Part 2/2 | 08:00 | 10:00 | 2:00 | | |
| *Break* | *10:00* | *10:30* | *0:30* | | |
| SYS.2 System Requirements Analysis | 10:30 | 12:30 | 2:00 | | |
| *Lunch break* | *12:30* | *13:30* | *1:00* | | |
| SYS.3 System Architectural Design | 13:30 | 15:30 | 2:00 | | |
| *Break* | *15:30* | *16:00* | *0:30* | | |
| SWE.1 Software Requirements Analysis – Part 1/2 | 16:00 | 16:30 | 0:30 | | |
| **Daily consolidation** | **16:30** | **17:30** | **1:00** | | |
| **Wednesday** | | | | | |
| SWE.1 Software Requirements Analysis – Part 2/2 | 08:00 | 09:30 | 1:30 | | |
| *Break* | *09:30* | *10:00* | *0:30* | | |
| SWE.2 Software Architectural Design | 10:00 | 12:00 | 2:00 | | |
| *Lunch break* | *12:00* | *13:00* | *1:00* | | |
| SWE.3 Software Detailed Design and Unit Construction | 13:00 | 15:00 | 2:00 | | |
| *Break* | *15:00* | *15:30* | *0:30* | | |
| SWE.4 Software Unit Verification – Part 1/2 | 15:30 | 16:30 | 1:00 | | |
| **Daily consolidation** | **16:30** | **17:30** | **1:00** | | |
| **Thursday** | | | | | |
| SWE.4 Software Unit Verification – Part 2/2 | 08:00 | 09:00 | 1:00 | | |
| *Break* | *09:00* | *09:30* | *0:30* | | |
| SWE.5 Software Component Verification and Integration Verification | 09:30 | 12:00 | 2:30 | | |
| *Lunch break* | *12:00* | *13:00* | *1:00* | | |
| SWE.6 Software Verification | 13:00 | 15:00 | 2:00 | | |
| *Break* | *15:00* | *15:30* | *0:30* | | |
| SYS.4 System Integration and Integration Verification – Part 1/2 | 15:30 | 17:00 | 1:30 | | |
| **Daily consolidation** | **17:00** | **18:00** | **1:00** | | |
| **Friday** | | | | | |
| SYS.4 System Integration and Integration Verification – Part 2/2 | 08:00 | 09:00 | 1:00 | | |
| *Break* | *09:00* | *09:30* | *0:30* | | |
| SYS.5 System Verification | 09:30 | 11:30 | 2:00 | | |
| *Lunch break* | *11:30* | *12:30* | *1:00* | | |
| SUP.9 Problem Resolution Management | 12:30 | 14:30 | 2:00 | | |
| *Break* | *14:30* | *15:00* | *0:30* | | |
| SUP.10 Change Request Management | 15:00 | 17:00 | 2:00 | | |
| **Daily consolidation** | **17:00** | **18:00** | **1:00** | | |

EUROSPI² Academy

# Prepare project teams for an assessment

- LLMs generated assessment-style questions for Automotive SPICE® practices
- The output hints what the assessor focuses on, what to pay attention, typical evidences and typical weaknesses.
- This helps project teams understand evidence expectations and identify gaps earlier.
- Can mislead the team to only focus on the preparation
- See example for SYS.2

**What the Assessor Focuses On**

The assessor primarily verifies whether:

- system requirements are **derived from stakeholder requirements**
- requirements follow **defined requirement quality criteria**
- requirements are **clearly formulated and verifiable**
- requirements are **not simple copies of stakeholder requirements**

The assessor will check whether the project uses **defined rules for writing requirements**, often derived from:

- ISO/IEC/IEEE 29148
- INCOSE requirement writing rules

internal requirement guideline

# Prepare project teams for an assessment

**Check for**

requirements that contain **design solutions instead of system behavior**

vague wording such as “the system should support”

requirements without **verification criteria**

requirements copied directly from OEM specifications without refinement

Verify whether non-functional requirements are systematically captured, such as:

- timing requirements
- performance requirements
- diagnostic requirements
- safety constraints
- cybersecurity constraints

**Typical Weaknesses**

Common findings include:

- stakeholder requirements copied directly as system requirements
- missing non-functional requirements
- ambiguous wording
- requirements containing design decisions

**Typical Evidence**

Typical evidence includes:

- system requirements specification
- requirements stored in requirements management tool
- requirement attributes
- requirement review records
- requirement baselines

EUROSPI² Academy

# Generated Automotive SPICE SYS.2 Cookbook

## Automotive SPICE SYS.2 – Complete Technical Cookbook

**SYS.2 Process Purpose**

SYS.2 ensures that **system requirements are derived from stakeholder requirements, analyzed, structured and communicated so that system architecture and software development can be performed correctly.**

The process transforms:

Stakeholder Needs

↓

System Requirements

↓

System Architecture

↓

Software Requirements

System requirements must satisfy characteristics defined in:

- ISO/IEC/IEEE 29148
- ISO 26262
- INCOSE Guide for Writing Requirements

Key characteristics:

- Correct
- Unambiguous
- Verifiable
- Consistent
- Traceable

**Requirement Attribute Model (Typical Automotive Setup)**

A mature SYS.2 process uses a defined **requirement attribute model.**

| Attribute | Description | Example |
|---|---|---|
| Requirement ID | Unique identifier | SYS-REQ-LKA-012 |
| Requirement Type | Functional / Interface / Performance | Functional |
| Subsystem | System component | ADAS |
| Feature | Feature group | Lane Assist |
| ASIL | Safety classification | ASIL B |
| Interface Impact | Interface affected | TRUE |
| Communication Bus | Bus type | CAN |
| Affected ECU | ECU name | Steering ECU |
| Verification Method | Verification type | System Test |
| Priority | Importance | High |
| Variant | Product variant | Platform A |

These attributes allow:

- impact analysis
- variant filtering
- traceability analysis
- coverage reporting

# Generated Automotive SPICE SYS.2 Cookbook

**What Assessor Checks**

Assessor verifies:

- system requirements are **derived**
- requirements follow **quality criteria**
- non-functional requirements exist
- verification criteria defined

---

**Human Readable Requirement Example**

**Stakeholder Requirement**

ID: STKH-REQ-245

Text:

The vehicle shall warn the driver when unintended lane departure occurs.

Attributes:

| Attribute | Value |
|---|---|
| Requirement Type | Stakeholder |
| Feature | Lane Assist |
| ASIL | ASIL B |

---

**Derived System Requirement**

ID: SYS-REQ-LKA-012

Text:

The system shall generate a visual warning and acoustic signal within **300 ms** when lane departure is detected without turn signal activation.

Attributes:

| Attribute | Value |
|---|---|
| Requirement Type | Functional |
| Subsystem | ADAS |
| ASIL | ASIL B |
| Verification Method | System Test |
| Interface Impact | TRUE |

---

**ReqIF Representation**

```
<SPEC-OBJECT IDENTIFIER="SYS-REQ-LKA-012">

 <ATTRIBUTE-VALUE-STRING ATTRIBUTE-DEFINITION="RequirementText">
  The system shall generate a visual warning and acoustic signal within 300 ms when lane departure is detected without turn signal activation.
 </ATTRIBUTE-VALUE-STRING>

 <ATTRIBUTE-VALUE-ENUMERATION ATTRIBUTE-DEFINITION="RequirementType">
  Functional
 </ATTRIBUTE-VALUE-ENUMERATION>

 <ATTRIBUTE-VALUE-ENUMERATION ATTRIBUTE-DEFINITION="ASIL">
  ASIL-B
 </ATTRIBUTE-VALUE-ENUMERATION>

</SPEC-OBJECT>
```

EURO SPI² Academy

# Generated Automotive SPICE SYS.2 Cookbook

| ID | BP | Question Name | Trap Question | What Assessor Checks | Example Strong Answer | Evidence | Weak Answer / Red Flag |
|---|---|---|---|---|---|---|---|
| 1 | SYS.2.BP1 | Derivation from stakeholder requirements | How do you derive system requirements from stakeholder requirements? | Requirements originate from stakeholder requirements | "Stakeholder requirements from the OEM specification (SYS-SPEC v3.2) are imported into Polarion. For example STK-REQ-118 results in system requirement SYS-REQ-067 describing CAN routing functionality." | Traceability STK-REQ-118 → SYS-REQ-067 | "We write requirements directly." |
| 2 | SYS.2.BP1 | Identification of system functions | How do you identify the functional system requirements? | Functional system requirements are identified from stakeholder needs | "From STK-REQ-118 we derived SYS-REQ-067 specifying the CAN routing function implemented by the gateway ECU." | System requirement SYS-REQ-067 | No link to stakeholder requirement |
| 3 | SYS.2.BP1 | Identification of non-functional requirements | How do you derive non-functional requirements? | Non-functional requirements identified | "Performance requirements such as message latency originate from SYS-SPEC section 4.5. For example SYS-REQ-045 specifies that CAN messages must be processed within 5 ms." | System requirement SYS-REQ-045 | NFRs not identified |
| 4 | SYS.2.BP1 | Requirement documentation | Where are system requirements documented? | Requirements are documented in a controlled repository | "All system requirements are stored in the Polarion System Requirement module." | Polarion module | Requirements stored in Word |
| 5 | SYS.2.BP1 | Requirement characteristics | What characteristics must system requirements fulfill? | Knowledge of requirement quality | "Requirements must be atomic, verifiable, unambiguous, and implementation-independent according to our Requirement Writing Guideline based on ISO/IEC/IEEE 29148." | Requirement guideline | Engineer does not know requirement quality criteria |
| 6 | SYS.2.BP1 | Verifiability | How do you ensure system requirements are verifiable? | Requirements include measurable criteria | "Each system requirement includes a verification method. For example SYS-REQ-045 specifies 5 ms latency and is verified through system integration testing." | Verification attribute | Requirement cannot be tested |
| 7 | SYS.2.BP1 | Unambiguity | How do you avoid ambiguous requirements? | Requirement wording is precise | "We avoid terms like 'fast'. Instead we specify measurable limits such as 5 ms processing time." | Requirement update history | Requirements contain vague language |
| 8 | SYS.2.BP1 | Independence from design | How do you ensure requirements do not contain design decisions? | Requirements describe WHAT not HOW | "For example SYS-REQ-067 specifies message routing but does not describe the internal algorithm used by the software." | Requirement description | Requirement contains design implementation |

EUROSPI² Academy

# Audio Recording and Transcription

- AI meeting tools could record, transcribe and summarize interviews—potentially reducing note-taking effort.
- Mature tools available (Fireflies.ai, Read AI) with very good results
- GDPR, NDA obligations, organizational rules and assessor guidelines require explicit approval and control.

**Adoption barriers**

- **Legal**
- **Ethical**
- **Methodological**
- **Maturity of local tools**

EUROSPI² Academy

# Position from INTACS

## Use of Audio/Video Recording and Transcription

The recording or transcription of assessment interviews introduces significant methodical, legal, cultural, and ethical risks.

Therefore, INTACS states:

- Audio and/or video recordings of assessment interviews are not permitted by default.
- Automated transcription of interviews is not permitted by default.
- Any deviation from this principle requires explicit, informed consent of all parties involved prior to the assessment, and must comply with applicable legal and data protection requirements.
- The protection of interviewees, assessors, and the assessment method from misuse or misinterpretation is a primary concern.

Source: iNTACS AI Principles, v1.0, released: 2026-07-07

EuroSPI Academy

# EuroSPI Conference 8-10.9.2026

More cases will be presented at the EuroSPI Conference on the 8.9.2026 in the Norms and Standards Workshop!

Workshop Program 08.09.2026

| Workshop: Standards and Assessment Models | | |
|---|---|---|
| 08.40 - 09.15 Local Time<br>07.40 - 08.15 CET Time | Opening by Nile University, by Vice rector<br>EuroSPI Chair, Dr Richard Messnarz,<br>Automotive Skills Alliance, Dr Jakub Stolfa, ASA Director,<br>iNTACS, Stephan Müller, INTACS Director, | |
| 09.30 - 10.30 Local Time<br>08.30 - 09.30 CET Time | **How can AI enhance the development process in the automotive domain?**<br>Schlager Christian, Kurz-Griessnig Brigitte, Magna Powertrain, Austria | **How can AI help support the assessment process**<br>Damjan Ekert, ISCN GmbH, Austria, Mary Roselind Michael, HELLA GmbH & Co. KGaA, Germany, Peter Theis, Magna Powertrain GmbH & CO KG, Austria, Valeria Franzitta, Bosch Engineering GmbH, Germany, Svatopluk Stolfa, VSB – Technical University of Ostrava, Czech Republic, Thomas Wegner, ZF Friedrichshafen AG, Germany, Alexander Feulner, Process Fellows GmbH, Germany, Elena-Flavia Povirnaru, Cariad SE, Germany, Alexander Much, Safionyx GmbH & Co KG, Germany, Andreas Gasch, Cariad SE, Germany |
| 10.30 - 11.00 Local Time<br>09.30 - 10.00 CET Time | Coffee Break | |
| 11.00 - 12.00 Local Time<br>10.00 - 11.00 CET Time | **Expert Review of a Process Assessment Model for AI-enabled Healthcare Software**<br>Gilbert Regan, Buddhika Gayashani, Fergal Mc Caffery, Regulated Software Research Centre, Dundalk Institute of Technology, Dundalk, Ireland | **Crossing Industry Boundaries from Automotive to Medical Devices Software: A Case Study Addressing ISO/IEC 62304 Limitations Using Automotive SPICE Practices**<br>Noha Moselhy, Dina ElHakim, DXC Luxoft, Egypt, and Yosry Mohsen, SEITech Solutions GmbH, Germany |
| 12.00 - 13.30 Local Time<br>11.00 - 12.30 CET Time | Lunch Break | |

# Building a Community of SPI* Knowledge

*SPI … 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.

Organized by ISCN
www.iscn.com