Experiences with ASPICE for Cybersecurity Assessments

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Presenter

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- INTACS VDA Certified **Trainer ASPICE for Cybersecurity (member of development team)**
- **VW-SQIL**
- 34 years Automotive experience
- EuroSPI/ASA (Automotive Skills Alliance) **Certified Cybersecurity Engineer/Manager Trainer**
- EuroSPI/ASA (Automotive Skills Alliance) **Certified Functional Safety Manager and Trainer**
- **ISO 26262 ASIL B, ASIL C and ASIL D project experiences** (also as Safety Manager, Safety Engineer or Assessor)
- **Experiences with cybersecurity ASPICE assessments** and cybersecurity projects / implementations
- Chair and founder of EuroSPI conferenceseries https://conference.eurospi.net/index.php/en/
- Editor of EuroSPI book series https://link.springer.com/conference/eurospi
- Moderator of SOQRATES working group of Tier 1 and OEMs – Experience exchange in ISO 26262, ISO 21434, ASPICE, and HAD vehicle topics

Research Profile

https://scholar.google.com/citations?user=v2xVlnwAAAAJ&hl=de&oi=ao

Richard Messnarz

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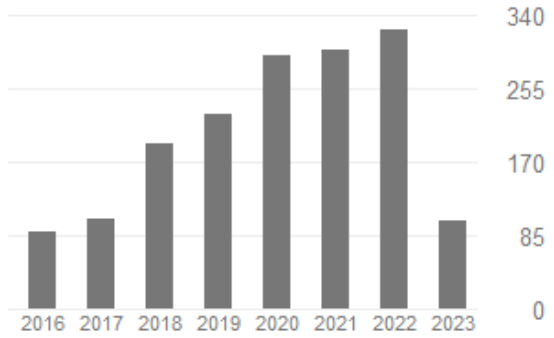
Bestätigte E-Mail-Adresse bei iscn.com - Startseite

SPI Functional Safety Autom...

Zitiert von		ALLE ANZEIGEN
	Alle	Seit 2018
Zitate	2527	1440
h-index	27	17
i10-index	82	49



5 Important Practical Experiences Shared at TechDay

Attend the key note at the EuroSPI Conference for more

ASPICE for Cybersecurity Assessments – Experiences 1/5

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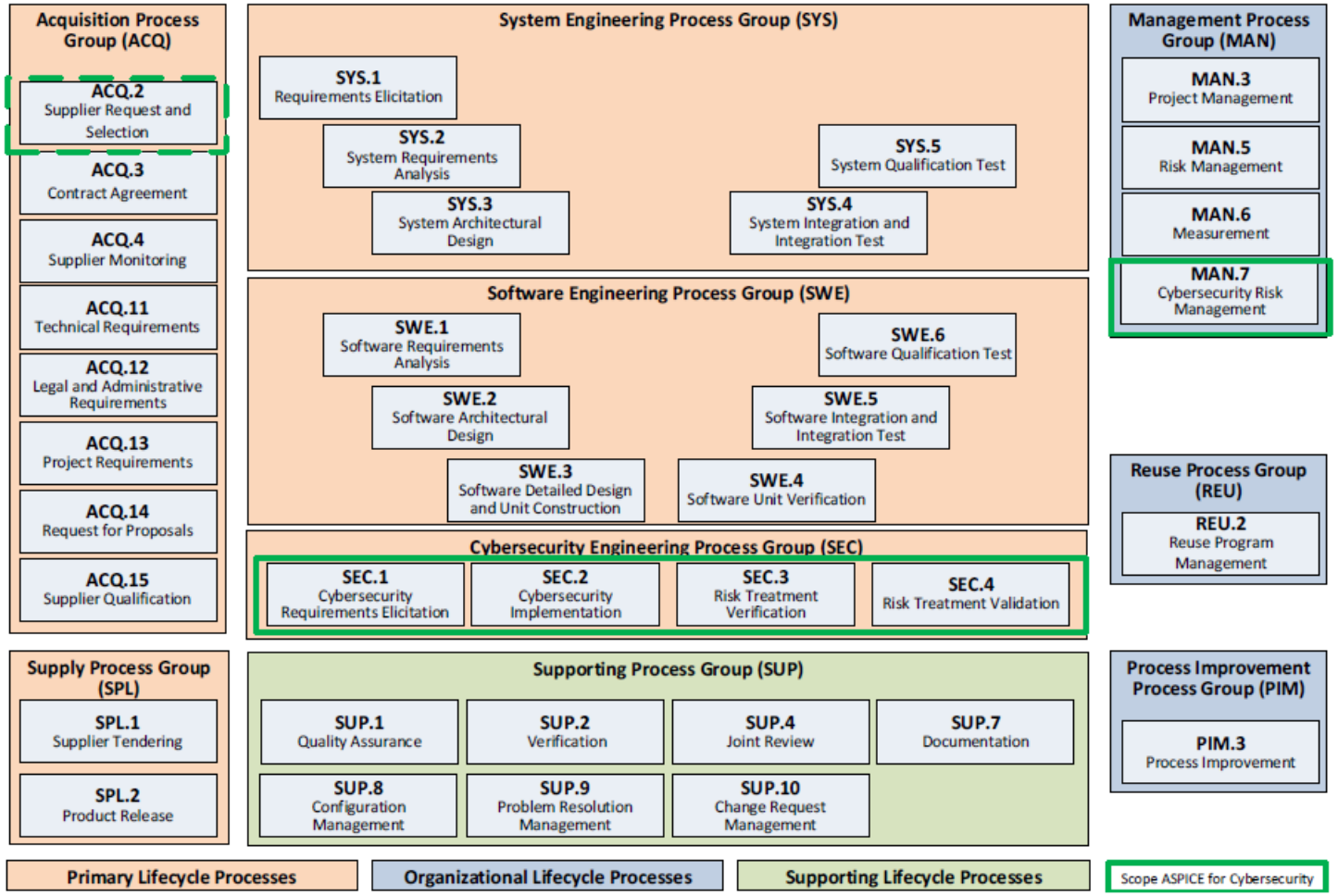
- ISCN Experiences with the assessment model (in assessments with co-assessors from AUDI AG, MB, lead Tier 1).



- MAN.7, SEC.1, SEC.2, SEC.3 have always been selected for the assessments.
- ACQ.2 so far has not been selected at all
- ACQ.4 (not marked in model, only in guideline mentioned as extended) was always selected and had to be rated separately for the CS relevant supplier
- SEC.4 penetration test had to be done by an independent organisation. Still SEC.4 at Tier has been assessed for the cybersecurity case validation part. And the contract and reports from the penetration test were checked.

ASPICE for Cybersecurity Assessments – Experiences 2/5

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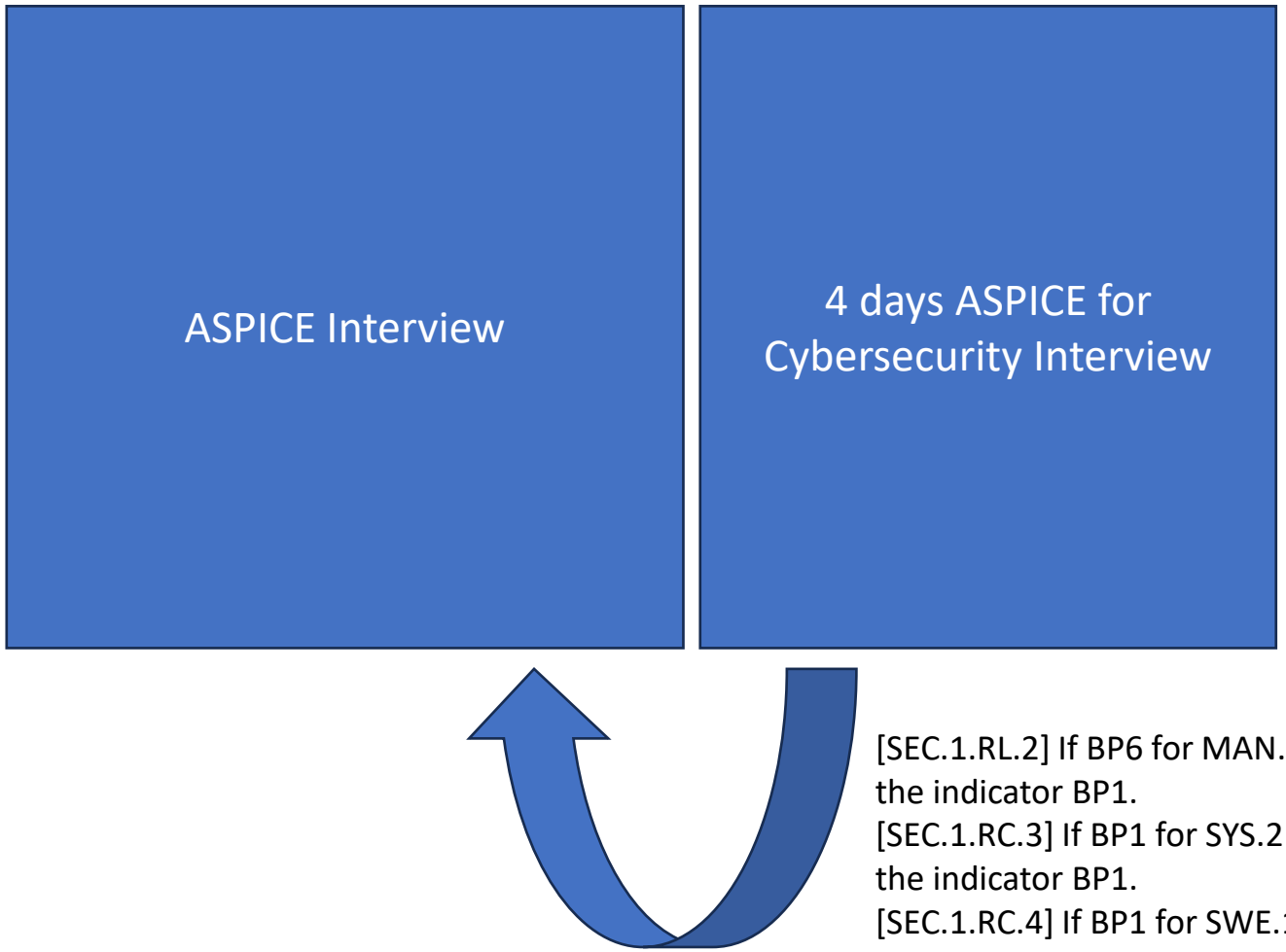
- ISCN Experiences with the interview plan and consolidation of overall results



- In AUDI/VW case the ASPICE for cybersecurity interview was done after the ASPICE interviews.
  - Attention: If rating in SEC.x processes was then low, this had an impact on the overall rating also of SYS.x and SWE.x
- In MB case the assessments we had did not make an extra interview, we checked the TARA, SSA of MB, NEST Test etc. and we rated normal ASPICE processes down in case of missing cybersecurity practices.
  - Attention: They told us that they consider also the ASPICE for Cybersec ratings in future.

[SEC.1.RL.2] If BP6 for MAN.7 is downrated, this shall be in line with the rating of the indicator BP1.
[SEC.1.RC.3] If BP1 for SYS.2 is downrated, this should be in line with the rating of the indicator BP1.
[SEC.1.RC.4] If BP1 for SWE.1 is downrated, this should be in line with the rating of the indicator BP1.

ASPICE for Cybersecurity Assessments – Experiences 3/5

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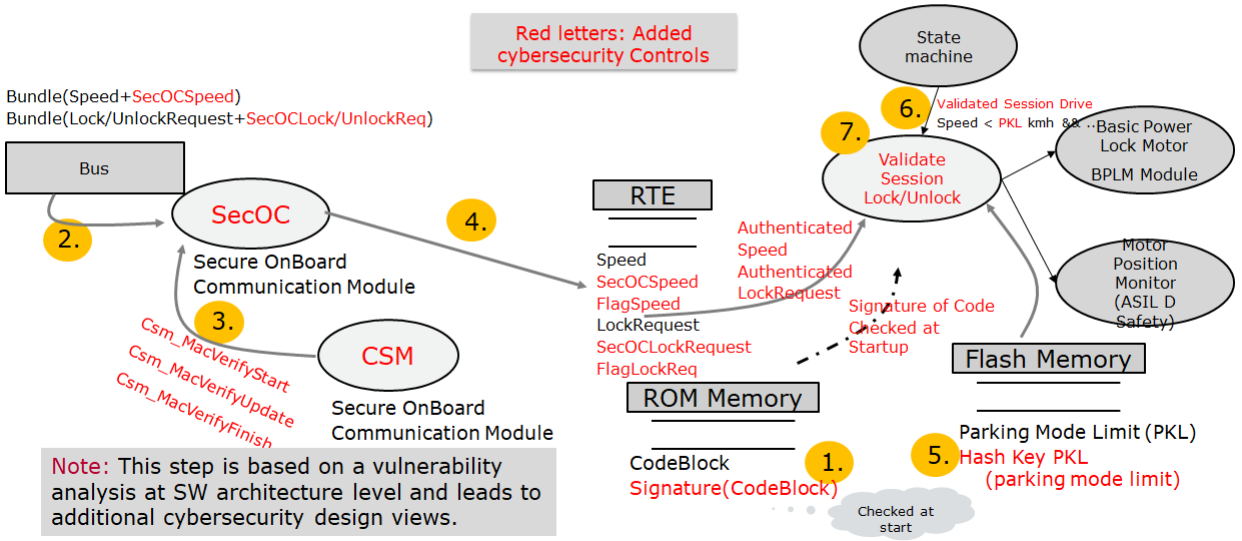
- ISCN Experiences with understanding the practices in the ASPICE for Cybersecurity model

Simplified functional flow after adding the cybersecurity controls



Note: This step is based on a vulnerability analysis at SW architecture level and leads to additional cybersecurity design views.

(1) The code block of the SWin the ROM is signed with a key (no authenticated code change has happened).
(2) Authentication and integrity of the messages lock/unlock request, speed by SecOC (Secure OnBoard Communication) and MAC (Message Authentication Code).
(3) The lib SecOC uses the CSM lib MacVerify function to check the message authenticity.
(4) On RTE if MacVerify is failing a fault flag is set.
(5) The speed parameter is secured by a hash key (data integrity).
(6), (7) Before a lock/unlock command is further interpreted (for whitelisting strategy of functions) a validation session drive mode function checks the state of the system (speed authentication was ok, lock/unlock request message authentication is ok, etc.) and then calls the Basic Power Lock Motor function of the electronic motor control unit.

- The ASPICE for Cybersecurity Assessment Model is not enough to understand what exactly an assessor needs to check.
- The ASPICE for Cybersecurity Guideline provides more details, still misses practical examples of work products an assessor needs to find.
- Therefore IT IS REQUIRED to look in detail at the INTACS training materials and examples. E.g. Do you know how a modelled cybersecurity use case should look like? Or, e.g. Do you know the functions an HSM normally would offer, do you ask this in the assessment scope?
- And you need to be interested to read and learn from examples.

ASPICE for Cybersecurity Assessments – Experiences 4/5

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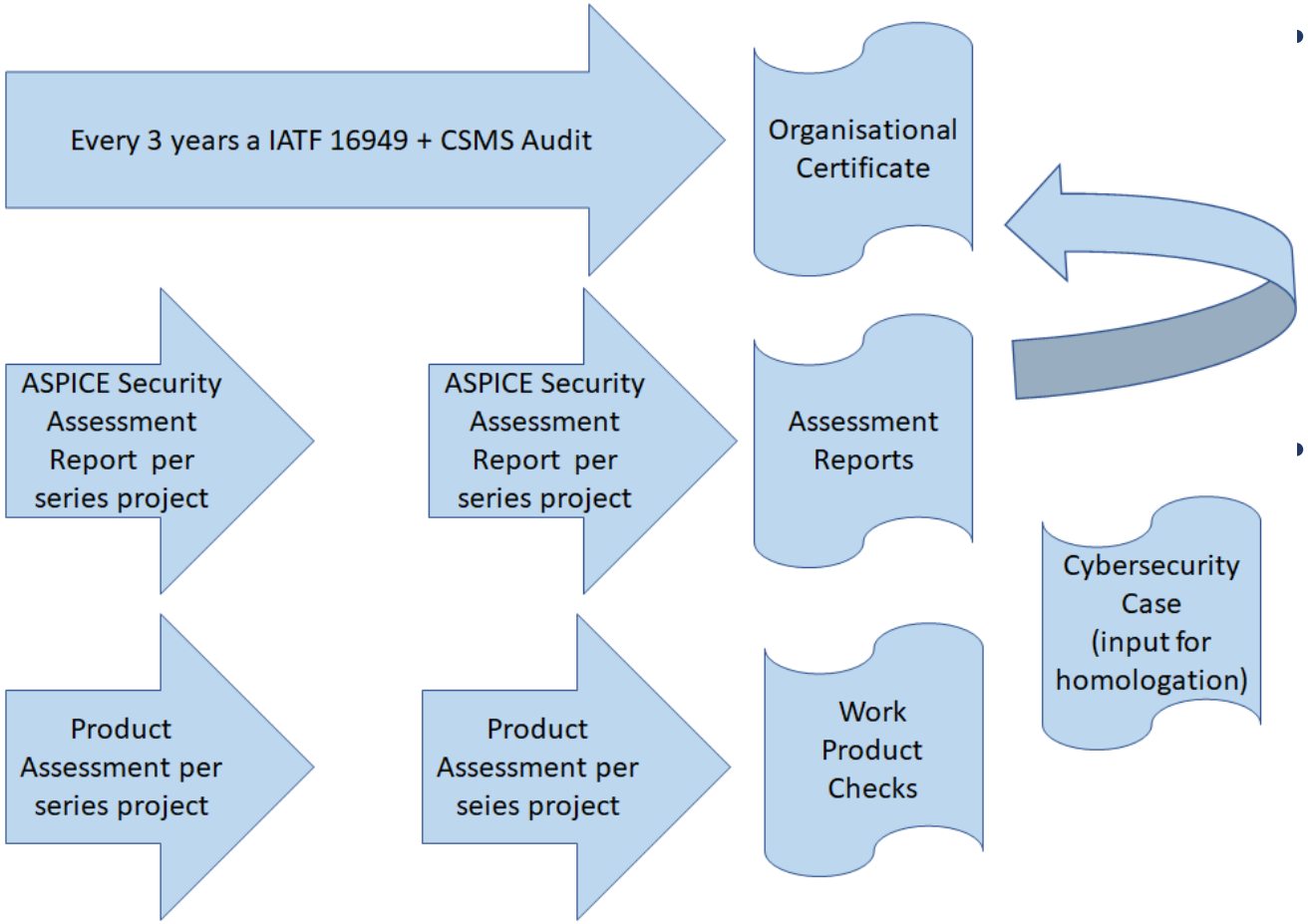
- ISCN Experiences with relationships between TISAX, CSMS Audit and ASPICE for Cybersecurity



- A lot of misunderstanding at top management still:
  - The manager stated (not saying which Tier 1): "We have the TISAX successfully passed, so he expects a level 1 Fully now in all ASPICE for Cybersecurity Processes!".
- In reality you can still have level 0 in all ASPICE for cybersecurity processes, even if TISAX is in place!

ASPICE for Cybersecurity Assessments – Experiences 5/5

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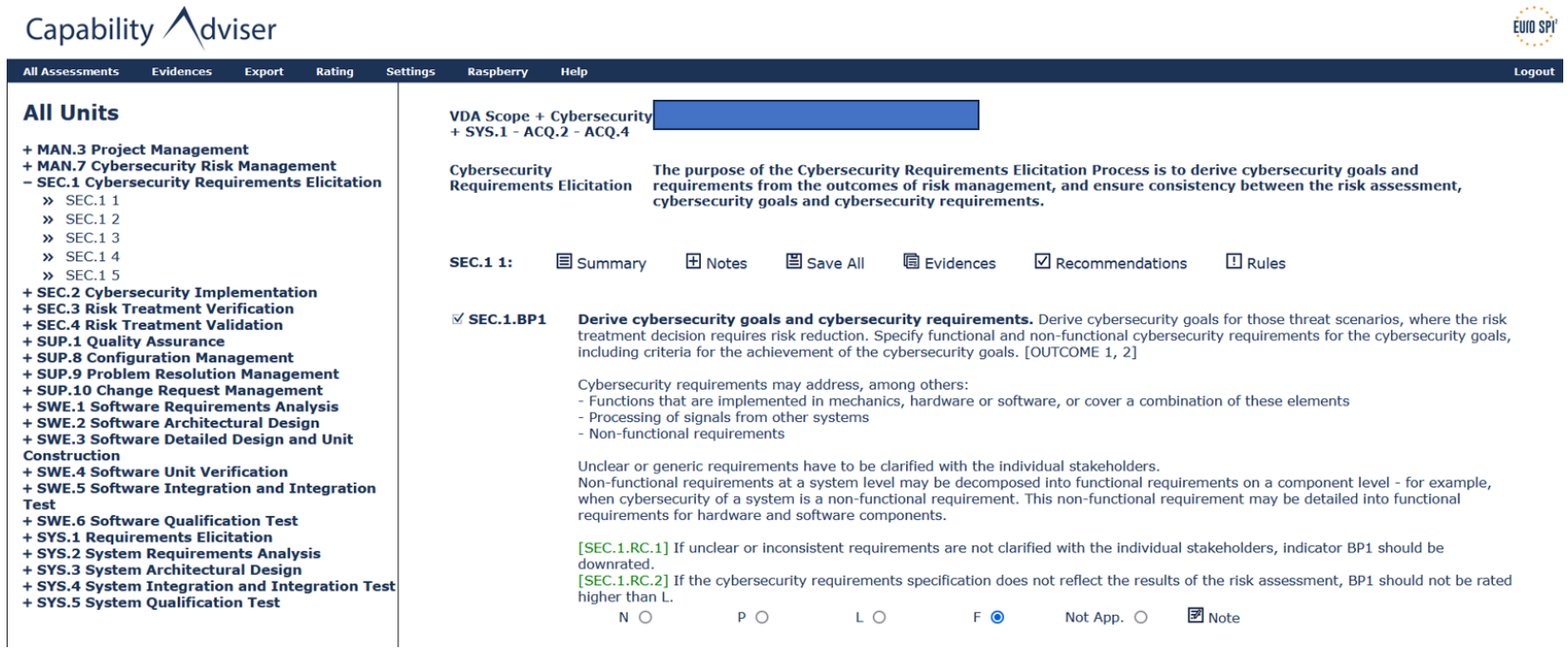
- ISCN Experiences with assessment performance



- Assessments for systems that integrate cybersecurity stacks and further function libs are usually with distributed teams.
- This then requires an infrastructure where in a hybrid set up teams assessors are onsite and online and work through an assessment tool / infrastructure.
- The tool must support teamwork and the guidelines.

Thanks

Thank you for cooperating with ISCN.

1. ISCN is INTACS certified training provider for Automotive SPICE assessor courses
2. ISCN is certified by VDA to hold provisional and competent ASPICE assessor courses

3. ISCN moderates the German task force SOQRATES (https://soqrates.eurospi.net) since 2003 where >20 Tier 1 collaborate on ASPICE, Safety and Security.

4. 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

5. EuroSPI certificates are issued by EuroSPI Certificates & Services GmbH (www.eurospi.net) in cooperation with DRIVES and the Automotive Skills Alliance (ASA). The ASA was founded by the EU Blueprint Project Drives and ALBATTS with support from the European Automobile Manufacturers' Association (ACEA). https://www.eurospi.net. ISCN is founding member.

Thanks

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